

Adding Notes/FX fields to a Notes form

You exchange data between Notes and 1-2-3 by adding a field to a Notes form that matches the name of a 1-2-3 Workbook Properties field or range name that is defined for Notes/FX™.

1. In Notes, choose Design - Forms from the Folders navigator.
2. Select a form to edit, or choose Create - Design - Form to create a new form.
3. Choose Create - Field.
4. Enter the Notes field name of a 1-2-3 Workbook Properties field or range name that is defined for Notes/FX.

{button ,AL('H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FORM_DETAILS',1)} [See details](#)

{button ,AL('H_EMBEDDING_A_123_OBJECT_IN_AN_EXISTING_NOTES_FORM_STEPS;H_ENABLING_DOC_IN
FO_FIELDS_FOR_EXCHANGE_WITH_NOTES_STEPS;H_SETTING_UP_NOTES_FIELD_EXCHANGE_OVER;' ,0)} [See related topics](#)

Creating a new Notes document

If a Notes form contains an embedded 1-2-3 workbook object, Notes embeds a new copy of the object in each new document you compose.

1. In Notes, choose Create.
2. Choose the name of a form that contains an embedded 1-2-3 workbook object.
3. If the form does not automatically start 1-2-3, double-click the 1-2-3 workbook object.
4. In 1-2-3, enter new information in the workbook.

{button ,AL('H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FORM_STEPS',0)} [See related topics](#)

Details: Adding Notes/FX fields to a Notes form

1-2-3 Workbook Properties fields

To create a field that exchanges Workbook Properties data, use a Notes field name and data type listed in the table below.

Workbook Properties field	Notes field name	Data type
Created by	From	Text
Title	Title	Text
Subject	Subject	Text
Keywords	Categories	Text
Description	DocumentComments	Text
Revision history	RevisionComments	Text
Created	Date	Date
Last edited	LastRevisionDate	Date
Last edited by	LastEditor	Text
Total revisions	NumberOfEdits	Number
Total edited time	EditingTime	Number
Sheets	SizeInPages	Number
Size	SizeInCharacters	Number
(not displayed)	DocumentClass	Text
(not displayed)	PageTitles	Text

{button ,AL('H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FORM_STEPS',1)} [Go to procedure](#)

Details: Embedding a 1-2-3 workbook object in a Notes document

By embedding a 1-2-3 workbook object in an existing Notes document, you can:

- Use Notes to store different 1-2-3 sheets
- Collect data for a group of otherwise unrelated sheets
- Use Notes to distribute 1-2-3 sheets to members of your workgroup
- Use Notes dial-in features to allow remote users to work on 1-2-3 sheets
- Use Notes to view and sort the 1-2-3 sheets according to contents of Notes/FX fields

For more information, see your Notes documentation.

{button ,AL('H_EMBEDDING_A_123_OBJECT_IN_AN_EXISTING_NOTES_FORM_STEPS',1)} [Go to procedure](#)

Details: Embedding a 1-2-3 workbook object in a Notes form

By embedding a 1-2-3 workbook object in a Notes form, you can:

- Use a common template for all 1-2-3 sheets.
- Include a consistent set of fields in all 1-2-3 sheets.
- Provide a consistent 1-2-3 sheet style for a group of users who share the same Notes database.
- Use Notes security features to protect 1-2-3 sheets from unauthorized reading or editing.
- Use Notes views to organize and categorize 1-2-3 sheets for tracking and reporting. For example, you can see which sheets were created in a particular month or on which projects each staff member worked.
- Use Notes formulas to track the tasks for a project. For example, you could track the number of days spent working on a group of 1-2-3 sheets on a project.

For more information, see your Notes documentation.

{button ,AL('H_EMBEDDING_A_123_OBJECT_IN_A_NOTES_FORM_DESIGN_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SETTING_UP_NOTES_FIELD_EXCHANGE_OVER;',0)} [See related topics](#)

Details: Setting up named ranges to exchange data with Notes

Adding new Notes/FX fields from the Workbook Properties dialog box

When you set up a named range as a Notes/FX field, 1-2-3 adds the range to the list of field names on the Notes/FX Fields tab in the Workbook Properties dialog box.

You can also add new Notes/FX fields by choosing New Field on the Notes/FX Fields tab in the Workbook Properties dialog box. Both the Workbook Properties dialog box and the InfoBox list the same ranges as Notes/FX fields.

Notes data types and exchange direction

The Notes data type and exchange direction of a 1-2-3 range depends on the type of range.

<u>1-2-3 range type</u>	<u>Notes data type</u>	<u>Exchange direction</u>
Single-cell range	Text, number, or date	Two-way
Single-cell range	Computed	One-way, from Notes to 1-2-3
Protected range	Text, number, or date	One-way, from 1-2-3 to Notes
Formula	Number	One-way, from 1-2-3 to Notes
Multiple-cell range	Text, number, or date with "Allow multiple values"	Two-way

NOTES FIELDS tables from previous releases of 1-2-3

In previous releases of 1-2-3, tables (ranges) containing Notes/FX fields were named 'NOTES FIELDS.'" This release of 1-2-3 still includes support for NOTES FIELDS tables. However, it's best to replace NOTES FIELDS tables with range name entries in the Workbook Properties dialog box.

If you are using a sheet that has a NOTES FIELDS table, do not create any Notes/FX ranges that overlap with the NOTES FIELDS table. A field name in the list of Notes/FX fields takes precedence over the same name in a NOTES FIELDS table. You can use other fields listed in the NOTES FIELDS table with Notes/FX.

{button ,AL('H_SETTING_UP_FIELDS_FOR_TWOWAY_EXCHANGE_WITH_NOTES_STEPS',1)} Go to procedure

Embedding a 1-2-3 workbook object in a Notes document

You can embed a 1-2-3 workbook object in any rich text field in an existing Notes document that contains Notes/FX fields, and update the Notes/FX fields from the 1-2-3 workbook.

1. In Notes, open a document for editing.
2. Position the insertion point where you want to insert the 1-2-3 workbook object.
3. Choose Create - Object.
4. To embed a new 1-2-3 workbook object in the Notes document, select "Create a new object" and select "Lotus 1-2-3 9 Workbook" as the object type.
5. To embed an existing 1-2-3 workbook as an object in the Notes document, select "Create an object from a file" and specify an existing 1-2-3 workbook.
6. Click OK.

{button ,AL('H_EMBEDDING_A_123_OBJECT_IN_AN_EXISTING_NOTES_FORM_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_UP_NOTES_FIELD_EXCHANGE_OVER;',0)} [See related topics](#)

Embedding a 1-2-3 workbook object in a Notes form

You can embed a 1-2-3 workbook object anywhere in a Notes form that contains Notes/FX fields. New documents composed using this form automatically include the embedded 1-2-3 workbook object.

1. In Notes, choose Create - Design.
2. Choose Form.
3. Position the insertion point where you want to insert the 1-2-3 workbook object.
4. Choose Create - Object.
5. To embed a new 1-2-3 workbook object in the Notes document, select "Create a new object" and select "Lotus 1-2-3 9 Workbook" as the object type.
6. To embed an existing 1-2-3 workbook as an object in the Notes form, select "Create an object from a file" and specify an existing 1-2-3 workbook.
7. Click OK.
8. Close the Notes form.
9. Click Yes to save the form.

{button ,AL('H_EMBEDDING_A_123_OBJECT_IN_A_NOTES_FORM_DESIGN_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_UP_NOTES_FIELD_EXCHANGE_OVER;',0)} [See related topics](#)

Overview: Exchanging data between 1-2-3 and Notes

Notes/FX lets you exchange field data between 1-2-3 and Notes. With Notes/FX, you can:

- Display any 1-2-3 Workbook Properties field in a Notes form
- Pass text and values in a 1-2-3 named range back and forth between Notes and 1-2-3
- Use NotesFlow to publish Notes actions to 1-2-3

Using Notes/FX

To use Notes/FX with 1-2-3, complete the following tasks:

- Define fields and ranges to exchange
- Embed a 1-2-3 workbook object that contains those fields or ranges in a Notes document or form design
- Create new Notes documents that exchange data with embedded 1-2-3 workbook objects

For example, you can create a Notes form for a sales report and embed a 1-2-3 workbook object in the form. When you compose a new report, Notes passes data to 1-2-3, which uses this information to calculate the report.

When you complete the sales report and close 1-2-3, you can update the 1-2-3 workbook object embedded in the Notes form. Information from the sales report, such as the name and address of the company and the total sales for the period, now appears in the Notes document or in the Notes view. The sales report is centrally stored in a Notes database with other sales reports.

Using NotesFlow to publish Notes actions to 1-2-3

Notes/FX also lets you use NotesFlow technology to publish Notes actions to 1-2-3 and other Lotus desktop products. With NotesFlow, you can create a Notes action using formulas or scripts and publish the action in a Notes form. When you edit or view a 1-2-3 workbook object that is embedded in the form, the NotesFlow action appears in the 1-2-3 Actions menu.

NotesFlow publishing lets you define a sequence of tasks that gives you control over the flow of work. For example, you can integrate file creation and storage in other desktop products with the document sharing, storage, security, and management tools in Notes.

For more information about NotesFlow publishing, see the Notes application developer documentation.

```
{button ,AL('H_SETTING_UP_NOTES_FIELD_EXCHANGE_OVER;H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FORM_STEPS;H_CREATING_A_NEW_NOTES_DOCUMENT_STEPS;H_EMBEDDING_A_123_OBJECT_IN_A_N_EXISTING_NOTES_FORM_STEPS;H_EMBEDDING_A_123_OBJECT_IN_A_NOTES_FORM_DESIGN_STEP S;H_SETTING_UP_FIELDS_FOR_TWOWAY_EXCHANGE_WITH_NOTES_STEPS;H_UPDATING_FIELDS_IN_A_NOTES_DOCUMENT_FROM_123_STEPS;H_UPDATING_INFORMATION_IN_123_FROM_A_NOTES_DOC UMENT_STEPS',0)} See related topics
```

Overview: Setting up Notes/FX

To set up Notes/FX, you first embed a 1-2-3 workbook object in a Notes form or document. Then, you define fields or ranges in the embedded workbook object to exchange with corresponding fields in Notes. You can also run Notes formulas and scripts while working in an embedded 1-2-3 workbook object.

What can you exchange?

You can exchange the following types of data between 1-2-3 and Notes:

- 1-2-3 Workbook Properties fields
- Data in 1-2-3 cells and named ranges

1-2-3 Workbook Properties fields

1-2-3 supplies Workbook Properties fields with predefined names that contain information about a workbook file, such as its description and creation date. You can use any of these fields for exchange with Notes.

1-2-3 cells and named ranges

To use 1-2-3 cells and named ranges with Notes/FX, you specify a range name in 1-2-3 that matches a Notes field name as a Notes/FX field. You can exchange text and numbers in both directions. Data in protected cells and formula results can only move one way, from 1-2-3 to Notes.

```
{button ,AL('H_USING_NOTES_FIELD_EXCHANGE_OVER;H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FOR  
M_STEPS;H_CREATING_A_NEW_NOTES_DOCUMENT_STEPS;H_EMBEDDING_A_123_OBJECT_IN_AN_EX  
ISTING_NOTES_FORM_STEPS;H_EMBEDDING_A_123_OBJECT_IN_A_NOTES_FORM_DESIGN_STEPS;H_  
SETTING_UP_FIELDS_FOR_TWOWAY_EXCHANGE_WITH_NOTES_STEPS;H_UPDATING_FIELDS_IN_A_N  
OTES_DOCUMENT_FROM_123_STEPS;H_UPDATING_INFORMATION_IN_123_FROM_A_NOTES_DOCUME  
NT_STEPS',0)} See related topics
```

Setting up named ranges to exchange data with Notes

1. Select the named range.
2. Choose Range - Range Properties.
3. Click the Basics tab.



4. Specify a range name that matches a Notes field name.
5. Select "Notes/FX field."

{button ,AL('H_SETTING_UP_FIELDS_FOR_TWOWAY_EXCHANGE_WITH_NOTES_DETAILS',1)} [See details](#)

{button ,AL('H_ADDING_NOTESFX_FIELDS_TO_A_NOTES_FORM_STEPS',0)} [See related topics](#)

Updating fields in a Notes document from 1-2-3

You can update Notes to reflect any changes made in 1-2-3 Notes/FX fields that support updates to Notes.

1. In Notes, display the document that contains the fields you want to update.
2. Double-click the embedded 1-2-3 workbook object.
3. In 1-2-3, enter any new information into Notes/FX fields.

The Notes document is automatically updated.

{button ,AL('H_UPDATING_INFORMATION_IN_123_FROM_A_NOTES_DOCUMENT_STEPS;H_USING_NOTES_F
IELD_EXCHANGE_OVER;',0)} See related topics

Updating information in 1-2-3 from a Notes document

When the 1-2-3 sheet contains editable fields defined for use with Notes/FX, you can update these fields in the Notes form.

1. In Notes, select the document you want to edit.
2. Choose Actions - Edit Document.
3. Enter new information in the Notes/FX fields.
The 1-2-3 workbook object is automatically updated.

{button ,AL('H_UPDATING_FIELDS_IN_A_NOTES_DOCUMENT_FROM_123_STEPS;H_USING_NOTES_FIELD_EXCHANGE_OVER;',0)} [See related topics](#)

Creating an add-in

You can create an add-in file using the scripts in the current workbook. 1-2-3 leaves the source workbook in memory, and creates the add-in file.

1. Choose File - Add-Ins - Create Add-In.
2. Specify the file name and path in which to save the add-in file.
3. (Optional) Enter text in the "Description" box.
4. Click Save.

{button ,AL('H_CREATING_ADDINS_DETAILS',1)} [See details](#)

{button ,AL('H_ADDINS_OVER;H_LOADING_AN_ADDIN_STEPS;H_REGISTERING_ADDINS_STEPS;H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS;H_REMOVING_ADDINS_FROM_THE_ADDIN_LIST_STEPS',0)}
[See related topics](#)

Details: Creating an add-in

Compiling new add-ins

When you create an add-in, 1-2-3 compiles all the scripts in the source workbook. If there are any compile-time errors, they are shown in the Errors list in the Script Editor and the Create Add-In command is terminated. If there are no compile-time errors, the Create Add-In dialog box appears.

Saving add-ins

When you create a new add-in, a dialog box appears asking if you want to save it. Click Yes to name and save the add-in.

Naming new add-ins

When you save a new add-in, 1-2-3 automatically gives it the same name as the source file, but with the file extension .12A. All add-ins for this release of 1-2-3 should use this file extension.

{button ,AL('H_CREATING_ADDINS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Details: Loading add-ins**Specifying custom functions in add-ins**

When you load an add-in that contains global functions, you can use those functions from any active file. You do not have to include the directory location when you specify the file name.

Reloading add-ins

If you select an add-in to be loaded, that add-in will remain checked and will be reloaded into memory in subsequent 1-2-3 sessions. If you do not want an add-in loaded into memory, you must select it again to remove the check mark.

{button ,AL('H_LOADING_AN_ADDIN_STEPS',1)} Go to procedure

Details: Unloading add-ins

If you remove an add-in from memory, you do not delete the file from disk. However, you must register the add-in before you can load it again. Any formula that contains references to @functions from an add-in not in memory evaluates to ERR.

{button ,AL('H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS',1)} [Go to procedure](#)

{button ,AL('H_ADDINS_OVER;H_CREATING_ADDINS_STEPS;H_LOADING_AN_ADDIN_STEPS;H_REGISTERING_ADDINS_STEPS',0)} [See related topics](#)

Loading add-ins

You can select which add-ins to load into memory each time you start 1-2-3. An add-in must be registered before you can load it.

1. Choose File - Add-Ins - Manage Add-Ins.

The Manage Add-Ins dialog box appears, and lists all registered add-ins.

2. Click each add-in name to select the add-ins you want to load.

A check mark appears to the left of each selected add-in.

3. Choose Done.

The selected add-ins are loaded, and can now be used in 1-2-3.

{button ,AL('H_LOADING_AN_ADDIN_DETAILS',1)} [See details](#)

{button ,AL('H_ADDINS_OVER;H_CREATING_ADDINS_STEPS;H_REGISTERING_ADDINS_STEPS;H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS;H_REMOVING_ADDINS_FROM_THE_ADDIN_LIST_STEPS;H_LOADING_THE_DATA_QUERY_ADDIN_STEPS;;;S98',0)} [See related topics](#)

Manage Add-Ins dialog box

You can use this dialog box to load an add-in, register an add-in in the add-in list, or remove an add-in from either memory or the add-in list.

Choose a task

[Loading an add-in](#)

[Registering an add-in](#)

[Unloading an add-in](#)

[Removing an add-in from the Manage Add-Ins list](#)

{button ,AL('H_ADDINS_OVER',0)} [See related topics](#)

Overview: Add-ins

An add-in is a special .123 file, created by Lotus or other software developers, that you can use with 1-2-3 to extend its capabilities. Add-ins let you package a workbook file so that the functionality the file contains appears to be built into 1-2-3. Users cannot change or read these files.

1-2-3 add-in files can contain add-in applications or @functions. You access an add-in file by calling the global subroutines and/or functions with preassigned custom menu commands or a published set of @functions, or when you press an assigned CTRL-key combination.

Add-in applications perform a specific task in 1-2-3. Add-in @functions are used in formulas just like 1-2-3 @functions.

You can create add-ins, register them, load them into memory, and remove them from memory.

You can't use add-ins designed for previous 1-2-3 releases that run in other environments, such as DOS or OS/2. If you want to use such an add-in, contact the developer or manufacturer of the add-in to see if a version is available for this release of 1-2-3.

Using the Data Query Add-In (DQA)

The Data Query Add-In (DQA), an add-in that comes with 1-2-3, offers data query functionality that is similar to that in 1-2-3 Release 5. When you load the add-in, you can open 1-2-3 Release 5 files that contain query tables and work with them in the current version of 1-2-3 much as you did in 1-2-3 Release 5. You can also create new query tables to examine and analyze data from one or more database tables.

```
{button ,AL('H_CREATING_ADDINS_STEPS;H_LOADING_AN_ADDIN_STEPS;H_REGISTERING_ADDINS_STEP  
S;H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS;H_USING_ADDIN_ATFUNCTIONS_OVER;H_REMOVI  
NG_ADDINS_FROM_THE_ADDIN_LIST_STEPS;H_123_LOADING_THE_DATA_QUERY_ADDIN_STEPS;;;S98',  
0)} See related topics
```


Registering add-ins

You can register add-ins that do not appear in the list of add-ins in the Manage Add-Ins dialog box.

1. Choose File - Add-Ins - Manage Add-Ins.
2. Click Register.
3. Specify the directory that contains the add-in you want to register.
The add-ins included in the specified directory are listed.
4. Select the add-in you want to register.
5. Click Open.

```
{button ,AL('H_ADDINS_OVER;H_CREATING_ADDINS_STEPS;H_REGISTERING_ADDINS_STEPS;H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS;H_LOADING_AN_ADDIN_STEPS;H_REMOVING_ADDINS_FROM_THE_ADDIN_LIST_STEPS',0)} See related topics
```

Removing add-ins from the Manage Add-Ins list

You can remove add-ins from the list of registered add-ins in the Manage Add-Ins dialog box.

1. Choose File - Add-Ins - Manage Add-Ins.

The Manage Add-Ins dialog box appears, and lists all registered add-ins.

2. Click the add-in(s) you want to remove from the list.
3. Click Remove.

{button ,AL('H_ADDINS_OVER;H_CREATING_ADDINS_STEPS;H_REGISTERING_ADDINS_STEPS;H_REMOVING_AN_ADDIN_FROM_MEMORY_STEPS;H_LOADING_AN_ADDIN_STEPS',0)} [See related topics](#)

Unloading add-ins

You can select which registered add-ins to remove from memory, or unload.

1. Choose File - Add-Ins - Manage Add-Ins.

The Manage Add-Ins dialog box appears, and lists all registered add-ins. A check mark appears to the left of the add-ins selected to be loaded into memory.

2. Click the add-in(s) you want to unload.

The check mark next to the add-in(s) disappears.

3. Click Done.

If the add-in displays a context menu, the menu will remain until you restart 1-2-3. If you try to use a context menu after unloading its add-in, you will receive an error message.

{button ,AL('H_REMOVING_AN_ADDIN_FROM_MEMORY_DETAILS',1)} [See details](#)

{button ,AL('H_ADDINS_OVER;H_CREATING_ADDINS_STEPS;H_LOADING_AN_ADDIN_STEPS;H_REGISTERING_ADDINS_STEPS;H_REMOVING_ADDINS_FROM_THE_ADDIN_LIST_STEPS',0)} [See related topics](#)

Using add-in @functions

You use add-in @functions just as you use 1-2-3 @functions.

Add-in @function format

Add-in @functions have the same format as any 1-2-3 @function:

@FUNCTION

or

@FUNCTION(*arg1,arg2,...,argn*)

where:

@FUNCTION represents the name of the @function. It tells 1-2-3 which calculation to perform.

arg1,arg2,...,argn represent arguments. Arguments supply the information 1-2-3 needs to complete the @function calculation. For example, when 1-2-3 encounters the function @SUM(B4..B25), the argument B4..B25 tells 1-2-3 to add the values in the range B4..B25.

File references in add-in @functions

You cannot have more than one add-in @function with the same name in memory at the same time, even if the add-in @functions are located in different files. 1-2-3 always uses the @function from the first add-in file loaded into memory.

You can choose an @function from another .123 file in memory by specifying @<<FILENAME>>FUNC. You don't need to specify this string for add-ins, as 1-2-3 searches them automatically. While add-ins supported in earlier versions of 1-2-3 won't work in the current release of 1-2-3, you can rewrite an old @function in a new add-in.

A candidate @function is any global function that returns a string or number, and whose arguments are strings, numbers, or range objects. Range object arguments must be declared as Variant. If a number is returned, it must be of data type integer, double, or long.

{button ,AL('H_ADDINS_OVER',0)} [See related topics](#)

Argument types

Many @functions and macros require you to supply data to work on. This data is called an argument. For example, in the following @function, the argument is the range address D1..D7, enclosed in parentheses:

@SUM(D1..D7)

1-2-3 @functions and macros accept four types of arguments: condition, location, text, and value.

Condition

A condition is an expression that uses a logical operator (=, <, >, <>, >=, <=, #NOT#, #AND#, and #OR#), or the address or name of a cell containing a logical expression. You can also use a formula, @function, or a number (1 for true, 0 for false) as a condition. The @function or macro evaluates the condition argument and proceeds according to whether it is true or false.

Location

A location is the address or name of a range, or a formula or @function that produces the address or name of a range. A location argument can refer to a single cell or a multiple-cell range in one or more sheets in a single workbook.

Text

Text is any sequence of letters, numbers, and symbols enclosed in " " (quotation marks), the address or name of a cell that contains a label, or a formula or @function that produces a label.

Note In @functions that use text arguments for dates, you should always specify a 4-digit year to make sure you get the results you want -- for example, "12/31/2005." If you specify a 2-digit year, 1-2-3 uses the date setting in the 1-2-3 Preferences dialog box to determine whether the year refers to the 20th or the 21st century.

Value

A value is a number, the address or name of a cell that contains a number, or a formula or @function that produces a number.

{button ,AL('H_FUNC_BASICS;H_FUNC_GUIDE_STAT;H_FUNC_GUIDE_DBASE;H_ENTERING_AN_ATFUNCTION_STEPS;H_123_MACROS_OVER;H_WRITING_A_MACRO_STEPS;H_CHANGING_THE_ARGUMENT_SEPARATOR_STEPS;',0)} See related topics

Details: Entering an @function

Other ways to enter an @function

You can also enter an @function by typing it directly in the cell and enclosing the appropriate arguments in parentheses.

You can add the @functions you use frequently to the @function menu; then you can enter them without having to search the entire list of @functions.

Replacing range argument placeholders

When you enter an @function using the menu or the dialog box, 1-2-3 inserts the @function, along with placeholders for any arguments. To replace the placeholders for range arguments, type a range address or name, choose a name from the navigator, or select a range in the sheet.

Formatting @function results

For selected @functions, 1-2-3 automatically formats the result using the number format of the specified arguments. For example, if A1..A4 is formatted as Japanese Yen, and you enter @SUM(A1..A4) in A5, 1-2-3 formats the result in A5 as Japanese Yen.

1-2-3 does not automatically format the @function result if you:

- formatted the cell before entering the @function in it
- specified arguments that are in a different file
- combined an @function that 1-2-3 formats with an @function that 1-2-3 doesn't format

Viewing @functions

You can always view the @function in the selected cell by looking in the contents box. To display the @function in the cell, instead of the result, change the number format of the cell to Formula format.

Printing @functions

You can print @functions along with cell contents. To print @functions, choose File - Preview & Page Setup, click the Include tab, and select "Formulas" in the "Show" list.

Documenting an @function

You can annotate a cell's contents using a cell comment. To add a cell comment, use Range - Cell Comment.

Using formula markers

You can use formula markers to identify cells that contain @functions. Formula markers are turned off when you first start 1-2-3. To turn them on, use View - Set View Preferences.

{button ,AL('H_ENTERING_AN_ATFUNCTION_STEPS',1)} Go to procedure

{button ,AL('H_ADDING_AN_ATFUNCTION_STEPS;H_FORMATTING_NUMBERS_STEPS;H_CREATING_A_CELL_COMMENT_STEPS;H_PRINT_CHANGING_SELECTION_STEPS;',0)} See related topics

Entering an @function

When you enter an @function, the result of the calculation, not the @function, appears in the cell. The @function appears in the contents box.

1. Select the cell where you want to enter the @function.
2. Click the @function selector.

@Function selector



3. If the @function you want appears on the @function menu, choose it and continue to step 6.

If the @function you want does not appear on the @function menu, choose List All.

4. Select the @function from the "@Functions" list.

Tip To restrict the number of @functions in the list, select the category containing the @function.

5. Click OK.

The @function, with argument placeholders, appears in the cell.

6. Replace any argument placeholders with the appropriate arguments.

7. Press ENTER.

If 1-2-3 displays *** (asterisks) in the cell, widen the column.

{button ,AL('H_ENTERING_AN_ATFUNCTION_DETAILS',1)} [See details](#)

{button ,AL('H_FUNC_BASICS;H_FUNCTION_FORMAT_OVER;H_COMMON_ERRORS_IN_FORMULAS_OVER;H_INSTALLING_FUNCTION_HELP_STEPS;H_FUNCTIONS_ALPHA_REF;h_sizing_columns_steps;H_ARGUMEN
T_TYPES_OVER;H_CHANGING_THE_ARGUMENT_SEPARATOR_STEPS;',0)} [See related topics](#)

Entering criteria in database @functions

Criteria tell 1-2-3 which records to select from a database table.

Matching an exact label or number

Enter a label or number exactly as it appears in the database table as the value portion of the criteria. For example, enter CITY="Boston" as the criteria. To match a number exactly, enter the number, as in SALARY=45000.

Note 1-2-3 does not distinguish between uppercase and lowercase letters. For example, the label SMITH matches the entries Smith and smith.

Matching similar labels

Use wildcard characters to match similar labels. For example:

```
PERIOD="Q?"
```

Matching a date value

When a field contains date entries, enter a date. You can enter numbers or date @functions.

For example, to select everyone born before January 8, 1967, enter:

```
BIRTHDAY<@DATE(1967,1,8)
```

Matching values in a sheet

Use absolute references to match values in the sheet that are outside of the database table.

For example, to find all records in which sales is less than or equal to the number in cell D25, enter:

```
SALES<=$D$25
```

{button ,AL('H_ENTERING_MULTIPLE_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;H_REFERRING_TO_MULTIPLE_TABLES_IN_CRITERIA_OVER;H_FUNC_GUIDE_DBASE;',0)} [See related topics](#)

Entering multiple criteria in database @functions

You can select records that meet more than one condition. For example, you might want to see records for sales in May that were greater than \$2,000, or you might want to see sales records for May and June.

Meeting all conditions (#AND#)

Use #AND# to select records in which all conditions are true. For example, to select only records in which the month is May and the sales value is greater than 2000, enter this criteria:

```
Month="May"#AND#Sales>2000
```

Meeting at least one condition (#OR#)

Use #OR# to select records in which at least one of two or more conditions is true. For example, to select records in which the month is May or the sales value is greater than 2000, enter this criteria:

```
Month="May"#OR#Sales>2000
```

Meeting one condition and excluding one condition (#NOT#)

Use #NOT# to select records in which one condition is true and another condition is false. For example, to select records in which the city is Paris and the department is not Sales, enter this criteria:

```
City="Paris"#AND##NOT#Department="Sales"
```

{button ,AL('H_FUNC_GUIDE_DBASE;H_ENTERING_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;H_REFERRING_TO_MULTIPLE_TABLES_IN_CRITERIA_OVER',0)} [See related topics](#)

Overview: @Functions

1-2-3 @functions are built-in formulas that perform specialized calculations automatically. You can use an @function by itself as a formula, combine it with other @functions and formulas, or use it in a script or a macro.

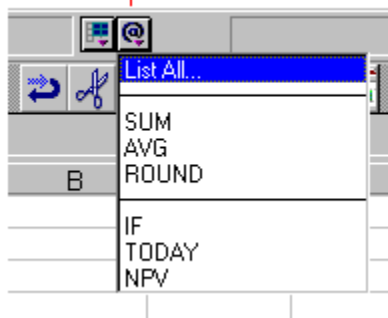
Some @functions perform simple calculations; for example, @SUM(D2..D7) adds the values in the range D2..D7 and is easier to enter than the formula +D2+D3+D4+D5+D6+D7.

Many @functions, however, simplify your work by performing complex calculations; for example, @NPV calculates the net present value of a series of future cash-flow values.

Entering @functions


The 1-2-3 @function menu lists a few of the most commonly used @functions. Click the @function selector to display the @function menu.

@Function selector



You can quickly use an @function by selecting it from the menu. In addition to the @functions on the menu, 1-2-3 provides over 300 other @functions. To choose from the complete list of @functions, choose List All from the @function menu.

To make entering @functions faster, you can change which @functions appear on the @function menu.

 [See related topics](#)

Getting Help on individual @functions

In addition to Help that describes how to use @functions, 1-2-3 provides detailed information on individual @functions.

Note Help on individual @functions is installed by default. However, if you ran a customized installation (also called "manual install") and chose not to install @Function Help, you do not have Help on individual @functions. You can install @Function Help at any time.

 [See related topics](#)

Parts of an @function

@Functions can contain these parts: an @ (at sign), the name of the @function, one or more arguments, and argument separators.



Arguments

An argument is the data you provide for 1-2-3 to use when it calculates the @function. Depending on the particular @function, an argument can be a single value, a range of cells, text, or another @function.

Arguments can be required or optional. You must enter required arguments, but you can omit the optional ones. The optional arguments are enclosed in [] (brackets) in the descriptions you see in the @Function List dialog box and in the Help on individual @functions.

If an @function contains more than one optional argument, you must use the arguments sequentially. You can't use an optional argument without using the optional arguments that precede it. You can, however, use an optional argument without using subsequent optional arguments.

Some @functions, such as @NOW, @RAND, and @TRUE, don't have arguments.

Argument separators

When you use more than one argument with an @function, you separate the arguments with an argument separator, typically a ; (semicolon). You can specify a different argument separator using regional (country) settings in your operating system.

Quotation marks

Quotation marks enclose the text for text arguments. For example, the following @function uses the text argument Sales Forecast:

```
@LOWER("Sales Forecast")
```

1-2-3 assumes that text not enclosed in quotation marks is either a range name or a [SmartLabel](#).

Parentheses

Parentheses enclose @function arguments. Nested parentheses enclose an @function that you use as an argument for another @function. For example, you use nested parentheses when you use @SUM and its argument as the argument for @INT as follows:

```
@INT (@SUM (D1 . . D7) )
```

{button ,AL('H_FUNC_BASICS;H_ARGUMENT_TYPES_OVER;H_CHANGING_THE_ARGUMENT_SEPARATOR_STEPS;H_INSTALLING_FUNCTION_HELP_STEPS;H_ENTERING_AN_ATFUNCTION_STEPS;','0')} [See related topics](#)

Help on individual @functions

Help on individual @functions is not currently installed. For information, see [Installing Help on individual @functions.](#)

Using the @Function List dialog box

You can use the @Function List dialog box to enter the name of an @function in a cell, along with [argument placeholders.](#) To display the dialog box if it is not currently displayed, enter @ (at sign) in a cell and press F3 (NAME), or click the [@function selector](#) and choose List All from the @function menu.

Choose a topic

[Entering an @function](#)

[Adding an item to the @function menu](#)

[Removing an item from the @function menu](#)

{button ,AL('H_FUNC_BASICS',0)} [See related topics](#)

Database @function arguments

Database @functions scan one or more input database tables, select the records that match the specified criteria, and then perform calculations on the selected records in the field you specify.

Note A database @function that refers to external database tables is recalculated each time any value in the sheet changes. A database @function that refers only to database tables in the workbook is recalculated only when a value the @function depends on changes.

The *input* argument

input is the name or address of a range that contains a database table or the name of an external table.

There is no limit to the number of tables you can use in *input*, provided that the total number of characters in the cell that contains the @function does not exceed 512.

To use more than one table as an *input* argument, separate them with valid argument separators. When 1-2-3 calculates a database @function, it reads the arguments from right to left. 1-2-3 uses the last argument in the @function as the *criteria*, the next to last argument as the *field*, and the remaining arguments as *input* tables.

For example, the following formula uses two input tables, SALES and INVENTORY:

```
@DAVG (SALES; INVENTORY; "PRICE"; +Sales.ProductID=
Inventory.ProductID#AND#PRODUCT="FILTERS")
```

In this formula, *criteria* is +Sales.ProductID=Inventory.ProductID#AND#PRODUCT="FILTERS", and *field* is "PRICE".

The *field* argument

field is the field name, enclosed in " " (quotation marks), the name or address of a cell containing the field name, or a field offset number.

If you use more than one table as an *input* argument (either in the sheet or from an external database table) and *field* is not a unique field name (it appears in more than one of the *input* tables), *field* must be the name of the table followed by a period and the field name, enclosed in quotation marks.

For example, if the field name Cost appears in two tables, GOTHAM and MAYFAIR, "GOTHAM.Cost" refers to the field name Cost in the table GOTHAM.

The *criteria* argument

criteria is a criteria formula or the name or address of a criteria range.

If you use only one table as an *input* argument, you can omit *criteria*. If you omit *criteria*, 1-2-3 includes all records from *input*.

If you use multiple tables for *input*, 1-2-3 performs a relational join on the tables. Therefore, make sure you specify a join criteria in the *criteria* argument. See Referring to multiple tables in criteria.

A criteria range is the name or address of a range that contains at least two rows. The first row lists some or all of the field names from a database table; the second and any subsequent rows contain the criteria. The criteria range cannot be a 3D range. Criteria are values, labels, formulas, @functions, or logical expressions.

Note @DPURECOUNT accepts only a criteria range; you cannot specify a criteria formula as the *criteria* argument.

Criteria range examples

A criteria range that specifies all employees who work in the Finance department might look like this:

```
DEPT
Finance
```

A criteria range that specifies all employees who work in the Finance department and earn more than \$30,000 per year might look like this:

```
DEPT      SALARY
Finance   >30000
```

{button ,AL('H_ARGUMENT_TYPES_OVER;H_ENTERING_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;H_ENTERING_MULTIPLE_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;H_FUNC_BASICS';,0)} See related topics

Statistical @function arguments

Many statistical @functions perform calculations on lists of values, which are represented by the argument named *list*.

list can contain any of the following, in any combination: numbers, numeric formulas, and addresses or names of ranges that contain numbers or numeric formulas. You separate elements of *list* with argument separators.

Labels in *list*

Labels within ranges in *list* do not cause statistical @functions to evaluate to ERR. With the exception of @COUNT and the statistical @functions that begin with @PURE, 1-2-3 assigns the value 0 to all labels in *list* (either in a range or listed individually) and includes them in calculations.

For example, if you use @AVG to calculate the average of the values in a range and the range contains a label, 1-2-3 considers the label to have the value 0 when it calculates the average.

If you do not use the @PURE statistical @functions, always check for labels in the ranges you use in statistical @functions to guard against unexpected results.

Blank cells in *list*

1-2-3 ignores blank cells in multiple-cell ranges in *list*, but does not ignore references to blank cells listed individually. For example, if you use @AVG to average the values in a range that spans four cells (A1..A4), and the range contains a blank cell, 1-2-3 divides the sum by three to find the correct average. If you list those four cells individually, however (A1;A2;A3;A4), 1-2-3 divides the sum by four.

{button ,AL('H_ARGUMENT_TYPES_OVER;H_FUNC_BASICS;',0)} See related topics

Getting Help on an @function

If Help on individual @functions is installed, you can get detailed information on what each @function does and how to fill in the arguments.

1. Click the @function selector.

@Function selector



2. Choose List All.
3. Select the @function you want from the "@Functions" list.
Tip To restrict the number of @functions in the list, select the category containing the @function.
4. Click Help.

{button ,AL('H_GETTING_HELP_ON_AN_ATFUNCTION_DETAILS',1)} [See details](#)

{button ,AL('H_FUNC_BASICS;H_INSTALLING_FUNCTION_HELP_STEPS;H_FUNCTIONS_ALPHA_REF',0)} [See related topics](#)

Details: Getting Help on an @function

Other ways to get Help

To get Help on an @function without using the dialog box, enter the @function name in a cell and then press F1 (HELP).

To get Help on an @function that is on the @function menu, highlight the @function in the menu and press F1 (HELP).

If you have already entered the @function in the sheet, double-click the cell that contains the @function. Then move the insertion point so it is in the name of the @function. Press F1 (HELP) to see the topic for that @function.

To find Help on the individual @functions from the Help Topics dialog box, click the Index tab and search for "@Functions, A-Z list." In the A-Z topic, click the button for the letter the @function begins with, and then click the name of the @function itself.

You can also use the Find tab in the Help Topics dialog box to perform a full-text search on 1-2-3 Help.

Determining whether the Help is installed

Help on individual @functions is installed by default. However, if you ran a customized installation (also called "manual install") and chose not to install @Function Help, you need to install it before you can get Help on individual @functions.

To determine whether @Function Help is installed, open the Help Topics dialog box, click the Index tab, and search for "@Functions, A-Z list." If that search term is in your Help index, then the Help on individual @functions is installed.

{button ,AL('H_GETTING_HELP_ON_AN_ATFUNCTION_STEPS',1)} [Go to procedure](#)

Installing Help on individual @functions

Help on the individual @functions is automatically installed during a default installation. However, if you installed 1-2-3 using manual install, and chose not to install @Function Help, you can install it at any time after installing 1-2-3.

Tip Print this topic so you can refer to these instructions while running Install. (Install requires that you exit from all open applications.)

1. Insert the 1-2-3 or SmartSuite Install CD-ROM or the first Install disk in the disk drive.
If you install 1-2-3 over a network, make sure the server where the 1-2-3 Install program is stored is connected to your computer. To connect to the server, choose Tools - Map Network Drive in the Windows Explorer.
 2. Choose Start - Run from the Windows taskbar.
 3. If you are installing from CD-ROM, type **x:\lotus\install.exe** (where **x** is the drive containing the CD-ROM), and click OK. For example, if your CD-ROM drive is the D drive, enter d:\lotus\install.exe.
If you are installing from disks, type **x:\install.exe** (where **x** is the drive containing the Install disk), and click OK. For example, if your floppy drive is the A drive, enter a:\install.exe.
If you are installing over a network, type **x:\path\install.exe** (where **x** is the drive mapped to the server with the 1-2-3 Install directory, and **path** is the path to the directory where the 1-2-3 Install program is stored), and click OK. For example, if your server is mapped to the Q drive and the path is \lotus\123, enter q:\lotus\123\install.exe.
 4. Follow the instructions on the screen until you reach the Install Options dialog box.
 5. In the Install Options dialog box, select "Customize features - Manual install," and then click Next.
 6. In the "Select 1-2-3 Features to Customize" dialog box, select 1-2-3, and click Customize.
 7. Click the Help and Samples tab, and deselect Main 1-2-3 Help, 1-2-3 LotusScript Help, and Sample files (but leave @Function Help selected).
 8. Deselect all other choices from all other tabs, and click OK.
 9. In the "Select 1-2-3 Features to Customize" dialog box, select Approach, and click Customize.
 10. Deselect all choices from the Approach and PowerKeys tabs, and click OK.
 11. Finish answering all other installation questions, and then click Yes to copy your files.
- If you need additional Help while installing the files, click the Help button in the Install dialog boxes.

{button ,AL('H_FUNC_BASICS;H_GETTING_HELP_ON_AN_ATFUNCTION_STEPS',0)} [See related topics](#)

Referring to multiple tables in criteria

When entering criteria in a database @function, you can compare fields from separate tables, as long as you create a join formula that follows these rules:

- Precede the field name by the table name and a . (period).
- Enter field names exactly as they appear in the database tables.
- The field names do not have to match, but the two fields must contain the same type of data.
- Entries in one field must match entries in the other field, and one field should not contain duplicate entries.

For example, here is a valid join formula:

```
+SALES.Item=PRICE.Item_Name
```

In this formula, there are two tables: one named SALES with a field called Item, and one named PRICE, with a field called Item_Name. Item and Item_Name are located in different tables but contain similar data. Each entry in PRICE.Item_Name is listed only once but may be listed many times in SALES.Item.

Note 1-2-3 cannot join two database tables that have no fields in common.

{button ,AL('H_FUNC_GUIDE_DBASE;H_ENTERING_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;H_ENTERING_MULTIPLE_CRITERIA_IN_DATABASE_FUNCTIONS_OVER;',0)} [See related topics](#)

When and how formulas recalculate

1-2-3 normally reevaluates formulas automatically each time you change data they refer to. Formulas recalculate in order of dependence: if a formula uses the results of other formulas, those formulas recalculate before the one that depends on them.

For example, if a formula in B7 depends on the result of a formula in C28, 1-2-3 recalculates the formula in C28 first, even though C28 is farther down the sheet. This is called recalculating in natural order.

Whenever 1-2-3 performs a recalculation pass, it recalculates only those formulas affected by changes in data. Because 1-2-3 skips over formulas not affected by data changes, it minimizes recalculation time, especially in large sheets that contain many unrelated formulas.

Order of calculation in a formula

Precedence numbers from 1 to 7 represent the order in which 1-2-3 performs operations in a formula. The lower the precedence number, the earlier 1-2-3 performs the operation. 1-2-3 performs operations with the same precedence number sequentially from left to right.

The order in which you perform arithmetic operations with the same precedence number may produce differences in rounding but otherwise does not matter. However, order is important when evaluating logical operations that contain #AND# and #OR#. A formula can produce different results depending on the order of these operators.

The table below shows the order of precedence for all operators you can use in formulas.

Number	Operation	Operator
1	Exponentiation	^
2	Identification of value as negative or positive	- +
3	Multiplication and division	* /
4	Addition and subtraction	+ -
5	Equal-to test	=
5	Not-equal-to test	<>
5	Less-than test	<
5	Greater-than test	>
5	Less-than-or-equal-to test	<=
5	Greater-than-or-equal-to test	>=
6	Logical-NOT test	#NOT#
7	Logical-AND test	#AND#
7	Logical-OR test	#OR#
7	Text string concatenation	&

Overriding order of precedence

You can override the order of precedence in a formula by enclosing operations in parentheses. 1-2-3 performs operations enclosed in parentheses first. Within each set of parentheses, the precedence numbers listed in the table above apply.

4th 1st 2nd 3rd 5th
| | | | |
A1 + ((A2 + A3) * A4) / A5 - A6

For example, to perform addition before multiplication, enclose the addition in parentheses. To see the difference, compare the results of two formulas:

- When calculating $3 + 4 * 5$, 1-2-3 first multiplies 4 by 5 and then adds 3, resulting in 23.
- When calculating $(3 + 4) * 5$, 1-2-3 first adds 3 plus 4 and then multiplies the result by 5, resulting in 35.

Setting recalculation defaults

You can change how 1-2-3 recalculates in three ways:

- Choose whether to use automatic recalculation or manual recalculation.

- Recalculate formulas by column or by row instead of in natural order.
- Change the number of recalculation passes that 1-2-3 makes through each workbook.

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_STEPS',0)} [See related topics](#)

Setting recalculation defaults

You can choose how often and in which order 1-2-3 recalculates formulas and how many recalculation passes it makes.

1. Choose File - User Setup - 1-2-3 Preferences.



2. Click the Recalculation tab in the dialog box.
3. Select a recalculation method.
4. Select an order of recalculation.
5. Specify a number from 1 to 50 in the "Number of iterations" box.
6. Click OK.

The settings remain in effect until you end the 1-2-3 session or open another workbook with different recalculation settings.

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_DETAILS',1)} [See details](#)

{button ,AL('H_WHEN_AND_HOW_FORMULAS_RECALCULATE_OVER',0)} [See related topics](#)

Details: Setting recalculation defaults

Options: 1-2-3 Preferences dialog box (Recalculation tab)

Recalculation

- Automatic -- Immediately recalculates formulas whenever you change the data they refer to. Automatic recalculation occurs in the background, so you can continue working during recalculation.
- Manual -- Recalculates formulas only when you want to. Manual recalculation occurs in the foreground, so you must wait for 1-2-3 to complete it before continuing your work.

Order of recalculation

- Natural -- Recalculates all formulas in order of dependence. If a formula uses the results of other formulas, 1-2-3 recalculates those formulas first.
Recalculating in natural order is sufficient for most calculations. To control recalculation order more explicitly, select "By column" or "By row."
- By column -- Recalculates all formulas starting in A:A1 of the first active workbook and moves column by column through each sheet in each active workbook.
- By row -- Recalculates all formulas starting in A:A1 of the first active workbook and moves row by row through each sheet in each active workbook.

Number of iterations

Sets the number of recalculation passes 1-2-3 makes. This option takes effect only when the order of recalculation is "By column" or "By row," or when the order is "Natural" and a circular reference exists; otherwise, 1-2-3 makes one pass.

Recalculating formula links to other files

Recalculation settings apply only to formulas that refer to data in active workbooks. These settings do not affect formulas that link to data in workbooks on disk. For more information, see Updating file links.

Which settings should you use?

Most of the time, it's fine to use the initial recalculation settings (automatic, natural order). Change the order of recalculation only when necessary -- otherwise, you may get unexpected results.

When to use manual recalculation

Recalculation is set to "Automatic" by default. You may prefer to use manual recalculation if:

- Your sheet contains a large number of formulas and data that take a long time to recalculate.
- You're making a number of changes to a sheet and don't want the formulas to recalculate until after you've made the changes.
- You're perfecting a formula and don't want it to affect other formulas that depend on it yet.

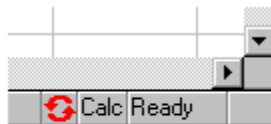
Ways to recalculate formulas manually

When using manual recalculation, you must tell 1-2-3 when you want to recalculate formulas. You can:

- Press F9 (CALC) when you see the Ready indicator in the status bar.
- Click the icon shown below.



- Click the Calc button, which appears in the status bar when data changes.



Circular reference
button

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_THE_STATUS_BAR_OVER',0)} [See related topics](#)

Overview: Creating a chart in 1-2-3

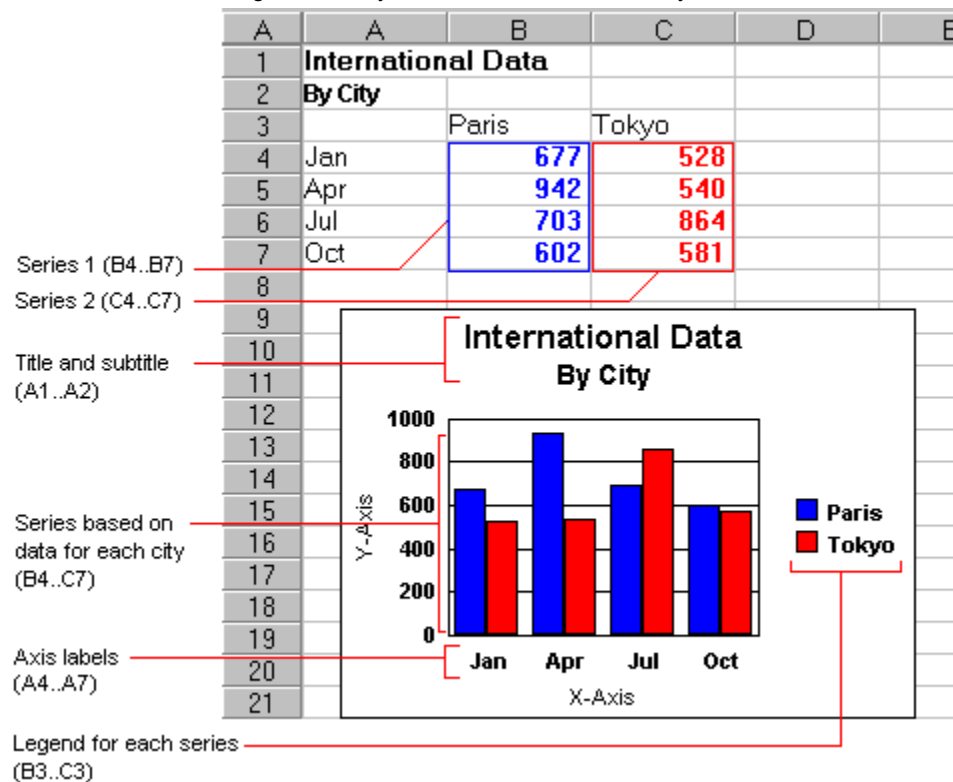
A chart is an effective way to illustrate the data in your spreadsheet. It can make relationships among numbers easy to see because it turns numbers into shapes (lines, bars, slices of a pie), and the shapes can then be compared to one another.

Setting up the range

You can set up a range so that it contains all the elements you need to create a basic chart.

If you select only numeric data and create a chart, 1-2-3 creates a chart with placeholders for the title, tick mark labels, and legend. If your selected range includes column and row headings, and text above or to the left of the numeric data, 1-2-3 uses the text to create the axis labels, title, subtitle, and legend.

Suppose the range you select has text and numbers arranged as in A1..C7 in the illustration below. 1-2-3 will plot the chart based on range A1..C7 by column. 1-2-3 automatically creates a bar chart as in the illustration.



How 1-2-3 plots the chart

When you create a chart, 1-2-3 plots each row or column of data in the selected range as a series -- a group of bars, lines, areas, or pie slices. A chart can contain up to 26 series. 1-2-3 follows rules to determine how to chart data.

First, 1-2-3 finds the first cell containing a value that isn't a date: B4 in this example. Then, starting from cell B4, 1-2-3 counts the number of columns that contain values (two) and the number of rows that contain values (four). Based on this count, 1-2-3 uses the following rules:

When there are	1-2-3 plots the chart
More columns than rows	By interpreting each row of values as a separate series. 1-2-3 uses the leftmost entry in each row as a legend label and the top entry in each column as an axis label.
More rows than columns	By interpreting each column of values as a separate series. 1-2-3 uses the top entry in each column as a legend label and the leftmost entry in each row as an axis label.
Equal rows and columns	Same as when there are more rows than columns

Styling and manipulating a chart

You can copy, move, style, and manipulate a chart the same as other graphic objects. You can switch to a different chart type, change the interior pattern and color, change the style of the chart border, add a designer frame, set how a chart is fastened to the cells behind it, and hide or lock the chart.

Select the chart, choose Chart - Chart Properties, and make the changes you want.

Tip Right-click in the chart to display the shortcut menu for working with charts.

{button ,AL('H_CREATING_A_CHART_IN_123_STEPS;',0)} [See related topics](#)

Creating a chart in 1-2-3

1-2-3 creates a chart based on the range you select.

1. Select the range or collection that contains the data to chart.

You can include text for the chart title and legend entries in your selection. For more information about setting up the range for the chart, see [Overview: Creating a chart in 1-2-3](#).

2. From the Create menu, choose Chart.



3. Click the sheet where you want the top left corner of the chart to appear.

Tip If the chart covers data in the sheet, you can move the chart and change its size; the data in the cells behind the chart will still be there.

{button ,AL('H_CREATING_A_CHART_IN_123_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_CHART_IN_123_OVER;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS',0)} [See related topics](#)

Details: Creating a chart in 1-2-3

Placing a chart on a sheet

Instead of clicking the sheet to have 1-2-3 place and size the chart, you can determine the size and position of the chart by dragging a box in the sheet after you choose Create - Chart.

Changing the chart type

1-2-3 creates the chart using the default chart type. Initially, the default chart type is a bar chart.

To change the default chart type, use Chart - Chart Style - Set Default Chart. To change the chart type for a particular chart, use Chart - Chart Type.

How 1-2-3 names charts

1-2-3 automatically names the new chart Chart 1. Subsequent charts are named Chart 2, Chart 3, and so on. Use Chart - Chart Properties (Basics tab) to rename the chart.

Changing the orientation of rows and columns

1-2-3 assigns data to the series in a chart according to how many rows or columns the range contains. You might want to see the data the opposite way.

For example, suppose 1-2-3 plots a chart showing data for several cities by month. However, you might want to see the chart plotted by city instead. Use Chart - Ranges - Options to reassign the data, so axis labels and legends are reversed.

Related SmartIcons



Changes chart properties



Changes the chart type

{button ,AL('H_CREATING_A_CHART_IN_123_STEPS',1)} [Go to procedure](#)

Chart Assistant dialog box

1-2-3 creates a chart based on the selected range.

Choose a task

Creating a chart in 1-2-3

Selecting a range from a dialog box

{button ,AL('H_CREATING_A_CHART_IN_123_OVER';,0)} See related topics

Overview: 1-2-3 Classic

1-2-3 Classic is the / (slash) command menu of 1-2-3 for DOS Release 3.1, still available in 1-2-3 Release 9. To work with new 1-2-3 Release 9 features, you must use the pull-down menus.

When you press / (slash) in Ready mode, the 1-2-3 Classic window appears at the top of the 1-2-3 window, displaying the 1-2-3 Release 3.1 main menu, as shown below.

Note To see the menu shown below in its entirety, use the scroll buttons or maximize the Help window.



1-2-3 Classic window

The 1-2-3 Classic window contains a title bar and the 1-2-3 for DOS Release 3.1 control panel. However, you enter and edit data in the edit line of 1-2-3 Release 9. For information, see [Overview: Entering data](#).

To move 1-2-3 Classic, you can drag the title bar with the mouse. To close 1-2-3 Classic, click the Close button.

Note The Wysiwyg menu is not available in the current release of 1-2-3. These commands perform tasks only in keystroke macros. However, 1-2-3 Help still provides command equivalents for the Wysiwyg (colon) commands.

Running 1-2-3 for DOS 3.1 macros

1-2-3 Release 9 can execute all Release 3.1 keystroke macros by using 1-2-3 Classic. 1-2-3 Release 9 ignores inoperable commands in a macro, but continues execution of the macro.

Pressing F1 (HELP) in 1-2-3 Classic

To see a list of equivalent 1-2-3 Release 9 commands for various / (slash) menu commands while you use 1-2-3 Classic, press F1 (HELP). For example, when you choose Range in 1-2-3 Classic and then press F1 (HELP), you see a list of equivalents for the /Range commands.

To see information on command equivalents without opening 1-2-3 Classic, select a command from the lists that follow.

Main menu commands

[/Worksheet](#)

[/Range](#)

[/Copy](#)

[/Move](#)

[/File](#)

[/Print](#)

[/Graph](#)

[/Data](#)

[/System](#)

[/Quit](#)

Wysiwyg menu commands

[:Worksheet](#)

[:Format](#)

[:Graph](#)

[:Print](#)

[:Display](#)

[:Special](#)

[:Text](#)

[:Named-Style](#)

[:Quit](#)

Add-in commands

Add-in commands

{button ,AL(`H_USING_123_CLASSIC_STEPS;`,0)} See related topics

Add-in commands

The table below lists Add-in commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Clear	File - Add-Ins - Manage Add-Ins
Invoke	No equivalent command
Load	File - Add-Ins - Manage Add-Ins
Quit	No equivalent command
Remove	File - Add-Ins - Manage Add-Ins
Settings	No equivalent command
Table	No equivalent command
Table Applications	No equivalent command
Table @Functions	No equivalent command
Table Macros	No equivalent command

:Display

The table below lists :Display commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Colors	Sheet - Sheet Properties (<u>Lines & Colors tab</u>) and (View tab)
Default	Sheet - Sheet Properties (View tab)
Font-Directory	No equivalent command
Mode	No equivalent command
Options	See <u>:Display Options</u> for additional commands
Quit	No equivalent command
Rows	No equivalent command
Zoom	View - Zoom to

:Display Options

The table below lists :Display Options commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Cell-Pointer	No equivalent command
Frame	View - Set View Preferences
Grid	View - Set View Preferences
Intensity	No equivalent command
Page-Breaks	View - Set View Preferences
Quit	No equivalent command

:Format

The table below lists :Format commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Bold	Range - Range Properties (Text Format tab)
Color	Range - Range Properties (Lines & Colors tab)
Font	Range - Range Properties (Text Format tab)
Italics	Range - Range Properties (Text Format tab)
Lines	Range - Range Properties (Lines & Colors tab)
Quit	No equivalent command
Reset	Edit - Clear
Shade	Range - Range Properties (Lines & Colors tab)
Underline	Range - Range Properties (Text Format tab)

:Graph

The table below lists :Graph commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Add	See :Graph Add for additional commands
Compute	No equivalent command
Edit	See :Graph Edit for additional commands
Goto	Edit - Go To
Move	No equivalent command
Quit	No equivalent command
Remove	Edit - Clear
Settings	View - Set View Preferences Object - Object Properties (Lines & Colors tab)
View	Edit - Go To
Zoom	No equivalent command

:Graph Add

The table below lists :Graph Add commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Blank	No equivalent command
Current	No equivalent command
Metafile	File - Open
Named	No equivalent command
PIC	File - Open

:Graph Edit

The table below lists :Graph Edit commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Add	See :Graph Edit Add for additional commands
Color	Object - Object Properties (Text Format tab) Object - Object Properties (Lines & Colors tab)
Edit	See :Graph Edit Edit for additional commands
Options	See :Graph Edit Options for additional commands
View	See :Graph Edit View for additional commands
Rearrange	See :Graph Edit Rearrange for additional commands
Select	No equivalent command
Transform	See :Graph Edit Transform for additional commands
Quit	No equivalent command

:Graph Edit Add

The table below lists :Graph Edit Add commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Arrow	Create - Drawing - Arrow
Ellipse	Create - Drawing - Ellipse
Freehand	Create - Drawing - Freehand
Line	Create - Drawing - Line
Polygon	Create - Drawing - Polygon
Rectangle	Create - Drawing - Rectangle
Text	Create - Text

:Graph Edit Edit

The table below lists :Graph Edit Edit commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Arrowheads	Drawing - Drawing Properties (<u>Lines & Colors tab</u>)
Centering	No equivalent command
Font	Drawing - Drawing Properties (<u>Text Format tab</u>)
Line-Style	Drawing - Drawing Properties (<u>Lines & Colors tab</u>)
Smoothing	No equivalent command
Text	No equivalent command
Width	Drawing - Drawing Properties (<u>Lines & Colors tab</u>)

:Graph Edit Options

The table below lists :Graph Edit Options commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Cursor	No equivalent command
Font-Magnification	Object - Object Properties (<u>Text Format tab</u>)
Grid	No equivalent command

:Graph Edit Rearrange

The table below lists :Graph Edit Rearrange commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Back	Object - Send to Back
Copy	Edit - Copy
Delete	Edit - Clear
Front	Object - Bring to Front
Lock	Object - Object Properties (Basics tab)
Move	No equivalent command
Restore	Edit - Undo
Unlock	Object - Object Properties (Basics tab)

:Graph Edit Transform

The table below lists :Graph Edit Transform commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Clear	No equivalent command
Horizontal	No equivalent command
Quarter-Turn	Drawing - Drawing Properties (Basics tab)
Rotate	Drawing - Drawing Properties (Basics tab)
Size	No equivalent command
Vertical	No equivalent command
X-Flip	Drawing - Flip Top-Bottom
Y-Flip	Drawing - Flip Left-Right

:Graph Edit View

The table below lists :Graph Edit View commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Down	No equivalent command
Full	No equivalent command
In	No equivalent command
Left	No equivalent command
-	No equivalent command
Pan	No equivalent command
+	No equivalent command
Right	No equivalent command
Up	No equivalent command

:Named-Style

The table below lists :Named-Style commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Define	Range - Range Properties (Named Styles tab)
1 - 8	Range - Range Properties (Named Styles tab)

:Print

The table below lists :Print commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Configuration	See :Print Configuration for additional commands
File	No equivalent command
Go	File - Print
Info	No equivalent command
Layout	File - Preview & Page Setup
Preview	File - Preview & Page Setup
Quit	No equivalent command
Range	File - Print
Settings	See :Print Settings for additional commands

:Print Configuration

The table below lists :Print Configuration commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Bin	File - Print, then Properties
1st-Cart	File - Print, then Properties
Interface	No equivalent command
Orientation	File - Preview & Page Setup (<u>Layout tab</u>)
Printer	File - Print
Quit	No equivalent command
Resolution	File - Print, then Properties
2nd-Cart	File - Print, then Properties

:Print Settings

The table below lists :Print Settings commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Begin	File - Print
End	File - Print
Frame	File - Preview & Page Setup (Include tab)
Grid	File - Preview & Page Setup (Include tab)
Quit	No equivalent command
Reset	No equivalent command
Start-Number	File - Print
Wait	No equivalent command

:Quit

This command has no equivalent in the current release of 1-2-3.

:Special

The table below lists :Special commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Copy	Edit - Copy, then Edit - Paste Special
Export	No equivalent command
Import	No equivalent command
Move	Edit - Cut, then Edit - Paste Special

:Text

The table below lists :Text commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Align	Range - Range Properties (<u>Alignment tab</u>)
Clear	No equivalent command
Edit	No equivalent command
Reformat	No equivalent command
Set	No equivalent command

:Worksheet

The table below lists :Worksheet commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Column	Range - Range Properties (Basics tab)
Page	Edit - Page Break
Row	Range - Range Properties (Basics tab)







/Copy

In the current release of 1-2-3, choose Edit - Copy, select a destination range, and choose Edit - Paste.

/Data

The table below lists /Data commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 gives you two ways to work with data queries:

- Use Create - Database to take advantage of database functionality available in Lotus Approach. For more information, see [Overview: Working with 1-2-3 and Approach](#).
- Use the Data Query Add-in to access additional data query functionality. For more information, see [Overview: Data Query Add-In \(DQA\)](#).

<u>1-2-3 Release 3.1</u>	<u>Current release</u>	<u>Data Query Add-in</u>
Distribution	Range - Analyze - Distribution	
External	See /Data External to see additional commands	See /Data External to see additional commands
Fill	Range - Fill	
Matrix	Range - Analyze - Invert Matrix Range - Analyze - Multiply Matrix	
Parse	Range - Parse	
Query	Create - Database - Query Table	Query - New Query
Regression	Range - Analyze - Regression	
Sort	Range - Sort	
Table	Range - Analyze - What-if Table	

/Data External

The table below lists /Data External commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 gives you two ways to work with data queries:

- Use Create - Database to take advantage of database functionality available in Lotus Approach. For more information, see [Overview: Working with 1-2-3 and Approach](#).
- Use the Data Query Add-in to access additional data query functionality. For more information, see [Overview: Data Query Add-In \(DQA\)](#).

1-2-3 Release 3.1	Current release	Data Query Add-in
Create	Create - Database - Query Table	Query - External Tables - Create Table
Delete	No equivalent command	No equivalent command
List Fields	No equivalent command	No equivalent command
List Tables	No equivalent command	No equivalent command
Other Command	No equivalent command	Query - External Tables - Send SQL
Other Refresh	Query Table - Refresh	Query - Refresh Now
Other Translation	No equivalent command	No equivalent command
Quit	No equivalent command	No equivalent command
Reset	No equivalent command	Query - External Tables - Disconnect
Use	Create - Database - Query Table	Query - External Tables - Connect to External

/Data Matrix

The table below lists /Data Matrix commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Invert	Range - Analyze - Invert Matrix
Multiply	Range - Analyze - Multiply Matrix

/Data Query

The table below lists /Data Query commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 gives you two ways to work with data queries:

- Use Create - Database to take advantage of database functionality available in Lotus Approach. For more information, see [Overview: Working with 1-2-3 and Approach](#).
- Use the Data Query Add-in to access additional data query functionality. For more information, see [Overview: Data Query Add-In \(DQA\)](#).

1-2-3 Release 3.1	Current release	Data Query Add-in
Criteria	Create - Database - Query Table	Query - Set Criteria
Del	No equivalent command; see Deleting records using a query table	Query - Delete Records
Extract	Create - Database - Query Table	Query - New Query
Find	No equivalent command; see Finding specific records in a query table	Query - Set Criteria
Input	Create - Database - Query Table	Query - New Query Query - Set Database Table
Modify	See /Data Query Modify for additional commands	See /Data Query Modify for additional commands
Output	Create - Database - Query Table	Query - New Query Query - Append Records
Quit	No equivalent command	No equivalent command
Reset	No equivalent command	No equivalent command
Unique	No equivalent command	Query - Set Options

/Data Query Modify

The table below lists /Data Query Modify commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 gives you two ways to work with data queries:

- Use Create - Database to take advantage of database functionality available in Lotus Approach. For more information, see [Overview: Working with 1-2-3 and Approach](#).
- Use the Data Query Add-in to access additional data query functionality. For more information, see [Overview: Data Query Add-In \(DQA\)](#).

<u>1-2-3 Release 3.1</u>	<u>Current release</u>	<u>Data Query Add-in</u>
Cancel	No equivalent command	No equivalent command
Extract	Create - Database - Query Table	Query - New Query
Insert	No equivalent command; see Adding records using a query table	Query - Append Records
Replace	No equivalent command; see Editing records using a query table	Query - Set Options

/Data Table

The table below lists /Data Table commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
1	Range - Analyze - What-if Table
2	Range - Analyze - What-if Table
3	Range - Analyze - What-if Table
Labeled	No equivalent command
Reset	Range - Analyze - What-if Table

/File

The table below lists /File commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Admin	See /File Admin for additional commands
Combine	File - Open
Dir	File - User Setup - 1-2-3 Preferences (File Locations tab)
Erase	No equivalent command
Import	See /File Import for additional commands
List	No equivalent command
New	File - New Workbook
Open	File - Open
Retrieve	File - Open
Save	File - Save/Update File - Save As/Save Copy As
Xtract	File - Save As/Save Copy As

/File Admin

The table below lists /File Admin commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Link-Refresh	Edit - Manage Links
Reservation	File - Get Reservation
	File - Release Reservation
	File - Workbook Properties (Security tab)
Seal	File - Workbook Properties (Security tab)
Table	No equivalent command

/File Import

The table below lists /File Import commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Numbers	File - Open
Text	File - Open

/Graph

The table below lists /Graph commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
A - F	Chart - Ranges
Group	Chart - Ranges
Name	See <u>/Graph Name</u> for additional commands
Options	See <u>/Graph Options</u> for additional commands
Quit	No equivalent command
Reset	Edit - Clear
Save	No equivalent command
Type	Chart - Chart Type Chart - Ranges
View	Edit - Go To
X	Chart - Ranges

/Graph Options Data-Labels

The table below lists /Graph Options Data-Labels commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
A - F	Chart - Chart Properties, select "Series labels" from the "Properties for" list, then click Ranges tab
Group	Chart - Chart Properties, select "Series labels" from the "Properties for" list, then click Ranges tab
Quit	No equivalent command

/Graph Name

The table below lists /Graph Name commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Create	Chart - Chart Properties (Basics tab)
Delete	Edit - Clear
Reset	Edit - Clear
Table	No equivalent command
Use	Edit - Go To

/Graph Options

The table below lists /Graph Options commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Advanced	See <u>/Graph Options Advanced</u> for additional commands
B&W	No equivalent command
Color	No equivalent command
Data-Labels	See <u>/Graph Options Data-Labels</u> for additional commands
Format	Chart - Chart Type
Grid	Chart - Axes & Grids
Legend	Chart - Legend
Quit	No equivalent command
Scale	Chart - Chart Properties, select an axis from the "Properties for" list, and then click Scale tab Chart - Chart Properties, select the axis labels, and then click Number format tab
Titles	See <u>/Graph Options Titles</u> for additional commands

/Graph Options Advanced

The table below lists /Graph Options Advanced commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Colors	Chart - Chart Properties, select "Series" from the "Properties for" list, and then click <u>Lines & Colors tab</u>
Hatches	Chart - Chart Properties, select "Series" from the "Properties for" list, and then click Lines & Colors tab
Quit	No equivalent command
Text	Chart - Chart Properties, select text object from the "Properties for" list, and then click <u>Text Format tab</u>

/Graph Options Titles

The table below lists /Graph Options Titles commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Titles	Chart - Title
	Chart - Note

/Graph Type Features

The table below lists /Graph Type Features commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Drop-Shadow	Chart - Chart Type
Frame	Chart - Chart Properties (<u>Lines & Colors tab</u>)
Horizontal	Chart - Chart Type
100%	Chart - Axes & Grids
Quit	No equivalent command
Stacked	Chart - Chart Type
2Y-Ranges	Chart - Ranges
3D	Chart - Chart Type
Table	Chart - Chart Type
Vertical	Chart - Chart Type
Y-Ranges	Chart - Ranges

/Move

In the current release of 1-2-3, choose Edit - Cut, select the destination range, and choose Edit - Paste.

/Print

The table below lists /Print commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Cancel	No equivalent command
Encoded	No equivalent command
File	File - Print
Printer	See <u>/Print [Encoded, File, Printer]</u> for additional commands
Quit	No equivalent command
Resume	No equivalent command
Suspend	No equivalent command

/Print [Encoded, File, Printer]

The table below lists /Print [Encoded, File, Printer] commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Align	No equivalent command
Clear	No equivalent command
Go	File - Print
Hold	No equivalent command
Image	No equivalent command
Line	No equivalent command
Options	See <u>/Print [Encoded, File, Printer] Options</u> for additional commands
Page	No equivalent command
Quit	No equivalent command
Range	File - Print
Sample	No equivalent command

/Print [Encoded, File, Printer] Options

The table below lists /Print [Encoded, File, Printer] Option commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Advanced	No equivalent command
Borders	File - Preview & Page Setup (<u>Headers & Footers tab</u>) and (Include tab)
Header	File - Preview & Page Setup (Headers & Footers tab)
Footer	File - Preview & Page Setup (Headers & Footers tab)
Margins	File - Preview & Page Setup (<u>Layout tab</u>)
Name	No equivalent command
Other	No equivalent command
Pg-Length	No equivalent command
Quit	No equivalent command
Setup	No equivalent command

/Quit

In the current release of 1-2-3, choose File - Exit 1-2-3, or File - Exit 1-2-3 & Return to <application>.

/Range

The table below lists /Range commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Erase	Edit - Clear
Format	Range - Range Properties (<u>Number Format tab</u>)
Input	No equivalent command
Justify	No equivalent command
Label	Range - Range Properties (<u>Alignment tab</u>)
Name	Range - Name
Prot	Range - Range Properties (<u>Security tab</u>) Sheet - Sheet Properties (<u>Basics tab</u>)
Search	Edit - Find & Replace
Trans	Range - Transpose
Unprot	Range - Range Properties (<u>Security tab</u>) Sheet - Sheet Properties (<u>Basics tab</u>)
Value	Edit - Copy Edit - Paste Special

/Range Name

The table below lists /Range Name commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Create	Range - Name
Delete	Range - Name
Labels	Range - Name
Note	No equivalent command
Reset	Range - Name
Table	No equivalent command
Undefine	No equivalent command

/System

This 1-2-3 Classic command has no equivalent in the current release of 1-2-3.

/Worksheet

The table below lists /Worksheet commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Column	See <u>/Worksheet Column</u> for additional commands
Delete	See <u>/Worksheet Delete</u> for additional commands
Erase	File - Close
Global	See <u>/Worksheet Global</u> for additional commands
Hide	See <u>/Worksheet Hide</u> for additional commands
Insert	Range - Insert Create - Sheet
Page	Edit - Page Break
Status	No equivalent command
Titles	View - Titles
Window	See <u>/Worksheet Window</u> for additional commands

/Worksheet Column

The table below lists /Worksheet Column commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Column-Range	Range - Properties (Basics tab)
Display	Range - Properties (Basics tab)
Hide	Range - Properties (Basics tab)
Reset-Width	Range - Properties (Basics tab)
Set-Width	Range - Properties (Basics tab)

/Worksheet Delete

The table below lists /Worksheet Delete commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Column	Range - Delete
File	File - Close
Row	Range - Delete
Sheet	Sheet - Delete Sheet

/Worksheet Global

The table below lists /Worksheet Global commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Col-Width	Sheet - Sheet Properties (Basics tab)
Default	See /Worksheet Global Default for additional commands
Format	Sheet - Sheet Properties (Number Format tab)
Group	Sheet - Group Sheets Sheet - Clear Sheet Group
Label	Sheet - Sheet Properties (Alignment tab)
Prot	Range - Range Properties (Security tab) Sheet - Sheet Properties (Basics tab)
Recalc	File - User Setup - 1-2-3 Preferences (Recalculation tab)
Zero	Sheet - Sheet Properties (Number Format tab)

/Worksheet Global Default

The table below lists /Worksheet Global Default commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Autoexec	File - User Setup - 1-2-3 Preferences (General tab)
Dir	File - User Setup - 1-2-3 Preferences (File Locations tab)
Ext	File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab)
Graph	No equivalent command
Other	See <u>/Worksheet Global Default Other</u> for additional commands
Printer	File - Print
Quit	No equivalent command
Status	No equivalent command
Temp	No equivalent command
Update	File - User Setup - 1-2-3 Preferences

/Worksheet Global Default Other

The table below lists /Worksheet Global Default Other commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Beep	File - User Setup - 1-2-3 Preferences (General tab)
Clock	No equivalent command
Help	No equivalent command
International	No equivalent command
Undo	File - User Setup - 1-2-3 Preferences (General tab)

/Worksheet Hide

The table below lists /Worksheet Hide commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Enable	Sheet - Hide
Disable	Sheet - Unhide

/Worksheet Window

The table below lists /Worksheet Window commands in 1-2-3 for DOS Release 3.1 and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 3.1	Current release
Clear	View - Clear Split
Display	No equivalent command
Graph	No equivalent command
Horizontal	View - Split
Map	No equivalent command
Perspective	No equivalent command
Synch	View - Split
Unsynch	View - Unsynchronize Split
Vertical	View - Split

Using 1-2-3 Classic

In the current release of 1-2-3, you can work with the 1-2-3 Release 3.1 main menu in 1-2-3 Classic, just as you did in Release 3.1.

1. To display 1-2-3 Classic, press / (slash) in Ready mode.

Note To change the key that displays the Classic menu, choose File - User Setup - 1-2-3 Preferences, and click the Classic Keys tab.

2. Choose the command that you want.

To close the 1-2-3 Classic window without completing a command, press CTRL+BREAK or press ESC until the Classic menu disappears.

{button ,AL('H_USING_123_CLASSIC_DETAILS',1)} [See details](#)

{button ,AL('H_123_CLASSIC_OVER;',0)} [See related topics](#)

Details: Using 1-2-3 Classic

1-2-3 Release 3.1 main menu commands

Some Release 3.1 main menu commands don't operate in the current release of 1-2-3. When you highlight a command that isn't operable, you see a message. To find out which command in the current release to use instead, press F1 (HELP).

Wysiwyg menu commands

You can't use any : (colon) commands to perform tasks in the current release of 1-2-3, except in keystroke macros. If you press : (colon) when 1-2-3 is in Ready mode, 1-2-3 enters a colon in the current cell.

Choosing commands and ranges

You must use the keyboard to choose commands in 1-2-3 Classic. You can use the keyboard or the mouse to select ranges required to complete a / (slash) command.

Turning off 1-2-3 Classic

If you don't want to use 1-2-3 Classic, you can turn it off by choosing File - User Setup - 1-2-3 Preferences, and then clicking the Classic Keys tab. When 1-2-3 Classic is turned off, pressing / (slash) or < (less-than symbol) enters the appropriate character in the current cell. However, you can continue to use your keystroke macros.

{button ,AL('H_USING_123_CLASSIC_STEPS',1)} [Go to procedure](#)

Overview: Distributing workbooks with TeamConsolidate

TeamConsolidate lets you distribute workbook sheets in a Lotus Notes database to request data or modifications from contributors. After they make changes, you can consolidate these sheets back into your original workbook.

For example, suppose you're using 1-2-3 to track expenses on a project involving several departments. You can create a workbook containing a sheet for each department. Using Lotus Notes, you distribute each sheet to people in each department. They make updates and additions and then you can consolidate the changes into the original workbook. Storing the workbook in a Notes database makes the information available to everyone--even people at different locations--and can help you track changes over time.

Note To use TeamConsolidate, you must have Lotus Notes 4.1 or higher, and should be familiar with the basics of working in Notes databases. If you don't have Notes 4.1, you can perform similar tasks with File - TeamReview. For more information, see [Overview: TeamReview in 1-2-3](#).

How to distribute sheets and consolidate changes into your original document

The process for distributing the sheets of a workbook to contributors involves a single distributor and any number of contributors. The general procedure is outlined below.

- A person familiar with designing and administering Notes databases sets up a Notes database that will contain the master workbooks and distributed sheets. This database must use the TeamConsolidate template, named TEAMCONS.NTF, which comes with 1-2-3.
- In 1-2-3, the originator chooses File - Team Consolidate - Share Sheets Using Lotus Notes.
- The originator opens the database in which to store the workbook.
- In Notes, the originator chooses Create - 1-2-3 Workbook Document, and either creates a new workbook or opens an existing one.
- Next, the originator assigns individual sheets of the workbook to one or more contributors and notifies contributors in an e-mail message.
- Next, contributors open the Notes database, and edit the 1-2-3 workbook document in place. When contributors finish adding data, they mark the document as ready for consolidation and save it back to the Notes database.
- After all contributors mark their documents "Ready for consolidation," the originator clicks the Consolidate Workbook Data button to consolidate contributors' changes into the master workbook.
- After the changes are consolidated, the originator can save the master workbook as a separate 1-2-3 file or leave the workbook stored in the Notes database.

{button ,AL('H_WORKING_IN_THE_TEAMCONSOLIDATE_VIEW_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_SHARE_SHEETS_USING_NOTES_STEPS;H_CREATING_THE_MASTER_WORKBOOK_AS_NEW_WORKBOOK_STEPS;H_DISTRIBUTING_SHEETS_STEPS;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS;','0)} [See related topics](#)

Overview: Creating the TeamConsolidate Notes database

To use TeamConsolidate, you must have Lotus Notes 4.1 or higher.

To create a TeamConsolidate database, you need to be familiar with the process of setting up and administering Notes databases. You must create the TeamConsolidate database using the TeamConsolidate template, named TEAMCONS.NTF, which comes with 1-2-3 and is installed in your Notes data directory.

Setting up users

After creating the TeamConsolidate database, set up the list of users who will have access to the database and assign them the appropriate privileges. For example, every user must have a minimum of Author access to the database.

Customizing the database

You can use all of the TeamConsolidate features without altering the forms and views of a TeamConsolidate database.

You can, however, customize the forms and views of the template to make it suit your needs. For example, you might want to change the user interface to make it easy to distribute workbook documents to the same set of users every month.

The forms of the TeamConsolidate database contain scripts created using the LotusScript language. To preserve the basic functionality of TeamConsolidate, you should exercise caution if you edit existing scripts. You can, however, add new scripts to the forms to perform various tasks according to your needs.

Where to find more information

To find more detailed information about setting up, maintaining, and customizing a TeamConsolidate database, open the TeamConsolidate template database and choose Help - About This Database and Help - Using This Database. For general information about designing and maintaining Notes databases, consult your Lotus Notes documentation.

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_WORKING_IN_THE_TEAMCONSOLIDATE_VIEW_OVER',0)} [See related topics](#)

Overview: Setting up the master workbook

When you use TeamConsolidate, you work with 1-2-3 as you normally would. Because contributors will be working with only one sheet at a time, certain features of 1-2-3 are less important or useful, for example, features that work across sheets.

Below is information to keep in mind when creating the master workbook and working in distributed sheets.

Setting up each sheet

When you are distributing sheets from a workbook with multiple sheets, put all the data and graphic objects that you want to distribute to one person on a single sheet. If a workbook contains macros, it is best to put these on a separate sheet.

Charts, drawings, maps, and OLE embedded objects

During consolidation, if separate distributed sheets contain charts, drawings, maps, or embedded objects with the same names, the objects with the duplicate names are not renamed. No objects or data will be lost, but to avoid confusion, before you distribute a sheet, assign names to objects rather than accepting the default names suggested by 1-2-3.

Versions and version groups

It is a good idea to avoid 3D versions in a distributed sheet. Although contributors can use data in multiple sheets, for example with formula calculations, 1-2-3 only consolidates the changes made on the single sheet that was distributed.

If the originator adds versions in the master workbook while sheets are distributed, the data in these versions will be lost during consolidation.

Version groups are not included in a distributed sheet.

Scripts

You can add, edit, and consolidate scripts that are attached to graphic objects on the current sheet, but no other scripts.

Note If a script is attached to a range in a distributed sheet, the script will not be consolidated.

Locked workbooks

You can distribute, edit, and consolidate locked workbooks. The lock is ignored when the sheet is consolidated back into the master workbook.

Password-protected workbooks

Since you cannot password-protect an OLE object, you cannot password-protect a master document after it is in Notes.

{button ,AL('H_WORKING_IN_THE_TEAMCONSOLIDATE_VIEW_OVER;H_SHARE_SHEETS_USING_NOTES_STEPS;H_CREATING_THE_MASTER_WORKBOOK_AS_NEW_WORKBOOK_STEPS;H_DISTRIBUTING_SHEETS_STEPS;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_SHARE_SHEETS_USING_NOTES_OVER;','0)} [See related topics](#)

Creating the master workbook from an existing workbook

Before you start, the Notes database for storing the workbook must be set up. If you are already in Notes, you can start with step 3.

1. Choose File - Team Consolidate - Share Sheets Using Lotus Notes.
2. Click Go To Lotus Notes.

Note The Go To Lotus Notes button is dimmed if Notes 4.1 or higher is not installed.

3. In Notes, open the Notes database where you want to place the 1-2-3 workbook.
4. Click the Create 1-2-3 Workbook Document button.
5. Enter a title for the master workbook document.
6. Select "Use an existing 1-2-3 workbook" and specify the file name.
7. Click OK.
8. Select whether to request data for the workbook now or later.
 - If you choose to distribute the workbook now, follow the steps in [Distributing sheets](#), starting with step 3.
 - If you choose to distribute the workbook later, when you are ready, click Request Workbook Data.

{button ,AL('H_WORKING_IN_THE_TEAMCONSOLIDATE_VIEW_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_CREATING_THE_MASTER_WORKBOOK_AS_NEW_WORKBOOK_STEPS;H_DISTRIBUTING_SHEETS_STEPS;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS;',0)} [See related topics](#)

Creating a new master workbook

Before you start, the Notes database for storing the workbook must be set up. If you are already in Notes, you can start with step 3.

1. Choose File - Team Consolidate - Share Sheets Using Lotus Notes.
2. Click Go To Lotus Notes.
3. Open the Notes database where you want to place the 1-2-3 workbook.
4. Click the Create 1-2-3 Workbook Document button.
5. Enter a title for the master workbook document.
6. Select "Create a new 1-2-3 workbook."
7. Click OK.
8. Set up and enter data in the 1-2-3 workbook object.
9. Click the Notes form outside the 1-2-3 workbook object when you finish creating the master workbook.
10. Close and save the Notes document.

You are now ready to distribute the sheets in the master workbook to contributors. See [Distributing sheets](#) for information.

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_SHARE_SHEETS_USING_NOTES_STEPS;H_DISTRI
BUTING_SHEETS_STEPS;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSOLIDATING_DISTRIBUTE
D_SHEETS_STEPS;','0)} [See related topics](#)

Distributing sheets

You distribute sheets to request data from contributors. Distributing sheets assigns them to contributors and makes each distributed sheet a response document under the master document.

1. Open the Notes document containing the workbook you want to distribute.
2. Click the Request Workbook Data button.
3. Select the sheets you want to distribute by dragging sheet names from the "Sheets in workbook" list to the "Sheets to distribute" list.
4. To choose contributors for each distributed sheet, click in the Contributors list and type a name or click the Addresses button to select names from an address book.
You can specify more than one contributor for each sheet. Separate names with a , (comma). You can also use group names to specify multiple contributors.
5. (Optional) Select "Only contributor(s) may view distributed sheets," to prevent others from seeing and entering data in the distributed sheets.
6. (Optional) To send e-mail to all contributors, select "Send mail with doclink to contributors," then enter your message in the box.
7. (Optional) Select "Notify me when contributors have finished" if you want to receive a message when documents are marked "Ready to consolidate" or "Do not consolidate."
8. Click OK, and enter your e-mail password (if prompted).

After you close the document, response documents containing the distributed sheets appear beneath the master document with a status of "Data requested."

{button ,AL('H_DISTRIBUTING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_WORKING_IN_THE_TEAMCONSOLIDATE_VIEW_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS;',0)} [See related topics](#)

Details: Distributing sheets

If you are distributing a workbook which contains a query table, datalink table, or Web table, only the data is distributed, not the tables.

When you can distribute sheets

You can distribute sheets from a master workbook document that has a status of "Data not yet requested" or "Consolidation completed." If a master workbook document has any other status, the Request Workbook Data button is not available.

After you distribute a sheet, you cannot distribute it again until the master workbook document has a status of "Consolidation completed." Consolidation is completed when all distributed sheets have a status of "Consolidated into Master" or "Do not consolidate."

{button ,AL('H_DISTRIBUTING_SHEETS_STEPS',1)} [Go to procedure](#)

Overview: Working in the TeamConsolidate database

In the TeamConsolidate database, distributed sheets appear as response documents to the master workbook document. You can choose from several ways to display them.

Displaying the TeamConsolidate Navigator

You can click the Navigator button to display a row of buttons on the left side of the workbook window that replace the standard Notes navigators. The TeamConsolidate navigator contains these buttons:

- All Documents -- Displays all documents in the view by originator name
- By Status -- Displays all documents by status of master workbooks
- By Date -- Displays all documents by modification date of master workbooks
- By Contributor -- Displays distributed sheets by contributor name, but does not display the master workbooks

Collapsing and expanding the Notes view

You can expand the Notes view to see the distributed sheets below the master workbook document. Click the triangle to expand or collapse the view.

```
{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;  
H_CREATING_THE_MASTER_WORKBOOK_AS_NEW_WORKBOOK_STEPS;H_SHARE_SHEETS_USING_N  
OTES_STEPS;H_DISTRIBUTING_SHEETS_STEPS;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_CONSO  
LIDATING_DISTRIBUTED_SHEETS_STEPS;',0)}
```

[See related topics](#)

Editing a distributed sheet

Contributors can edit distributed sheets in place or out of place. When you open a document containing a distributed sheet, the sheet is activated for in-place editing.

Editing the sheet in place

1. In the Notes database, open the document containing the distributed sheet.
2. Make your changes or additions to the sheet.
3. (Optional) Enter a comment in the Remarks field.
4. Close and save the Notes document.
5. In the Status of Contributor Document dialog box, make a choice reflecting the status of your work.
Note If you plan to add more changes later, select "In progress."
6. Click Done.

Editing the sheet out of place

1. In the Notes database, open the document containing the distributed sheet.
2. Click outside the 1-2-3 workbook object to deactivate it.
3. Click the object to select it.
4. Choose Workbook - Open.
The sheet appears in a full 1-2-3 window.
5. Make your changes or additions.
6. Choose File - Exit & Return to close 1-2-3 and go back to the Notes document.
7. (Optional) Enter a comment in the Remarks field.
8. Save and close the Notes document.
9. In the Status of Contributor Document dialog box, make a choice reflecting the status of your work.
Note If you plan to add more changes later, select "In progress."
10. Click Done.

{button ,AL('H_EDITING_A_DISTRIBUTED_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_DISTRIBUTING_SHEETS_STEPS;H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS','0)} [See related topics](#)

Details: Editing a distributed sheet

Adding comments

You can enter a comment in the response document to record any information you want about changes or additions you made to a distributed sheet. All comments from distributed sheets are listed in the Remarks field of the master workbook document after consolidation.

Limitations when editing a distributed sheet

When you are editing a distributed sheet, certain 1-2-3 commands and features are unavailable.

- You cannot use Edit - Go To to go to objects on other sheets.
- You cannot create or delete sheets.
- You cannot create version groups.
- You cannot insert or delete rows or columns in a versioned range (unless you created the version in the distributed sheet).
- You cannot add or change scripts attached to ranges.

Editing sheets in place

When you edit a sheet in place, the File and Window menus contain Lotus Notes commands. File - Save stores the entire Notes document containing the sheet, not just the sheet.

You can end in-place editing by clicking in the Notes document outside of the sheet. To return to editing the sheet, double-click it.

The 1-2-3 data is not saved until you save the Notes document.

Editing sheets out of place

When you edit the sheet out of place, the File menu contains 1-2-3 commands.

Setting the status of your work

When you save a distributed sheet, a dialog box requests you to confirm or change the status of the document. You can change the status to "In progress," "Ready to consolidate," or "Do not consolidate."

Duplicate range names

When you edit a distributed sheet, all range names proposed by Version Manager (for example, Range 1) will include the sheet name as a prefix (by default, a letter). If 1-2-3 detects a duplicate range name while consolidating distributed sheets back into the original workbook, 1-2-3 keeps the range name in the first sheet, but discards the names of any other ranges with the same name.

Embedding additional objects

You can embed objects in a distributed sheet and they will be merged back to the master workbook during consolidation.

{button ,AL('H_EDITING_A_DISTRIBUTED_SHEET_STEPS',1)} Go to procedure

Consolidating distributed sheets

After contributors make changes, you can consolidate distributed sheets back into the master workbook.

1. In the Notes database, open the document containing the master workbook.
2. Click the Consolidate Workbook Data button.
3. Specify whether Notes will consolidate just those documents marked "Ready to consolidate" and whether contributors' documents will be deleted after consolidation.
4. Click OK.
You see a message confirming that the distributed documents have been consolidated successfully.
5. (Optional) To save the 1-2-3 workbook document as a 1-2-3 workbook file, click the Detach 1-2-3 Workbook button.

{button ,AL('H_CONSOLIDATING_DISTRIBUTED_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;H_SETTING_UP_THE_MASTER_WORKBOOK_OVER;H_EDITING_A_DISTRIBUTED_SHEET_STEPS;H_DISTRIBUTING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Consolidating distributed sheets

Replication conflicts in distributed sheets

You can consolidate original response documents only. If two people edit the same document at the same time, the second person to save it will create a replication conflict. You must resolve replication conflicts and delete the conflict document before you can consolidate distributed sheets.

Controlling which sheets are consolidated

If you don't select "Consolidate only documents marked Ready to consolidate," all documents with a status of anything except "Do not consolidate" will be consolidated. If you select this option, only those documents with a status of "Ready to consolidate" will be consolidated. If sheets are marked "Do not consolidate," "In progress", or "Data requested," you can consolidate them later, after the contributor changes their status.

If sheets are marked "In progress" and "Consolidate only documents marked Ready to consolidate" is selected, then the master workbook document will get the status of "Partially consolidated." Once the remaining sheets are marked "Ready to consolidate" or "Do not consolidate," you can consolidate again to incorporate the remaining data. Then the status of the master workbook document changes to "Consolidation completed."

Deleting contributors' documents

If you select "Delete contributors' documents after consolidating," Notes deletes the response documents after consolidation. This, however, does not remove replication conflicts for response documents.

If you choose not to delete contributors' documents, they become read-only documents to prevent changes to sheets that have already been consolidated.

{button ,AL('H_CONSOLIDATING_DISTRIBUTED_SHEETS_STEPS',1)} [Go to procedure](#)

Merging versions and version groups

1-2-3 copies versions from named ranges in the source workbook to ranges of the same size and with the same names in the destination workbook.

1. Open the workbook containing the versions you want to merge (the source workbook) and the workbook into which you want to merge the versions (the destination workbook).
2. Make the destination the current workbook.
3. Choose File - Team Consolidate - Merge Versions.
4. In the "Merge versions and version groups from workbook" list, select the source workbook.
5. (Optional) To merge only versions and version groups created on or after a particular date, enter the date in the "On or after this date" box. Enter the date in DD-MMM-YY or DD-MMM format (for example, 15-Apr-96 or 15-Apr).
6. (Optional) To merge only versions or version groups created or last modified by a particular person, select the name in the "By the user" list.
7. Click OK.
1-2-3 merges versions and version groups from the source workbook into the destination workbook. If 1-2-3 cannot merge any versions or version groups that meet the criteria you specified, the Merge Results dialog box appears.
8. (Optional) In the Merge Results dialog box, use the range selector to specify a range and click Copy Results to Selected Range to copy the merge results to the range. Then click Done.

{button ,AL('H_MERGING_VERSIONS_AND_VERSION_GROUPS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_SHARING_VERSIONS_WITH_A_TEAM_OVER;',0)} [See related topics](#)

Details: Merging versions and version groups

Options: Merge Versions Results dialog box

- Items not merged -- Lists named ranges or versions that were not merged. If a named range appears in the list, no versions of that range were merged. Version names are given in the form "RANGE.version," where "RANGE" is the range name and "version" is the version name. For example, SALES.BestCase indicates the BestCase version of the range named SALES.
- Reason -- Lists the reasons why ranges could not be merged. The following table explains the reasons.

Reason	Description
No matching range name	The named range in the source file does not exist in the destination file.
Different size	The named range in the source file and the corresponding named range in the destination file contain a different number of rows, columns, or sheets.
Protected	The named range in the destination file is protected.
Hidden	The version or version group in the source file is hidden and the source file is locked.
Contains versions not merged	The version group in the source file contains one or more versions that could not be merged.
Already exists	A version or version group exists in the destination file with the same name, creation date, last modified date, and last user as the version or version group in the source file.

{button ,AL('H_MERGING_VERSIONS_AND_VERSION_GROUPS_STEPS',1)} [Go to procedure](#)

Share sheets using Lotus Notes dialog box

TeamConsolidate lets you distribute workbook sheets to team members, who can add their own data. Later, you can consolidate the updated sheets into your original workbook.

[Overview: Distributing workbooks with Team Consolidate](#)

[Creating the master workbook from an existing workbook](#)

[Creating a new master workbook](#)

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER';0)} [See related topics](#)

Create Document with 1-2-3 Workbook dialog box

Use this dialog box to create a master workbook.

Choose a task

[Creating the master workbook from an existing workbook](#)

[Creating a new master workbook](#)

{button ,AL('H_SHARE_SHEETS_USING_NOTES_OVER;',0)} [See related topics](#)

Converting a workbook to a Web page

You can convert a range, a sheet, or an entire workbook to a Web page using the Convert to Web Pages dialog boxes. You can format your Web page as an HTML table or jDoc format.

When you convert a range to the HTML table format, 1-2-3 saves formulas, real number values, number formats, and other text and table attributes to the HTML file. The result is a file that can be read back into 1-2-3 with all of the data and most of the formatting intact. For more information, see Working with HTML files.

When you convert a range, sheet, or entire workbook to jDoc (print snapshot) format, 1-2-3 uses the current print settings (margins, header and footer, style, and so on) to produce a compact, high fidelity output. The result is a file that looks identical to what your printed output would look like. (A file converted to jDoc format cannot be read back into 1-2-3.)

Choose a Task

[Converting a range to an HTML table](#)

[Converting a range, sheet, or workbook to jDoc format](#)

[Selecting layout options](#)

[Saving a file converted to a Web page](#)

Converting a range to an HTML table

You can convert a range in your sheet to an HTML file that can be read back into 1-2-3.

1. From the File menu, choose Internet, and then choose Convert to Web Pages.
2. In the "File name for Web page" box, type a file name for your Web page.
3. Under What to convert, select "Selected range."
4. Type a range in the "Selected range" box, or use the [range selector](#) to select a range.
5. Under Format, select "HTML table."
6. Click Next to select layout options.
7. Select the HTML layout options for your Web page. See [Selecting layout options](#) for information.
8. Click Next to preview and save your file.
9. To see how your page will look, click Preview in Browser.
10. Specify where you want to save the converted file. See [Saving a file converted to a Web page](#) for information.
11. Click Save.

{button ,AL('H_123_CONVERTING_A_RANGE_TO_AN_HTML_TABLE_DETAILS',1)} [See details](#)

{button ,AL('H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS;H_123_WORKING_WITH_HTML_FILES_OVER;H_123_BROWSING_INTERNET_FILES_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_STEPS;',0)}
[See related topics](#)

Details: Converting a range to an HTML table

Specifying a file name for the Web page

The default file name is the current 1-2-3 file name with an .HTM extension. If the current 1-2-3 file is untitled, the file name is untitled.HTM. Valid HTML extensions are: .HTM, .HTML, and .HTML-WK.

Note If you do not enter a valid extension, 1-2-3 appends ".HTM" to your file name. For example, if you enter "webpage1," 1-2-3 enters "webpage1.HTM."

{button ,AL('H_123_CONVERTING_A_RANGE_TO_AN_HTML_TABLE_STEPS',1)} [Go to procedure](#)

Selecting layout options

Select how you want your Web page to look when it is published to the Web, and then click Next to preview and save your file.

HTML layout options

Select the HTML layout options for your Web page.

- Header - Text you enter in the text box appears in the header for the Web page with a horizontal rule below it. The character limit is 80.
- Description - Text you enter in the text box appears at the top of the Web page, above the HTML table. The character limit is 1024.
- Show table borders - Displays borders for the HTML table.
- Add a link for downloading the 1-2-3 file - Adds a link to the Web page, centered below the table.
When you select this option and save your converted HTML file, 1-2-3 also saves a copy of the 1-2-3 file to the location you specify.
- Author name - Displays the author name to the footer at the bottom of the Web page: This file was created by <name> on <date>. The character limit is 80.
- E-mail address - Displays your e-mail address with a link to the footer at the bottom of the Web page: *Send comments to* <e-mail address>. The character limit is 80.

jDoc layout options

You can add a link for downloading the 1-2-3 file. Selecting this option adds a link to the Web page, centered below the table.

When you select this option and save your converted file, 1-2-3 also saves a copy of the 1-2-3 file to the location you specify.

1-2-3 uses the current print settings (except for printer name, what to print, number of copies, and output to file) to "print" to the Net-It print driver. For more information, see Overview: Print and page properties.

{button ,AL('H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS',0)} See related topics

Working with HTML files

In 1-2-3 Release 9, you can use File - Open to open HTML (.HTM*) files, and you can use File - Internet - Convert to Web Pages to save ranges to the HTML table format.

Opening HTML files

When opening an HTML file, you can either specify the file type and select the file you want, or type the file name with an .HTM or .HTML extension.

1-2-3 opens the file only if it finds data in `<table>` or `<pre>` data tags. 1-2-3 creates a new Untitled workbook. At the top of the page, 1-2-3 adds a hyperlink to the source file (for example, Source: <http://www.lotus.com>). Below the source information, 1-2-3 displays the table data.

If there are multiple tables of data on a Web page, 1-2-3 adds one blank row between each table.

Translating `<table>` tags

The table tag `<table>` contains the code for creating a table. Tables are specified row by row, and each row definition contains definitions for each of the cells in that row. The columns are calculated by how many cells are in each row.

1-2-3 translates the following information inside the `<table>` tag:

- Alphanumeric content
- Lotus-specific tags
- Text attributes
- Hyperlinks (`<a href>`)

Note Because 1-2-3 supports one hyperlink per cell, only the first hyperlink found in an HTML table cell is translated and all of the text in the 1-2-3 cell becomes the hyperlink.

- Images (``)

Note 1-2-3 translates the alt parameter into text. If the `` tag appears as part of a hyperlink, 1-2-3 creates a text hyperlink using the "alt" text from the ALT parameter. For example:

```
<br>
```

When 1-2-3 encounters an HTML tag it doesn't support, 1-2-3 adds the contents of the tag to the existing data in the cell.

Translating `<pre>` tags

The preformatted text tag `<pre>` lets you format text with extra white space (spaces, tabs, returns). Because browsers normally strip out extra white space, the `<pre>` tag is often used to line up information in table-like columns. (This preformatted text is usually displayed in a monospaced font such as Courier.)

1-2-3 scans the data in the file, collecting information about the location of blanks (spaces or tabs) on each line. 1-2-3 then divides the data into spreadsheet columns wherever columns of spaces exist.

1-2-3 displays the first line of a `<pre>` table as a long label. If the `<pre>` data is less than nine lines, the data is brought in as long labels.

Saving HTML files

You can save ranges to an HTML table by choosing File - Internet - Convert to Web Pages.

Before you create a Web page by converting a range to HTML, you probably want to know how the table will look (range attributes) and what happens to the data in your workbook.

When you convert a range to an HTML table, 1-2-3 maps as many range attributes as possible to existing HTML tags. For most range attributes that are not supported by HTML, 1-2-3 keeps track of the attributes with 1-2-3 specific tags so the formatting is not lost when you read the file back into 1-2-3.

Note The following range attributes are not supported when you convert a range to an HTML table: double underline, wide underline, text orientation, background patterns, background pattern colors, designer frames, Notes/FX fields, cell comments, and versioned ranges.

Formulas

Formulas are saved to the HTML file in the `<td formula=>` attribute. This attribute allows 1-2-3 to read the formula when you open the HTML file in 1-2-3.

When you select a range to convert to HTML, 1-2-3 saves only the formulas that reference cells inside the selected range. If a formula references cells outside the selected range, 1-2-3 saves the cell value and not the formula when the file is converted to HTML.

Compressing multiple blank columns and rows

When you convert a large range to the HTML table format, 1-2-3 compresses multiple consecutive rows and columns that have no data in them. If there are more than 16 consecutive blank columns, or more than 40 blank rows, 1-2-3 compresses the blank columns and rows down to 1 empty column and row. This empty column and row appears in the HTML table with a thick border between the other columns and rows.

Hidden columns and rows

If you have hidden columns and rows in your 1-2-3 file, 1-2-3 writes the data and range attributes to the HTML file but doesn't display the data. The HTML table cells in those columns and rows are left blank.

When a file with hidden columns and rows is displayed in a browser, the hidden columns and rows appear in the HTML table with a thicker than usual border between the other columns and rows. The more consecutive hidden columns and rows you have in your converted file, the thicker the border.

Note The information in hidden columns and rows is not secure. You can view the contents of hidden columns and rows in a browser by viewing the source code and searching for the "Lotus" tags.

{button ,AL('H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS;H_123_OPENING_AN_HTML_FILE_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Opening an HTML file

1. From the File menu, choose Open.
 2. In the Files of type box, select "HTML File (HTM*)." [See details](#)
 3. Specify the file you want to open.
 4. Click Open.
-

{button ,AL('H_123_OPENING_AN_HTML_FILE_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_HTML_FILES_OVER;H_123_WORKING_WITH_INTERNET_CONNECTION
S_OVER;H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS','0')} [See related topics](#)

Details: Opening an HTML file

When opening an HTML file, you can either specify the file type and select the file you want, or type the file name with a .HTM or .HTML extension.

1-2-3 opens the file only if it finds data in `<table>` or `<pre>` data tags. 1-2-3 creates a new Untitled workbook. At the top of the page, 1-2-3 adds a hyperlink to the source file (for example, Source: <http://www.lotus.com>). Below the source information, 1-2-3 displays the table data.

If there are multiple tables of data on a Web page, 1-2-3 adds 1 blank row between each table.

{button ,AL('H_123_OPENING_AN_HTML_FILE_STEPS',1)} [Go to procedure](#)

Saving a file converted to a Web page

You can preview and then save your range, sheet, or workbook as a Web page.

1. To preview your file in a browser, click Preview in Browser.

2. Specify the location where you want to save your file.

Note By default, 1-2-3 enters a directory name in the "Directory" box, based on the name of the current file. If you have previously saved this file, 1-2-3 displays the last local or network directory to which the file was saved.

3. Click Save.

A message appears indicating the location where your file was saved.

4. Click OK.

{button ,AL('H_123_SAVING_A_FILE_CONVERTED_TO_A_WEB_PAGE_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_HTML_FILES_OVER;H_123_BROWSING_INTERNET_FILES_STEPS;H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Details: Saving a file converted to a Web page**Previewing the converted file**

Click Preview in Browser to launch your default browser and display the Web page.

Specifying the location for the converted file

Specify the location where you want to save your file.

- Local or network drive - Saves your file to the local or network location you specified.
- Internet server - Saves your file to the Internet server you specified. See your system administrator for more information. To search for the Internet location where you want to save your converted Web page, click [Browse](#).

{button ,AL('H_123_SAVING_A_FILE_CONVERTED_TO_A_WEB_PAGE_STEPS',1)} [Go to procedure](#)

Browsing for Internet files

Use the Browse for Directory dialog box to select the Internet location where you want to save your converted Web page.

1. Click Browse.

2. Select the FTP server where the file resides.

Tip If you want to connect to a server which is not on the list, click Setup to display the FTP Hosts tab of the Internet Setup dialog box, where you can define additional servers.

3. To automatically connect to this server each time you open or save a file to the Internet, select "Auto-connect to this server next time."

4. Click Connect.

1-2-3 connects to the server you specified. You can stop the connection process by clicking the Stop button.

When the connection is successful, the Browse for Directory dialog box expands to display the server's directory tree.

5. Select the directory name from the list.

6. Click OK to return to the Convert to Web Pages dialog box.

7. Click Save to save your converted file to the Internet server.

{button ,AL('H_123_BROWSING_INTERNET_FILES_DETAILS',1)} [See details](#)

{button ,AL('H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Details: Browsing for Internet files

FTP servers

Displays names or descriptions for the FTP server you selected.

Auto-connect to this server next time

If you select this option, 1-2-3 automatically connects to this server whenever you open or save a file to the Internet. You can always specify another server to connect to, if you wish. A server which is defined to connect automatically has "(Default)" next to its name in the FTP servers box. You can only select one default server at a time.

Save in

Displays the current directory on the server. This option does not appear unless you have specified connection setup information.

Current path

Displays the selected path on the FTP server, including all lower level directories. Below it is a list of directories and files in the selected location. This option does not appear unless you have specified connection setup information.

{button ,AL('H_123_BROWSING_INTERNET_FILES_STEPS',1)} [Go to procedure](#)

Converting a range, sheet, or workbook to jDoc format

You can save a range, a sheet, or the entire workbook in jDoc format in order to maintain all of the formatting (including any formatting which is not supported by [HTML](#)) that appears in the sheet.

1. From the File menu, choose Internet, and then choose Convert to Web Pages.
2. In the "File name for Web page" box, type a file name for your Web page.
3. Select what you want to convert.
4. If you are converting a range, type a range in the "Selected range" box, or use the [range selector](#) to select a range.
5. Under Format, select "jDoc (print snapshot)."
6. Click Next.

Note If you have not installed the Net-It Now! SE print driver, a message appears prompting you to rerun the install program.

7. (Optional) Select "Add a link for downloading the 1-2-3 file."
8. Click Next to preview and save your file.
9. To see how your page will look, click Preview in Browser.
10. Specify where you want to save the converted file. See [Saving a file converted to a Web page](#) for information.
11. Click Save.

{button ,AL('H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_DETAILS',1)}
[See details](#)

{button ,AL('H_123_WORKING_WITH_HTML_FILES_OVER;H_123_CONVERTING_A_RANGE_TO_AN_HTML_TABLE_STEPS;H_123_CONVERTING_A_WORKBOOK_TO_A_WEB_PAGE_CS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Details: Converting a range, sheet, or workbook to jDoc format

When converting ranges to the jDoc format, 1-2-3 uses the current print settings (except for printer name, what to print, number of copies, and output to file) to "print" to the Net-It print driver. (For more information, see [Overview: Print and page properties](#).)

The result is a file that looks identical to what the printed output would look like. When you view this Web page in a browser, the jDoc viewer loads and displays the jDoc file.

Specifying a file name for the Web page

The default file name is the current 1-2-3 file name with an .HTM extension. If the current 1-2-3 file is untitled, the file name is untitled.htm. Valid HTML extensions are: .HTM, and .HTML.

Add a link for downloading the workbook file

If you select this option, 1-2-3 adds a link below the data to your Web page. 1-2-3 also saves a copy of the 1-2-3 file to the location you specify.

{button ,AL('H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_STEPS',1)} [Go to procedure](#)

Hyperlink dialog box

Use this dialog box to create, edit, or delete hyperlinks.

Choose a task

Creating a hyperlink

Editing a hyperlink

Removing a hyperlink

Creating a hyperlink

You can create hyperlinks on cells, buttons, and pictures. Hyperlinks can point to ranges or objects in the current workbook, to another file, or to a location on the Internet.

1. Select the cell, button, or picture you want to create a hyperlink for.
2. From the Create menu, choose Hyperlink.
3. In the "Action" box, select the type of hyperlink you want to create.
4. In the "Link to" box, specify the path.

You can click the icon to paste a location from the Clipboard into the "Link to" box.

5. Do one of the following:
 - If you're creating a hyperlink on a cell, type the text for the link; for example, "Link1." If the cell already contains data, the data appears in the "Cell contents" box.

Caution The text you type in this box overwrites the contents of the cell.

- If you're creating a hyperlink on a button, type the text that will appear on the button.

6. Click OK.

Now when you click the cell, button, or picture, 1-2-3 goes to the location you specified.

Note When you pause the mouse over a hyperlinked cell, picture, or button, 1-2-3 displays the path of the link in the title bar.

{button ,AL('H_123_CREATING_A_HYPERLINK_DETAILS',1)} [See details](#)

{button ,AL('H_123_EDITING_A_HYPERLINK_STEPS;H_123_REMOVING_A_HYPERLINK_STEPS;',0)} [See related topics](#)

Details: Creating a hyperlink

Locations you can link to

You can create a hyperlink to the following locations:

- None - Removes the link currently displayed in the "Link to" box.
- Go to an Internet location - Links to the Internet location specified in the "Link to" box.
- Go to another file - Links to the file specified in the "Link to" box.
- Go to a range or object in this workbook - Links to the range or object specified in the "Link to" box.

Tip To create a button link to the Web, click this icon in the Internet Tools SmartIcons set.



Type or use Browse to enter the URL address, file name (including the path if it is not in the default path), range name, or object you want to link to. You can select from a list of recently used URL addresses or file names.

Browsing for a location

When you click Browse, 1-2-3 opens a dialog box or launches a browser where you can specify the location you want to link to, depending on the option you select in the "Action" box.

- Go to an Internet location - Opens the URL you specified in the "Link to" box. If there is no URL in the "Link to" box, 1-2-3 opens lotus.com.
- Go to another file - Opens the Choose File dialog box where you can specify the file you want to link to.
- Go to a range or object in this workbook - Opens the Go To dialog box where you can specify the range or object you want to link to.

Note If you use the Go To dialog box, 1-2-3 enters in the "Link to box the type of object along with the name or address. For example, you will see SALES:Range if you selected a range named Sales.

Attaching a hyperlink to an object

- If the selected object is a cell, 1-2-3 displays the cell address (for example, A:G12) and the contents of the cell.
- If the selected object is a button, 1-2-3 displays the button name (for example, Button1). If you are adding a hyperlink to an existing button, 1-2-3 displays the existing name in the Hyperlink dialog box.
- If the selected object is a picture, 1-2-3 displays the picture name (for example, Picture 1).

Note 1-2-3 does not use the picture name as an HTML ALT tag attribute.

Appearance of hyperlinks in cells

Hyperlinks display in blue or magenta text, underlined. The hyperlink is blue if unvisited; magenta if visited.

Web Table 3			
Source:			
Link to	http://www.maxsonews.com		
source			
	Name	Price change \$	Price change%
	Pearl	40.88	11.88
	Earl	15.31	2.94
	Hemingway	19.44	1.81
	Toby	33.44	2.63
	Raymond	8.63	0.63

Copying hyperlinks

When you copy a cell containing a hyperlink, the cell contents, hyperlink information, and text attributes (blue or magenta, underlined text) get copied.

If you use Edit - Paste Special to paste the hyperlinked cell, the hyperlink information is pasted if you select "Contents" and the text attributes are pasted if you select "Styles and number formats." If you deselect "Styles and number formats" but select "Contents," the cell will still be hyperlinked, even though the text is not blue or magenta and underlined.

{button ,AL('H_123_CREATING_A_HYPERLINK_STEPS',1)} Go to procedure

Editing a hyperlink

When you pause the mouse over a hyperlinked cell, picture, or button, 1-2-3 displays the path of the link in the title bar.

1. Right-click on the cell, picture, or button that contains the hyperlink you want to edit.
2. Choose Edit Hyperlink.
3. Make any changes.
4. Click OK.

{button ,AL('H_123_EDITING_A_HYPERLINK_DETAILS',1)} [See details](#)

{button ,AL('H_123_REMOVING_A_HYPERLINK_STEPS;H_123_CREATING_A_HYPERLINK_STEPS;',0)} [See related topics](#)

Details: Editing a hyperlink

Locations you can link to

You can specify one of the following locations:

- None - Removes the link currently displayed in the "Link to" box.
- Go to an Internet location - Links to the Internet location specified in the "Link to" box.
- Go to another file - Links to the file specified in the "Link to" box.
- Go to a range or object in this workbook - Links to the range or object specified in the "Link to" box.

Type or use Browse to change the URL address, file name (including the path if it is not in the default path), range name, or object you want to link to. You can select from a list of recently used URL addresses or file names.

Browsing for a location

When you click Browse, 1-2-3 opens a dialog box or launches a browser where you can specify the location you want to link to, depending on the option you select in the "Action" box.

- Go to an Internet location - Opens the URL you specified in the "Link to" box. If there is no URL in the "Link to" box, 1-2-3 opens lotus.com.
- Go to another file - Opens the Choose File dialog box where you can specify the file you want to link to.
- Go to a range or object in this workbook - Opens the Go To dialog box where you can specify the range or object you want to link to.

Note If you use the Go To dialog box, 1-2-3 enters in the "Link to box the type of object along with the name or address. For example, you will see SALES:Range if you selected a range named Sales.

Attaching a hyperlink to an object

You can change the text in the "Cell contents" or "Button text" box.

- If the selected object is a cell, 1-2-3 displays the cell address (for example, A:G12) and the contents of the cell.
- If the selected object is a button, 1-2-3 displays the button name (for example, Button1). If you are adding a hyperlink to an existing button, 1-2-3 displays the existing name in the Hyperlink dialog box.
- If the selected object is a picture, 1-2-3 displays the picture name (for example, Picture 1).

Note 1-2-3 does not use the picture name as an HTML ALT tag attribute.

{button ,AL('H_123_EDITING_A_HYPERLINK_STEPS',1)} Go to procedure

Removing a hyperlink

When you pause the mouse over a hyperlinked cell, picture, or button, 1-2-3 displays the path of the link in the title bar.

1. Right-click the cell, button, or picture that contains the hyperlink you want to remove.
2. From the menu, choose Remove Hyperlink.

Tip You can also remove a hyperlink by selecting the cell, button, or picture, choosing Create - Hyperlink, and then clicking Remove Link.

1-2-3 removes the URL and, in cells, the text attributes for the hyperlink, but does not remove the cell contents, the button, or the picture the hyperlink was attached to.

{button ,AL('H_123_EDITING_A_HYPERLINK_STEPS;H_123_CREATING_A_HYPERLINK_STEPS;',0)} [See related topics](#)

Overview: Copying and moving

After you enter data, you can copy or move it to other places in the workbook.

You can copy or move:

- Sheets
- Ranges (including cells, columns, and rows)
- Charts, maps, and drawings (such as lines, arrows, rectangles, and ellipses)
- Text blocks and buttons
- Embedded objects

The difference between copying and moving data

Copying always leaves the original unchanged. Moving relocates your data to a destination you specify.

Contents of cell A2 remain after a copy				Nothing remains in cell A2 after a move			
A	A	B	C	A	A	B	C
1				1			
2	10,000			2			
3				3			
4				4			
5		10,000		5		10,000	
6				6			

Why it's necessary to select the data first

Since 1-2-3 places the data you selected on the Clipboard when you choose Edit - Cut or Edit - Copy, you must select the data to copy first.

About the Clipboard

The Clipboard is a temporary storage area provided by the operating system. You can use it to copy data within 1-2-3 or to copy data to other applications. The Clipboard always contains the data you most recently cut or copied.

About pasting

The destination range can be in the same workbook, in another workbook, or in another active application. When you paste the data, 1-2-3 takes a copy of the data from the Clipboard and puts it where you specify. You can paste the data to as many locations as you want. If you use Edit - Paste Special, 1-2-3 displays a dialog box showing different options. Use the options in the Paste Special dialog box to choose which properties of the copied object you want to include (or exclude) when you paste.

About drag and drop

Dragging is a quick way to copy data to one location or to move data. When you drag data between sheets in a workbook, 1-2-3 does not store the data on the Clipboard. If you drag data between workbooks, 1-2-3 does store the data on the Clipboard. If you want to drag data from one 1-2-3 workbook to another, tile the workbooks so they're both visible first.

What gets copied or moved

When you copy or move cells, 1-2-3 copies or moves styles as well as contents. You can choose Edit - Copy and Edit - Paste Special to paste cell comments to another cell. Scripts attached to ranges do not get copied but can get moved.

When you copy or move graphic objects, 1-2-3 also copies or moves styles and scripts associated with the objects. You can copy or move a group of graphic objects, but not a collection of ranges or sheets.

Ways to copy and move data

You can copy data by dragging a copy to another location, by using Edit - Copy and Edit - Paste, or by copying to fill adjacent cells. You can move data by dragging it to another location or by using Edit - Cut and Edit - Paste.

When you want to copy **Do this:** _____

Data to one location	Drag the data
Data to more than one location	Copy and paste using the Clipboard
Formulas or data across a column or row	Copy to adjacent cells using Edit - Copy Right or Edit - Copy Down
Data to another application	Copy and paste using the Clipboard

Copying and moving ranges that contain formulas

Copying or moving a range that contains formulas can affect the results of the calculations in your data. When you copy a formula, the formula's relative references change, but when you move a formula, the references stay the same. For more information, see [Overview: Copying and moving formulas](#).

```
{button ,AL('H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_COPYING_AND_MOVING_IN_A_SHEET_STEPS;H_COPYING_RIGHT_TO_FILL_A_RANGE_STEPS;H_COPYING_DOWN_TO_FILL_A_RANGE_STEPS;H_COPYING_FORMATS_STEPS;H_COPYING_CELL_COMMENTS_STEPS;H_MOVING_USING_THE_CLIPBOARD_STEPS;H_123_S98_MOVING_A_SHEET_STEPS;H_123_COPYING_A_SHEET_STEPS;H_123_COPYING_COLUMN_WIDTHS_AND_ROW_HEIGHTS_STEPS;H_123_COPYING_TO_FILL_A_3D_RANGE_STEPS',0)} See related topics
```

Copying and moving using drag and drop

You can use the mouse to copy and move data in 1-2-3.

1. Select what you want to copy or move.
2. Move the mouse pointer to the edge of the selection so that the pointer changes to a hand.



3. To move the selection, press the mouse button, and drag the selection.



4. To copy the selection, hold down CTRL, press the mouse button, and drag a copy of the selection.



While you drag, your selection is represented as an outline.

5. Release the mouse button when the outline of your selection is where you want it.

If you're copying, release the mouse button first and then release CTRL.

Tip To get to a part of the sheet that isn't visible, drag the selection to the edge of the sheet to scroll the sheet.

{button ,AL('H_COPYING_AND_MOVING_IN_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_CELL_COMMENTS_STEPS;H_COPYING_DOWN_TO_FILL_A_RANGE_STEPS;H_COPYING_FORMATS_STEPS;H_COPYING_AND_MOVING_OVER;H_COPYING_RIGHT_TO_FILL_A_RANGE_STEPS;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_MOVING_USING_THE_CLIPBOARD_STEPS;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Copying and moving using drag and drop

Copying or moving over existing data

If the destination already contains data, 1-2-3 asks if you want to replace the existing data with your selection or cancel the operation. If you accidentally delete data by dragging your selection on top of it, you can immediately choose Edit - Undo.

Copying or moving to another sheet

Drag the selection, without releasing the mouse button (and CTRL if copying), to the other sheet's tab, then to the location on the sheet.

Copying or moving to another active workbook

Tile the workbook windows so that both are visible, then drag the selection, without releasing the mouse button (and CTRL if copying), to the new workbook.

Dragging graphic objects

Drag a graphic object by any part except the handles; when copying or moving a shape with a transparent interior, drag it by the border, not the interior. If you select more than one graphic object, you can move them all by dragging one.

Canceling the copy or move

To cancel the drag operation, press ESC.

How moving ranges affects attached scripts

To move a script attached to a range, you must move the top left or bottom right corner of the scripted range. 1-2-3 moves a script attached to a cell or range only if you move it within a workbook using drag and drop or Edit - Cut and Edit - Paste.

To edit scripts and move them between workbooks, use the Integrated Development Environment (IDE). See [Overview: Using LotusScript](#) for more information.

Turning off drag and drop

You can turn off drag and drop by choosing File - User Setup - 1-2-3 Preferences (General tab), and deselecting "Drag and drop cells and sheets." You can also turn off the message that 1-2-3 displays when you drag over existing data by choosing File - User Setup - 1-2-3 Preferences (General tab), and deselecting "Confirm overwrite for drag and drop."

Related SmartIcons



Lets you turn off drag and drop and set other 1-2-3 preferences

{button ,AL('H_COPYING_AND_MOVING_IN_A_SHEET_STEPS',1)} [Go to procedure](#)

Copying a sheet

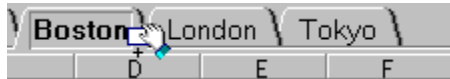
There are two ways to copy a sheet within a 1-2-3 workbook.

Using the mouse to copy a sheet (drag and drop)

Note You can copy only one sheet at a time, and you cannot copy sheets between workbooks.

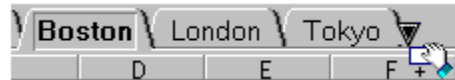
1. Move the mouse pointer to the edge of the tab of the sheet you want to copy.

The mouse pointer changes to a hand.

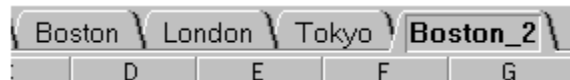


2. Hold down CTRL and drag the sheet tab to a new location.

The triangle indicates the location for the copied sheet.



3. Release the mouse button and CTRL.



1-2-3 makes a copy of the sheet and appends a number to the sheet name to indicate that it is a copy.

Tip To copy a sheet to a location that is not visible in the window, drag the sheet over the sheet scroll buttons.

Sheet scroll buttons



Using the menu to copy a sheet

1. From the Sheet menu, choose Move or Copy Sheet.
2. Select "Copy."
3. In the first sheet box, select the sheet you want to copy.
1-2-3 lists all sheets except hidden sheets. You cannot copy hidden sheets.
4. Select "Before" or "After."
5. In the second sheet box, select the location where you want to copy the sheet.
6. Click OK.

1-2-3 makes a copy of the sheet and appends a number to the sheet name to indicate that it is a copy.

{button ,AL('H_123_COPYING_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_OVER;H_123_S98_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Copying a sheet

What happens to formulas?

Formulas adjust just as they do when you copy them within a sheet. For more information on copying formulas, see [Overview: Copying and moving formulas](#).

What happens to scripts?

1-2-3 copies scripts attached to graphic objects, but does not copy scripts attached to ranges.

What happens to the sheet name?

- 1-2-3 adds a number to the sheet name to indicate that it is a copy. For example, a copy of sheet A becomes A_2. A second copy of sheet A becomes A_3, and so on. A copy of a sheet named Expenses becomes Expenses_2.
- If a sheet's name is longer than 15 characters after you copy it, 1-2-3 truncates the name. For example, a copy of the sheet named Goods_And_Labor would be Goods_And_Lab_2.

Tip To rename the sheet, double-click the tab, type a new name, and then press ENTER. To change the name back to the letter name, double-click the tab, delete the sheet name, and then press ENTER.

Turning drag and drop on and off

If drag and drop is turned off, the mouse pointer will not change to a hand when you try to drag and drop. To turn drag and drop back on, choose File - User Setup - 1-2-3 Preferences (General tab) and select "Drag and drop cells and sheets."

Copying a sheet containing named ranges

1-2-3 does not copy range names because you cannot have duplicate range names in a workbook. If you copy a sheet containing named macros, the names are not copied with the macros.

Copying a sheet containing versions

Copying a sheet with [versions](#) on it copies only the contents of the current version as a range.

Copying a sheet into a group of sheets

If you copy a sheet into a set of grouped sheets, the sheet you copy will lose its formatting and use the formats of the grouped sheets.

Copying a locked sheet

If you copy a locked sheet, the copy is also locked.

Notes

- To copy a sheet before or after itself, use the menu instead of drag and drop.
- You cannot copy a sheet if the workbook is locked.
- You cannot copy a sheet if the Preview window is open.

{button ,AL('H_123_COPYING_A_SHEET_STEPS',1)} [Go to procedure](#)

Copying using the Clipboard

The [Clipboard](#) is useful when you want to copy data to more than one location.

Note You cannot copy a sheet using the Clipboard. See [Copying a sheet](#).

1. [Select](#) what you want to copy.
2. From the Edit menu, choose Copy.



- 1-2-3 places a copy of your selection on the Clipboard.
3. Select the destination for the copied data.

Caution If you're copying a range, 1-2-3 writes over any existing data in the destination range, including data in hidden columns, rows, or sheets.

4. From the Edit menu, choose Paste.



{button ,AL('H_COPYING_USING_THE_CLIPBOARD_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_IN_A_SHEET_STEP
S;H_COPYING_AND_MOVING_OVER;H_COPYING_RIGHT_TO_FILL_A_RANGE_STEPS;H_MOVING_USING
_THE_CLIPBOARD_STEPS;',0)} [See related topics](#)

Details: Copying using the Clipboard

Shortcut for pasting data

You can select the destination and press ENTER to paste the data. Pressing ENTER works only once after each copy or cut.

Selecting the destination

If you copy a range, the destination must be a range. If you copy a graphic object, the destination can be a range or graphic object.

About the destination range

You need to select only one cell of the destination range. 1-2-3 treats that cell as the top left cell of the destination and pastes all the data in its original size and layout. 1-2-3 pastes all the data, regardless of the size of the destination range. If you copy a single cell and the destination range is larger than one cell, 1-2-3 repeats the data until the range is full.

Pasting text into a text block

To paste text into a text block, double-click the text block and use CTRL+V instead of Edit - Paste.

Copying named styles

When you copy a cell that uses a named style, 1-2-3 copies the named style so you can paste it into a different workbook. This is an easy way to share named styles between workbooks.

Related SmartIcons



Copies and fills a range to the right



Copies and fills a range down



Copies and fills a range down and right



Copies a range's styles to other ranges

{button ,AL('H_COPYING_USING_THE_CLIPBOARD_STEPS',1)} [Go to procedure](#)

Copying right to fill a range

You can quickly copy formulas or any data across a row.



[Show me a QuickDemo](#)

1. Select a range that includes the data and the cells where you want to copy the data.

	Q1	Q2	Q3	Q4
North	55	60	65	70
South	45	52	61	69
East	35	53	49	57
West	60	54	62	70
Average	49			

Formula

2. From the Edit menu, choose Copy Right.



Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and rows.

1-2-3 copies the data from the first column to the rest of the cells in the selected range. However, when you use Edit - Copy Right, 1-2-3 does not copy cell comments or scripts.

Related SmartIcons



Copies and fills a range down



Copies and fills a range down and right

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_IN_A_SHEET_STEP
S;H_COPYING_DOWN_TO_FILL_A_RANGE_STEPS;H_COPYING_AND_MOVING_OVER;H_COPYING_USIN
G_THE_CLIPBOARD_STEPS;H_123_COPYING_TO_FILL_A_3D_RANGE_STEPS',0)} [See related topics](#)

Copying down to fill a range

You can quickly copy formulas or any data down a column.



[Show me a QuickDemo](#)

1. Select a range that includes the data and the cells where you want to copy the data.

	Q1	Q2	Subtotals
North	55	60	115
South	45	52	
East	35	53	
West	60	54	

— Formula

2. From the Edit menu, choose Copy Down.



Caution 1-2-3 writes over any existing data in the range, including data in hidden columns and rows.

1-2-3 copies the data from the top row to the rest of the cells in the selected range. However, when you use Edit - Copy Down, 1-2-3 does not copy cell comments or scripts.

Related SmartIcons



Copies and fills a range to the right



Copies and fills a range down and right

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_IN_A_SHEET_STEP
S;H_COPYING_AND_MOVING_OVER;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_COPYING_RIGHT_
TO_FILL_A_RANGE_STEPS;H_123_COPYING_TO_FILL_A_3D_RANGE_STEPS',0)} [See related topics](#)

Copying styles

You can copy the styles of cells, including number formats, without copying the data in the cells.

1. Select the range.
2. From the Edit menu, choose Copy.



3. Select the range to which you want to apply the styles.
4. From the Edit menu, choose Paste Special.



5. Do one or more of the following:
 - To avoid pasting the cell data, deselect "Contents."
 - To paste all styles except range borders and designer frames, select "Styles and number formats."
 - To paste borders, select "Borders."
 - To paste designer frames, select "Charts, maps, drawings, and designer frames."
6. Click OK.

Note To copy a border or designer frame, you must include the entire border or frame in the range you selected.

{button ,AL('H_COPYING_FORMATS_DETAILS',1)} See details

{button ,AL('H_COPYING_CELL_COMMENTS_STEPS;H_COPYING_AND_MOVING_OVER;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_STEPS';,0)} See related topics

Details: Copying styles

Copying styles from one sheet to another by grouping

You can group sheets together to apply the styles of one sheet to other sheets, and to style the group of sheets at the same time.

Related SmartIcons



Copies a range's styles to other ranges



Pastes a range's styles, except borders

{button ,AL('H_COPYING_FORMATS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_COPYING_OVER;H_GROUPING_SHEETS_STEPS;H_USING_FAST_FORMAT_TO_STYLE_A_RANGESTEPS',0)} [See related topics](#)

Copying cell comments

You can copy cell comments without copying the data in the cells.

1. Select the range.
2. From the Edit menu, choose Copy.



3. Select the destination range.

Caution 1-2-3 replaces any cell comments in the destination range with the cell comments you copied.

4. From the Edit menu, choose Paste Special.



5. Select "Cell comments" and deselect the options you don't want to paste.
6. Click OK.

{button ,AL('H_COPYING_CELL_COMMENTS_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_CELL_COMMENT_STEPS',0)} [See related topics](#)

Details: Copying cell comments

You cannot use the 1-2-3 Classic (/C) command to copy cell comments.

You cannot use drag and fill or drag and clear to copy or delete cell comments.

{button ,AL('H_COPYING_CELL_COMMENTS_STEPS',1)} [Go to procedure](#)

Paste Special dialog box

Use this dialog box to choose which properties of the range you want to include (or exclude) when you paste.

Choose a task

[Copying a formula's result](#)

[Copying styles](#)

[Copying cell comments](#)

[Copying column widths and row heights](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_OVER;',0)} [See related topics](#)

Copying column widths and row heights

You can copy column widths and row heights to another range with or without copying the contents of the range.

1. Select the range.
2. From the Edit menu, choose Copy.



3. Select the range to which you want to apply the column widths and row heights.
4. From the Edit menu, choose Paste Special.



5. Select "Column widths and row heights."
6. Click OK.

Note 1-2-3 does not copy column widths or row heights if you have set different sheet defaults for the column width and row height on each sheet.

{button ,AL('H_COPYING_AND_MOVING_OVER;H_COPYING_FORMATS_STEPS',0)} [See related topics](#)

Copying to fill a 3D range

You can copy data between sheets in a 3D range.

1. On the first sheet, select the data you want to copy.
 2. Hold down SHIFT and click the tab of the last sheet you want to copy to.
1-2-3 selects a 3D range.
 3. In the last sheet, move the mouse pointer over the selected range and click the right mouse button.
 4. From the menu, choose Copy Back.
- 1-2-3 copies data from the selected range in the first sheet to the other sheets included in the 3D range.

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_OVER;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_COPYING_RIGHT_TO_FILL_A_RANGE_STEPS;H_COPYING_DOWN_TO_FILL_A_RANGE_STEPS',0)} See related topics

Overview: Copying and moving formulas

You can copy or move formulas to use them in different cells of the same sheet, in different sheets, or in different workbook files. You copy or move a formula the same way you copy other data. You can also copy just the result of a formula.

When you move a formula or the data it refers to, 1-2-3 makes any necessary changes so that the formula still refers to the same data. However, when you copy a formula, you can make the formula refer to the original or different data by using relative, absolute, or mixed references to cell addresses in the formula.

Using relative references to adjust cell addresses

When you copy a formula that contains cell addresses, 1-2-3 adjusts the addresses to their new location(s) in the sheet. Addresses that adjust when you copy them are called relative references. A relative reference can be an address, such as A:B25, or a range name.

For example, if the formula +A1+A2 is in cell A4 and you copy this formula to B4, the formula in B4 changes to +B1+B2. 1-2-3 adjusts the cell addresses in the formula relative to the formula's new location.



[See example](#)

Using absolute references to keep cell addresses unchanged

Sometimes you want a formula to refer to the same cells, no matter where and how many times you copy and paste it. To ensure that the formula always refers to the same cells, you change the references to those cells to absolute references. An absolute reference always refers to the same cell or range.

To make a relative reference absolute, you add a \$ (dollar sign) before the sheet letter or name, column letter, and row number. For example: \$A:\$B\$25. To make a range name absolute, enter a \$ (dollar sign) before the range name. For example: \$INTEREST.



[See example](#)

Using mixed references to keep part of a cell address unchanged

Sometimes when you copy or move a formula that refers to a cell or range, you want part of the address to stay the same and part of the address to adjust. For example, you may want the column letter to stay the same but the row number to change. To do this, you create a mixed reference by making part of the address absolute and leaving the other part relative.

For example, the formula \$A:B\$25 contains a mixed reference. The sheet letter (A) and row number (25) are absolute references and are preceded by a \$. The column letter (B) is a relative reference. If you copy the formula, the sheet letter and row number stay the same while the column letter adjusts relative to its new location.



[See example](#)

{button ,AL('H_COPYING_AND_MOVING_OVER;H_COPYING_A_FORMULA_STEPS;H_COPYING_A_FORMULA_S_RESULT_STEPS;H_MOVING_A_FORMULA_STEPS','0)} [See related topics](#)

Example: Using relative references

Suppose you create a formula that adds the values in column A, and you want to use the same formula to add the values in column B. To do this, copy the formula in column A and paste it into column B.

As shown below, 1-2-3 automatically adjusts the cell addresses in the formula to refer to cells in the formula's new location.

Original formula

A:A4			+A1+A2
A	A	B	C
1	\$1,875	\$7,564	
2	\$1,284	\$974	
3			
4	\$3,159		

When you copy the formula from A4 ...

Copied formula

A:B4			+B1+B2
A	A	B	C
1	\$1,875	\$7,564	
2	\$1,284	\$974	
3			
4	\$3,159	\$8,538	

... and paste it into B4, it adjusts to the new location

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_EXAMPLE_USING_ABSOLUTE_REFERENCES_EX;H_EXAMPLE_USING_MIXED_REFERENCES_EX',0)} [See related topics](#)

Example: Using absolute references

Suppose you're calculating the interest on a series of principal values, and you want to use the same interest rate each time. You can make the formula that calculates interest use an absolute reference to the cell containing the interest rate.

When you copy the formula and paste it into other cells, the formula multiplies all of the principal amounts by the same interest rate in A2. The copied formulas will still refer to the single cell that contains the interest rate because of the absolute reference.

A:B4			+A4*\$A\$2
A	A	B	
1	Always use this rate:		
2	7.25%		
3	Principal	Interest	
4	\$1,000	+A4*\$A\$2	
5	\$2,000	+A5*\$A\$2	
6	\$3,000	+A6*\$A\$2	
7	\$4,000	+A7*\$A\$2	
8	\$5,000	+A8*\$A\$2	

A2 contains the interest rate you always want to use

This range contains copies of a formula that makes an absolute reference to A2...

A:B4			+A4*\$A\$2
A	A	B	
1	Always use this rate:		
2	7.25%		
3	Principal	Interest	
4	\$1,000	\$72.50	
5	\$2,000	\$145.00	
6	\$3,000	\$217.50	
7	\$4,000	\$290.00	
8	\$5,000	\$362.50	

...so the formula multiplies all the principal amounts in column A by the same interest rate in A2

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_EXAMPLE_USING_MIXED_REFERENCES_EX;H_EXAMPLE_USING_RELATIVE_REFERENCES_EX',0)} [See related topics](#)

Example: Using mixed references

Suppose you want to calculate interest on a series of principal values, using three different interest rates. You can use the same formula to do all the calculations, as long as it contains mixed references.

In the example below, the formula in B4, $+\$A4*B\1 , uses an absolute reference to the column that contains the various principal values, but a relative reference to the row, so that 1-2-3 looks in the same column but moves down a row each time.

The formula refers to the interest rate by using an absolute reference to the row that contains the interest rates, but a relative column reference, so that 1-2-3 looks in the same row, but moves across a column each time.

The formula refers to the interest rates by relative column, absolute row

A:B4		+\$A4*B\$1		
A	A	B	C	D
1	Try these interest rates:	7.50%	8.00%	8.50%
2				
3	Principal			
4	\$1,000	\$75	\$80	\$85
5	\$2,000	\$150	\$160	\$170
6	\$3,000	\$225	\$240	\$255
7	\$4,000	\$300	\$320	\$340
8	\$5,000	\$375	\$400	\$425

The formula refers to the principals by absolute column, relative row

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_EXAMPLE_USING_ABSOLUTE_REFERENCES_EX;H_EXAMPLE_USING_RELATIVE_REFERENCES_EX',0)} [See related topics](#)

Copying a formula

You can copy a formula to use in one or more cells.

1. Select the cell or range that contains the formula(s) you want to copy.
2. (Optional) Edit the formula, if needed, to create relative, absolute, or mixed references to cell addresses.

Tip When you're editing a formula, you can press F4 to cycle through relative, absolute, and mixed reference variations.

3. Choose Edit - Copy.



4. Select the cell or range where you want to paste the formula(s).

5. Choose Edit - Paste.



6. (Optional) Paste the formula(s) into additional cells.

Tip You can also copy a formula using drag and drop.

{button ,AL('H_COPYING_A_FORMULA_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_A_FORMULAS_RESULT_STEPS;H_EDITING_A_FORMULA_STEPS;H_COPYING_AND_MOVING_IN_A_SHEET_STEPS','0')} [See related topics](#)

Details: Copying a formula

When you copy formulas, 1-2-3 adjusts any relative and mixed references in the copied formulas. 1-2-3 does not adjust absolute references.

Copying a formula to adjacent cells

Sometimes, you want to copy a formula to adjacent cells.

Suppose that cell A5 contains the formula @SUM(A1..A3) and you want to copy the formula to the adjacent three cells. You can quickly copy the formula in cell A5 to B5..D5 using Edit - Copy Right.

You can also use Edit - Copy Down to copy the contents of the topmost cell in a selected range down to the remaining cells in the range.

Related SmartIcons

Pastes the cell contents



Copies the leftmost column to a range



Copies the topmost row to a range

{button ,AL('H_COPYING_A_FORMULA_STEPS',1)} [Go to procedure](#)

{button ,AL('H_COPYING_DOWN_TO_FILL_A_RANGE_STEPS;H_COPYING_RIGHT_TO_FILL_A_RANGE_STEP S;',0)} [See related topics](#)

Copying a formula's result

You can copy a formula's result, rather than the formula itself, when you need only the value for further calculations or when you don't want anyone to see the calculations that produced that value.

1. Select the cell or range that contains the formula(s) whose result(s) you want to copy.
2. Choose Edit - Copy.



3. Select the cell or range where you want to paste the result(s) of the formula(s).
4. Choose Edit - Paste Special.



5. Select "Formulas as values."
6. Click OK.

Tip To convert a formula to its value, double-click the cell containing the formula and press F9 (CALC). After you convert a formula to its value, you cannot retrieve the formula.

Related SmartIcons



Pastes formulas as values

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_A_FORMULA_STEPS',0)} [See related topics](#)

Moving a formula

1. Select the cell or range that contains the formula(s) you want to move.
2. Choose Edit - Cut.



3. Select the cell or range where you want to paste the formula(s).
4. Choose Edit - Paste.



Tip You can also move a formula using drag and drop.

{button ,AL('H_MOVING_A_FORMULA_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_MOVING_USING_THE_CLIPBOARD_STEPS;H_COPYING_A_FORMULAS_RESULT_STEPS;H_EDITING_A_FORMULA_STEPS;H_COPYING_AND_MOVING_IN_A_SHEET_STEPS;',0)} [See related topics](#)

Details: Moving a formula

Keep in mind...

- If you move a formula, but not the data it refers to, the references in the formula don't change.
For example, if you move the formula +A1+B3 from cell C10 to D10, the formula remains +A1+B3.
- If you move the data that a formula refers to, 1-2-3 adjusts the formula.
For example, if cell C10 contains +A1+B3 and you move the contents of cell A1 to cell Q25, the formula in cell C10 changes to +Q25+B3.
Note If you move the data to another workbook, 1-2-3 does not adjust the formula.
- If you move a formula and any of the data it refers to, 1-2-3 adjusts all references to that data, including absolute references.
For example, if cell A3 contains the formula +\$A\$1+A2 and you move the range A1..A3 to B1..B3, the formula in cell B3 is +\$B\$1+B2.
- If you move a formula on top of data referred to by another formula, the other formula evaluates to ERR.
For example, if cell A10 contains the formula +A1 and you move B1 (which contains a formula) to A1, the formula in A10 results in ERR.

{button ,AL('H_MOVING_A_FORMULA_STEPS',1)} [Go to procedure](#)

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Overview: Copying and moving 1-2-3 data to other applications

There are several ways to copy or move data from 1-2-3 to another application. You can:

- Use Edit - Copy or Edit - Cut to copy or move 1-2-3 data to the Clipboard so you can use this data in another application.
- Use drag and drop to copy data between applications. Both applications must be open and tiled.

Note You cannot copy or move a sheet to another application, but you can copy or move the data on the sheet.

- Save 1-2-3 files to other application file formats. File - Save As lets you export data by saving it in the file formats for other applications such as Excel, dBASE, and Paradox. You can save an entire file or just a selected range of data. For more information on the file formats, see [Overview: Closing and saving files](#).

```
{button ,AL('H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_BRINGING_DATA_FROM_OTHER_
APPLICATIONS_INTO_123_STEPS;H_COPYING_DATA_INTO_123_WITH_DRAG_AND_DROP_STEPS;H_OP
ENING_A_TEXT_FILE_STEPS;H_CLOSING_AND_SAVING_FILES_OVER;H_COPYING_AND_MOVING_OVER
;H_COPYING_USING_THE_CLIPBOARD_STEPS;',0)} See related topics
```

Overview: Using data from other applications in 1-2-3

There are several ways to bring data from another Windows application into 1-2-3. You can:

- Cut or copy data to the Clipboard in another application and then use Edit - Paste to bring the data into 1-2-3.
- Use drag and drop to copy data between 1-2-3 and other applications. Both applications must be open and tiled.
- Use File - Open to bring data into 1-2-3. This single command brings in data from 1-2-3 workbook files as well as many other file types including Excel, dBASE, Paradox, text files, and HTML. In the File Open dialog box, choose Combine to insert data from another file into the current workbook.
- Use File - Open to import data from a text file. You enter the name of the text file, select "Text file" as the file type, and designate how to parse the data and what character set to use to interpret it.

{button ,AL('H_COPYING_AND_MOVING_OVER;H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_BRINGING_DATA_FROM_OTHER_APPLICATIONS_INTO_123_STEPS;H_COPYING_DATA_INTO_123_WITH_DRAG_AND_DROP_STEPS;H_COPYING_DATA_FROM_123_WITH_DRAG_AND_DROP_STEPS;H_OPENING_A_TEXT_FILE_STEPS;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_COMBINING_DATA_STEPS;;H_123_DDE_OVER;H_SHARING_DATA_USING_OLE2_OVER',0)) [See related topics](#)

Copying data from 1-2-3 with drag and drop

To copy data from 1-2-3 using drag and drop, the other application must also support drag and drop. Drag and drop does not use the Clipboard.

1. Tile the 1-2-3 window and the window of the destination application so that both are visible.
2. In 1-2-3, select the range or graphic object you want to copy.
3. Position the mouse pointer on the border of your selection so that the pointer changes to a hand.



4. While holding down the left mouse button, drag the selection to the destination application.
5. Release the mouse button.

{button ,AL('H_USING_DATA_FROM_OTHER_APPLICATIONS_IN_123_OVER;H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_COPYING_DATA_INTO_123_WITH_DRAG_AND_DROP_STEPS','0)} See
related topics

Copying and moving data from other applications into 1-2-3

1-2-3 uses a number of standard [Clipboard formats](#) to exchange data between applications via the Clipboard.

Note If you use Edit - Paste Special to copy or move data, you can select which Clipboard format you want to use.

1. In the source application, select what you want to copy or move.
2. Choose Edit - Copy or Edit - Cut to copy or move your selection to the Clipboard.
3. In 1-2-3, click the sheet where you want to place the top left corner of what you are copying or moving.
4. Choose Edit - Paste.



{button ,AL('H_BRINGING_DATA_FROM_OTHER_APPLICATIONS_INTO_123_DETAILS',1)} [See details](#)

{button ,AL('H_USING_DATA_FROM_OTHER_APPLICATIONS_IN_123_OVER;H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_COPYING_AND_MOVING_OVER;',0)} [See related topics](#)

Details: Copying and moving data from other applications into 1-2-3

Copying pictures into 1-2-3

If you copy a picture into 1-2-3 from another application, you can manipulate it the same way you manipulate other graphic objects.

For example, you can create or edit a picture with a graphics editor and copy it to the Clipboard. If you paste it into a 1-2-3 sheet, you can select, move, copy, size, or delete it. If you paste the picture on a graphic object, 1-2-3 places the top left corner of the picture over the top left corner of the graphic object.

{button ,AL('H_BRINGING_DATA_FROM_OTHER_APPLICATIONS_INTO_123_STEPS',1)} [Go to procedure](#)

Copying data into 1-2-3 with drag and drop

To copy data into 1-2-3 using drag and drop, the source application must support drag and drop.

1. Tile the 1-2-3 window and the window of the other application so that both are visible.
2. In the source application, select the data you want to copy.
3. While holding down the left mouse button, drag the selection to its destination in 1-2-3.
4. Release the mouse button.

Note If the source application doesn't support drag and drop, use Edit - Copy and Edit - Paste.

{button ,AL('H_COPYING_AND_MOVING_OVER;H_USING_DATA_FROM_OTHER_APPLICATIONS_IN_123_OVE
R;H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_BRINGING_DATA_FROM_OTHER_APPLIC
ATIONS_INTO_123_STEPS;',0)} See related topics

Creating custom @functions

You can use LotusScript to create your own @functions and use them just as you would use any of the built-in 1-2-3 @functions.

1. Choose Create - @Function.
2. Enter a name for the function in the "Name" box. Do not include the @ symbol in the name.
3. Click OK.
1-2-3 displays an empty function in the Script Editor.
4. Enter the statements that you want to execute when 1-2-3 invokes the function.
5. Close the Script Editor when you finish writing the function statements.

{button ,AL('H_CREATING_CUSTOM_FUNCTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_CUSTOM_FUNCTIONS_EX',1)} [See example](#)

{button ,AL('H_FUNC_BASICS;',0)} [See related topics](#)

Example: Creating custom @functions

This example creates an @function called @CELSIUS that converts a temperature measured in degrees Fahrenheit to its equivalent temperature measured in degrees Celsius.

Enter the following code to create the @CELSIUS function:

```
Function Celsius(temp As Integer) as Long
```

```
    Celsius = (temp-32) * 5/9
```

```
End Function
```

Now you can use the @function to convert temperatures. For example:

@CELSIUS(87) = 31

Details: Creating custom @functions

Other ways to create custom @functions

Choose Edit - Scripts & Macros - Show Script Editor to open the Script Editor and then choose Create - Function from the main menu in the Script Editor.

Naming custom @functions

Follow the LotusScript function naming conventions when naming custom @functions. Do not use the name of an existing @function, macro keyword, or LotusScript keyword. For more information on naming functions, choose Help - LotusScript from the main menu in the Script Editor, then search on "Names, construction rules" in the LotusScript Help Index.

Specifying arguments for custom @functions

LotusScript lets you specify up to 31 arguments for functions you define. However, if you plan to use a function as a custom @function, you can specify only 30 arguments.

Saving custom @functions

To save custom @functions and any other scripts, save the workbook file that contains them.

Using custom @functions

Use a custom @function in the same way you use the @functions that are built into 1-2-3: Simply type the @function and its arguments into a cell.

Caution Do not write custom @functions that alter 1-2-3 objects. If the script for a custom @function contains statements that alter objects, unexpected results may occur.

{button ,AL('H_CREATING_CUSTOM_FUNCTIONS_STEPS',1)} [Go to procedure](#)

Sorting data

You can sort data in a range in the order you specify.



[Show me a QuickDemo](#)

1. Select the range of data you want to sort.
2. From the Range menu, choose Sort.
3. From the "Available columns" list, select a column to sort by.
4. Click >> or drag the selected column into the "Sort by" list.
5. (Optional) If two or more records have the same entry for the column you selected, add another column to the "Sort by" list.

For example, if you are sorting by Last Name, you will probably also want to sort by ID Number.

6. Under Sort order, select an option.
7. (Optional) Select "Header at top" and enter a number or click the arrows to indicate how many rows make up the headers.
1-2-3 does not include the header row(s) in the sort.
8. Click OK.

{button ,AL('H_SORTING_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_SORTING_OPTIONS_STEPS;H_CHANGING_INTERNATIONAL_SETTINGS_STEPS;',0)}
[See related topics](#)

Details: Sorting data

Choosing a sort order

The Sort dialog box has sort order options.

- Ascending -- Sorts labels in A - Z order and values from smallest to largest.
- Descending -- Sorts labels in Z - A order and values from largest to smallest.

Easy ways to work in the Sort dialog box

- To remove a column from the "Sort by" list, drag it out of the box.
- To move a column from the "Sort by" list back to the "Available columns" list, select the column name and click <<.
- To change the position of a column in the "Sort by" list, drag it up or down the list.
- To change the sort order for a column in the "Sort by" list, select the column name and click "Ascending" or "Descending" under "Sort order." [A] following a column name means ascending order; [D] means descending order.

When to select headers in the sort range

It is often convenient to include header rows when you select the sort range, especially when selecting a large data table by range name. Specifying how many rows deep the headers are in the table ensures that you do not sort the column titles along with the data.

Using the sorting SmartIcons

If the range you want to sort is surrounded by empty cells, you can use the sorting SmartIcons to sort the range quickly. Simply click a cell in the column you want to sort on, then click a sorting SmartIcon -- 1-2-3 identifies the range, allows for header rows, and sorts the range.

- To sort the entire range, select a single cell in the column you want to sort on. If you have not sorted the range before, 1-2-3 assumes that there is one header row. If you have sorted the range before, 1-2-3 uses the number of header rows last specified in the Sort dialog box.
- To sort some of the rows in the range, select the cells in those rows in the column you want to sort on. When you select more than one cell, 1-2-3 does not use any header rows.



Sorts labels in A - Z order and values from smallest to largest



Sorts labels in Z - A order and values from largest to smallest

Tip To display the SmartSort icons, see [Adding an icon to a set of SmartIcons.](#)

{button ,AL('H_SORTING_DATA_STEPS',1)} [Go to procedure](#)

Parsing data

You can parse long labels from an imported text file into separate columns of values, dates, times, and labels.

1. Select the range containing the labels you want to parse.
2. From the Range menu, choose Parse.
3. Click Guess Format.

Based on the first label in the range, 1-2-3 guesses the correct format line and puts it in the "Format line" box.

4. (Optional) Edit the format line.
5. In the "Put the results in" box, specify the range or the first cell of the range where you want the parsed data to appear.

Caution 1-2-3 writes over any existing data, including hidden data, in the range you specify for the parsed data.

6. (Optional) To clear the format line and start again, click Clear Format.
7. Click OK.

{button ,AL('H_OPENING_A_TEXT_FILE_STEPS';,0)} See related topics

Transposing data

You can copy data in a range, transposing rows and columns within the same sheet or across sheets and replacing formulas with their current values.

1. If the CALC button appears in the status bar, press F9 (CALC) to update formulas in the range you want to transpose.

If this range contains formulas linked to data in other workbooks, use [Edit - Manage Links](#) to update these formulas.

2. [Select](#) the range you want to transpose.
3. From the Range menu, choose Transpose.



4. In the "Put the results in" box, specify the range or the first cell of the range where you want to copy the transposed data.

If you are transposing a 3D range, make sure you specify enough sheets in the range to accommodate the transposed data.

Caution 1-2-3 writes over any existing data, including hidden data, in the results range.

5. Click OK.
6. (Optional) If you are transposing a 3D range, the Transpose Options dialog box appears. Indicate how you want 1-2-3 to transpose the data, and click OK.

{button ,AL('H_TRANSPOSING_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_OVER','0')} [See related topics](#)

Details: Transposing data

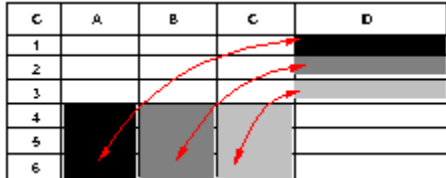
The results of transposing data

You can transpose rows and columns, columns and sheets, and rows and sheets. When you transpose data, 1-2-3 copies the formats, styles, and protection setting of the selected range.

Transposing rows and columns

When you transpose rows and columns, 1-2-3 copies the selected range and converts rows into columns or columns into rows. You can transpose rows and columns within the same sheet or across sheets. The illustration below shows how 1-2-3 transposes rows and columns within the same sheet.

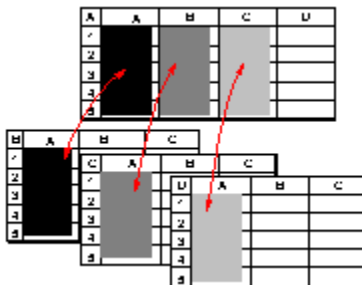
C	A	B	C	D
1				
2				
3				
4				
5				
6				



Transposing columns and sheets

When you transpose columns and sheets, 1-2-3 copies each column (or sheet) in the selected range to the corresponding sheet (or column) in the range where you put the results. Each transposed column remains a column in the range where you put the results. The illustration below shows how 1-2-3 transposes columns and sheets.

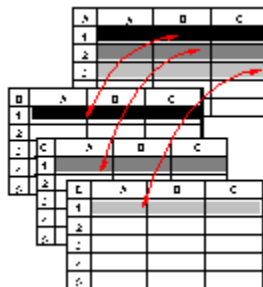
A	A	B	C	D
1				
2				
3				
4				



Transposing rows and sheets

When you transpose rows and sheets, 1-2-3 copies each row (or sheet) in the selected range to the corresponding sheet (or row) in the range where you put the results. Each transposed row remains a row in the range where you put the results. The illustration below shows how 1-2-3 transposes rows and sheets.

A	A	B	C
1			
2			
3			

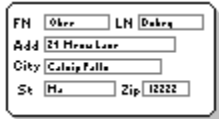


{button ,AL('H_TRANSPOSING_DATA_STEPS',1)} [Go to procedure](#)

Create Form dialog box

Use the Create Form dialog box to connect with Lotus Approach and create a form for working with records from a 1-2-3 database table.

You can use the form to view records in a 1-2-3 database table one at a time, to edit records, and to create new records.



FN Okor LN Dakota
Add 24 Main Lane
City Columbia Falls
St Me Zip 12222

Choose a topic

Creating a database form

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} See related topics

Creating a database form

1-2-3 works with Lotus Approach to create a form for adding, editing, and viewing records in a 1-2-3 database table. A form is an Approach view that lets you look at one record at a time. Forms are especially useful for data entry and editing records.

1. Move the cell pointer to a cell in the 1-2-3 database table you want to use.
2. From the Create menu, choose Database, and then choose Form.



3. Check that the database table range is correct. If not, enter a different range in the box, or use the range selector to specify a range. Be sure to include the field names (column headings).
4. Click OK.
5. (Optional) Use the mouse with the scroll bars or sheet tabs to navigate to a location where you want to put the form. The form is an object on top of the sheet so it will not write over your data.

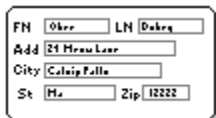
Note If you use the keyboard to navigate, you will end the process without creating a form.

6. Click in the sheet where you want to display the form.
7. When 1-2-3 opens the Approach Form Assistant, use it to specify the form layout and the fields you want in the form.

Tip For more information, click Help in the Form Assistant.

8. Click Done.

1-2-3 creates and activates the form in the sheet. When the form is active, the main menu and status bar contain Approach commands and icons, giving you access to Approach and the Approach Help system.



FN	Other	LN	Dakota
Add	21 Main Lane		
City	Coleman Falls		
St	Ida	Zip	12222

For more information about working with forms in 1-2-3, see Working with a database form.

{button ,AL('H_DB_CREATING_FORMS_DETAILS',1)} See details

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_QUERY_TABLE_STEPS',0)} See related topics

Details: Creating a database form

When you create a form, 1-2-3 loads a portion of Approach into memory.

Tips

- If you create a form on a sheet other than the one that contains your database table, someone can enter data in the form without seeing the database table.
- You can hide the sheet containing the database table to protect it from someone who only needs to use the form.

Getting Help about forms

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a form or when the form is active, Approach Help topics appear. Approach Help contains more information about working with forms.
- If you want to get Help about 1-2-3, click in the sheet outside the form, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_FORMS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_HIDING_SHEETS_STEPS;H_CREATING_A_SHEET_STEPS',0)} [See related topics](#)

Working with a database form

A form is an Approach view of a database table that lets you view one record at a time. You can work with a form when it is active or inactive, depending on the task you want to perform.

Working with an active form

To activate the form, do one of the following:

- Double-click the form.
- Click the form to select it, and then choose Form - Edit.

When the form is active, it has a dashed border, Approach commands and buttons appear on the main menu and status bar, and you have access to the Approach Help system. When the form is active, you can:

- Enter and edit data in the form, which automatically updates data in the 1-2-3 database table.
- Add new records to the 1-2-3 database table.

Caution 1-2-3 allows up to 512 characters in a field. Approach allows up to 256 characters in a field. If you edit data longer than 256 characters using a form, that data will be truncated in your 1-2-3 database table when you refresh data in the form.

- Use the Browse commands to find, sort, add, duplicate, hide, and delete records or to navigate through records one at a time.
- Size the form by dragging any of the handles on the frame.
- Choose Edit - Open Into Full Window to open the form in an Approach window. When the form is displayed in an Approach window, you can use all of the Approach features. For example, you can use Design mode to change the way the form looks.
- Choose Help - Help Topics to get additional information on working with active forms in Approach.

Working with an inactive form

To deactivate a form, click in the sheet outside the form.

To select an inactive form, click it.

When a form is inactive and selected, handles appear on its solid frame and 1-2-3 commands appear on the main menu and status bar. The Form command lets you work with forms. When the form is inactive and selected, you can:

- Use Form - Object Properties to change the properties of the form.
- Move the form by dragging it.
- Size the form by dragging any of the handles on the frame.
- Delete the form by pressing DEL.
- Right-click to use the shortcut menu for forms.
- Print the form alone or with other data in the workbook. To print the form, choose File - Print.

Getting Help about forms

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a form or when the form is active, Approach Help topics appear. Approach Help contains more information about working with forms.
- If you want to get Help about 1-2-3, click in the sheet outside the form, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_FORMS_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} [See related topics](#)

Dynamic Crosstab dialog box

Use the Dynamic Crosstab dialog box to connect with Lotus Approach and create a dynamic crosstab from data in a 1-2-3 database table.

In a a dynamic crosstab, you can group records by the fields you select. Use a crosstab to summarize and analyze data in a 1-2-3 database table.



Choose a topic

[Creating a dynamic crosstab](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_CREATING_A_DYNAMIC_CROSSTAB_EX',0)} [See related topics](#)

Creating a dynamic crosstab

1-2-3 works with Lotus Approach to create a dynamic crosstab from data in a 1-2-3 database table. Crosstabs let you see relationships between different types of data, look for trends, and compile data from a large database into a form you can chart.

1. Move the cell pointer to a cell in the 1-2-3 database table you want to use.
2. From the Create menu, choose Database, and then choose Dynamic Crosstab.



3. Check that the database table range is correct. If not, enter a different range in the box, or use the [range selector](#) to specify a range.
4. Click OK.
5. (Optional) Use the mouse with the scroll bars or sheet tabs to navigate to a location where you want to put the dynamic crosstab. The crosstab is an object on top of the sheet, so it will not write over your data.

Note If you use the keyboard to navigate, you will end the process without creating a crosstab.

- Click in the sheet where you want to display the dynamic crosstab.
- When 1-2-3 opens the Crosstab Assistant, use it to set up a crosstab.

Tip For more information, click Help in the Crosstab Assistant.

8. Click Done.

1-2-3 creates and activates the crosstab in the sheet. When the crosstab is active, the main menu and status bar contain Approach commands and icons, giving you access to Approach and the Approach Help system.

		9 lines	CC-PJBA
Control	0 00 01		
Value	0 00 01		
Initial	01		

For more information about working with crosstabs in 1-2-3, see [Working with a dynamic crosstab](#).

{button ,AL('H_DB_CREATING_A_DYNAMIC_CROSSTAB_DETAILS',1)} [See details](#)

{button ,AL('H_DB_CREATING_A_DYNAMIC_CROSSTAB_EX',1)} [See example](#)

```
{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_QUERY_TABLE_STEPS',0)} See related topics
```

Details: Creating a dynamic crosstab

Getting Help about crosstabs

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a crosstab or when the crosstab is active, Approach Help topics appear. Approach Help contains more information about working with crosstabs.
- If you want to get Help about 1-2-3, click in the sheet outside the crosstab, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_A_DYNAMIC_CROSSTAB_STEPS',1)} [Go to procedure](#)

Working with a dynamic crosstab

You can work with a dynamic crosstab when it is active or inactive, depending on the task you want to perform.

Working with an active crosstab

To activate a crosstab, do one of the following:

- Double-click the crosstab.
- Click the crosstab to select it, and then choose Crosstab - Edit.

When a crosstab is active, it has a dashed border, Approach commands appear on the main menu and status bar, and you have access to the Approach Help system. When the crosstab is active, you can:

- Choose Edit or Browse commands to work with the crosstab
- Choose Help - Help Topics to get additional information on working with active crosstabs in Approach.
- Size the crosstab by dragging any of the handles on the frame.
- Rearrange the fields by dragging the column or row headers from one place to another.
- Group data by dragging a field name in the column or row header area.
- Summarize data in a field by dragging the field into the data area.

You can also choose Edit - Open Into Full Window to open the crosstab in an Approach window. When the crosstab is displayed in an Approach window, you can use all of the Approach features. For example, you can use Design mode to change the way the crosstab looks.

Working with an inactive crosstab

To deactivate a crosstab, click in the sheet outside the crosstab.

To select the inactive crosstab, click it.

When a crosstab is inactive and selected, handles appear on its solid frame and 1-2-3 commands appear on the main menu and status bar. The Crosstab command lets you work with crosstabs. When the crosstab is inactive and selected, you can:

- Use the Crosstab menu to change the properties of the crosstab or refresh the data.
- Refresh the data in the crosstab to reflect any changes to the source database table.
- Move the crosstab by dragging it.
- Size the crosstab by dragging any of the handles on the frame.
- Delete the crosstab by pressing DEL.
- Right-click to use the shortcut menu for crosstabs.
- Print it alone or with other data in the workbook. To print a crosstab, choose File - Print.

Copying crosstab data to cells in a sheet

If you want to use the data in a crosstab in formulas, charts, or maps, you need to copy the crosstab data to cells in a sheet.

To copy the data from a crosstab, activate the crosstab, click the gray cell in the upper-left corner of the crosstab to select all the data and headings, then choose Edit - Copy.

To paste the data in a sheet, click the cell where you want the upper-left corner of the data to appear, then choose Edit - Paste.

Getting Help about crosstabs

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a crosstab or when the crosstab is active, Approach Help topics appear. Approach Help contains more information about working with crosstabs.
- If you want to get Help about 1-2-3, click in the sheet outside the crosstabs, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_A_DYNAMIC_CROSSTAB_EX',1)} [See example](#)

{button ,AL('H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_A_DYNAMIC_CROSSTAB_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_123_REFRESHING_A_DYNAMIC_CROSSTAB_STEPS',0)} [See related topics](#)

Example: Creating a dynamic crosstab

A crosstab is a good tool for categorizing and summarizing database records when the data includes at least three variables.

For example, the sheet below contains fields for the names of (1) each sales representative, (2) each product, and (3) the number of cases sold. The names and products are listed more than once so you can use a crosstab to total the data for either one.

A	A	B	C
1	Sales Rep	Product	# Cases
2	Lindsay	90 Cabernet	450
3	Lindsay	90 Pinot Noir	300
4	Lindsay	90 Merlot	380
5	Lindsay	90 Cabernet	240
6	Lindsay	90 Merlot	550
7	Lindsay	90 Merlot	700
8	Renault	90 Merlot	200
9	Renault	90 Cabernet	400
10	Renault	90 Cabernet	650
11	Renault	90 Pinot Noir	270
12	Renault	90 Merlot	150
13	Renault	90 Pinot Noir	290

The following crosstab shows the total cases sold by product for each sales representative.

	Lindsay	Renault	Total
	# Cases	# Cases	# Cases
90 Cabernet	690	1050	1740
90 Merlot	1630	350	1980
90 Pinot Noir	300	560	860
Total	2620	1960	4580

{button ,AL('H_DB_CREATING_A_DYNAMIC_CROSSTAB_STEPS;H_DB_WORKING_WITH_A_DYNAMIC_CROSSTAB_STEPS',0)} [See related topics](#)

Refreshing a dynamic crosstab

You can refresh the data in the crosstab whenever data in the source database table changes.

1. Click the crosstab to select it.
2. From the Crosstab menu, choose Refresh.

1-2-3 recalculates the data in the crosstab to reflect the current data in the source database table.

```
{button ,AL('H_DB_WORKING_WITH_A_DYNAMIC_CROSSTAB_STEPS;H_DB_CREATING_A_DYNAMIC_CROS  
STAB_STEPS;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_123  
_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)}
```

[See related topics](#)

Create Report dialog box

Use the Create Report dialog box to connect with Lotus Approach and create a report using data from a 1-2-3 database table.

You can use a report to organize, analyze, and present data from many records in a 1-2-3 database table in different formats.



Choose a topic

Creating a database report

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_CREATING_A_REPORT_EX',0)} See related topics

Creating a database report

1-2-3 works with Lotus Approach to create a report about records in a [1-2-3 database table](#). Use a report to organize, analyze, and present the data in the database table.

1. Move the cell pointer to a cell in the 1-2-3 database table you want to use.
2. From the Create menu, choose Database, and then choose Report.



3. Check that the database table range is correct. If not, enter a different range in the box, or use the [range selector](#) to specify a range.
4. Click OK.
5. (Optional) Use the mouse with the scroll bars or sheet tabs to navigate to a location where you want to put the report. The report is an object on top of the sheet, so it will not write over your data.

Note If you use the keyboard to navigate, you will end the process without creating a report.

6. Click in the sheet where you want to display the icon for the report.
7. When 1-2-3 opens the Approach Report Assistant, use it to set up the report.

Tip For more information, click Help in the Report Assistant.

8. Click Done.

1-2-3 creates and activates the report.

Note When the report is active, it appears in an Approach window, giving you access to the Approach commands and Approach Help system. To return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3. When the report is inactive, it appears as an icon in the sheet.

For more information about reports in 1-2-3, see [Working with a database report](#).

{button ,AL('H_DB_CREATING_A_REPORT_DETAILS',1)} [See details](#)

{button ,AL('H_DB_CREATING_A_REPORT_EX',1)} [See example](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER',0)} [See related topics](#)

Details: Creating a database report**Returning to 1-2-3**

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the report are automatically saved. 1-2-3 displays the report as an icon in the sheet.

Getting Help about reports

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a report or when the report is active, Approach Help topics appear. Approach Help contains more information about working with reports.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_A_REPORT_STEPS',1)} Go to procedure

Working with a database report

To work with a report, it must be active. Double-click the report icon in the sheet to activate the report and open Lotus Approach.

Working with a report in Approach

In the Design view in Approach, you can:

- Customize the report.
- Use File - Print Preview to see the report.
- Use File - Print to print the report.

Getting Help about reports

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a report or when the report is active, Approach Help topics appear. Approach Help contains more information about working with reports.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

Returning to 1-2-3

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the report are automatically saved. 1-2-3 displays the report as an icon in the sheet.

{button ,AL('H_DB_CREATING_A_REPORT_EX',1)} [See example](#)

{button ,AL('H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_A_REPORT_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} [See related topics](#)

Example: Creating a database report

You can create different kinds of reports to organize, analyze, and present data from many records in a 1-2-3 database table.

For example, the sheet below contains fields that include the names of sales representatives, products, and the number of cases sold.

B	A	B	C
1	Sales Rep	Product	# Cases
2	Lindsay	90 Zinfandel	2000
3	Lindsay	90 Zinfandel	1500
4	Garcia	90 Merlot	1400
5	Wu	90 Merlot	2500
6	Maclane	90 Merlot	3200
7	Lindsay	90 Merlot	1700
8	Renault	90 Merlot	1800
9	Garcia	90 Zinfandel	2200
10	Wu	90 Zinfandel	1600
11	Maclane	90 Zinfandel	2600
12	Renault	90 Merlot	3100
13	Renault	90 Merlot	2900

The following report shows individual sales by product.

Sales Report by Product	
Sales Rep	# Cases
90 Merlot	
Lindsay	1700
Renault	1800
Renault	3100
Renault	2900
Maclane	3200
Wu	2500
Garcia	1400
	<hr/> 16600
90 Zinfandel	
Lindsay	1500
Garcia	2200
Wu	1600
Maclane	2600
Lindsay	2000
	<hr/> 9900
	<hr/> 26500

The following summary report shows the total number of cases sold by product.

Sales Summary	
	Totals
90 Merlot	16600
90 Zinfandel	9900
	26500

{button ,AL('H_DB_CREATING_A_REPORT_STEPS;H_DB_WORKING_WITH_A_REPORT_STEPS;',0)} See related topics

Create Mailing Labels dialog box

Use the Create Mailing Labels dialog box to connect with Lotus Approach and create mailing labels from data in a 1-2-3 database table.

You can create mailing labels in several formats and print the mailing labels on standard or custom mailing label forms.



Choose a topic

[Creating mailing labels](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;',0)} [See related topics](#)

Creating mailing labels

1-2-3 works with Lotus Approach to create mailing labels using data in a 1-2-3 database table.

1. Move the cell pointer to a cell in the 1-2-3 database table you want to use.
2. From the Create menu, choose Database, and then choose Mailing Labels.



3. Check that the database table range is correct. If not, enter a different range in the box, or use the range selector to specify a range.
4. Click OK.
5. (Optional) Use the mouse with the scroll bars or sheet tabs to navigate to a location where you want to put the mailing labels. The mailing labels are an object on top of the sheet so they will not write over your data.

Note If you use the keyboard to navigate, you will end the process without creating mailing labels.

6. Click in the sheet where you want to display the icon for the mailing labels.
7. When 1-2-3 opens the Approach Mailing Label Assistant, use it to set up mailing labels.

Tip For more information, click Help in the Mailing Label Assistant.

8. Click Done.
1-2-3 creates and activates the mailing labels.

Note When the mailing labels are active, they appear in an Approach window, giving you access to the Approach commands and Approach Help system.

For more information about mailing labels in 1-2-3, see Working with mailing labels.

{button ,AL('H_DB_CREATING_MAILING_LABELS_DETAILS',1)} See details

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER',0)} See related topics

Details: Creating mailing labels

Returning to 1-2-3

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the mailing labels are automatically saved. 1-2-3 displays the mailing labels as an icon in the sheet.

Getting Help about mailing labels

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating mailing labels or when the mailing labels are active, Approach Help topics appear. Approach Help contains more information about working with mailing labels.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_MAILING_LABELS_STEPS',1)} Go to procedure

Working with mailing labels

To work with mailing labels, they must be active. Double-click the mailing label icon to activate the mailing labels and open Approach.

Working with mailing labels

In Approach, you can:

- Use the Browse view to enter, edit, review, and sort mailing labels.
- Use the Design view to customize mailing labels.
- Use File - Print to print mailing labels.

Getting Help about mailing labels

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating mailing labels or when the mailing labels are active, Approach Help topics appear. Approach Help contains more information about working with mailing labels.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

Returning to 1-2-3

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the mailing labels are automatically saved. 1-2-3 displays the mailing labels as an icon in the sheet.

{button ,AL('H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_MAILING_LABELS_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} [See related topics](#)

Create Form Letter dialog box

Use the Create Form Letter dialog box to connect with Lotus Approach and create a form letter using data in a 1-2-3 database table.

A form letter combines text you type with names and addresses from 1-2-3 database records. Use a form letter to send copies of the same letter to many different people.



Choose a topic

Creating a form letter

{button ,AL(`H_DB_WORKING_WITH_DATABASE_TABLES_OVER;',0)} See related topics

Creating a form letter

1-2-3 works with Lotus Approach to create a form letter that combines text in a letter with names and addresses from a [1-2-3 database table](#).

1. Move the cell pointer to a cell in the 1-2-3 database table you want to use.
2. From the Create menu, choose Database, and then choose Form Letter.



3. Check that the database table range is correct. If not, enter a different range in the box, or use the [range selector](#) to specify a range.
4. Click OK.
5. (Optional) Use the mouse with the scroll bars or sheet tabs to navigate to a location where you want to put the form letter. The form letter is an object on top of the sheet so it will not write over your data.

Note If you use the keyboard to navigate, you will end the process without creating a form letter.

6. Click in the sheet where you want to display the icon for the form letter.
7. When 1-2-3 opens the Approach Form Letter Assistant, use it to set up the form letter.

Tip For more information, click Help in the Form Letter Assistant.

8. Click Done.

1-2-3 creates and activates the form letter.

Note When the form letter is active, it appears in an Approach window, giving you access to the Approach commands and Approach Help system.

For more information about form letters in 1-2-3, see [Working with a form letter](#).

{button ,AL('H_DB_CREATING_A_FORM_LETTER_DETAILS',1)} [See details](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER',0)} [See related topics](#)

Details: Creating a form letter**Returning to 1-2-3**

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the form letter are automatically saved. 1-2-3 displays the form letter as an icon in the sheet.

Getting Help about form letters

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a form letter or when the form letter is active, Approach Help topics appear. Approach Help contains more information about working with form letters.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_A_FORM_LETTER_STEPS',1)} Go to procedure

Working with a form letter

To work with a form letter, it must be active. Double-click the form letter icon to activate the form letter and open Approach.

Working with a form letter

In Approach you can:

- Use the Design view to enter and edit the text and to customize the form letter.
- Use the Browse view to display the letters one at a time.
- Choose File - Print to print the letters.

Getting Help about form letters

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a form letter or when the form letter is active, Approach Help topics appear. Approach Help contains more information about working with form letters.
- If you want to get Help about 1-2-3, switch to the 1-2-3 window or choose File - Exit & Return to Lotus 1-2-3, then choose Help - Help Topics or press F1.

Returning to 1-2-3

To exit Approach and return to 1-2-3, choose File - Exit & Return to Lotus 1-2-3.

When you close Approach, any changes you made to the form letter are automatically saved. 1-2-3 displays the form letter as an icon in the sheet.

{button ,AL('H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_CREATING_A_FORM_LETTER_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} See related topics

Working with 1-2-3 data in an embedded Approach object

Query tables, forms, crosstabs, reports, form letters, and mailing labels are all Lotus Approach objects embedded in a 1-2-3 workbook. You can use these objects to work with copies of records from a 1-2-3 database table in different ways. These objects are linked to data in the database table so that edits to data in one are reflected in the other.

Activating and deactivating the objects

All Approach objects can be activated by double-clicking them. However, depending on the type of Approach object, they appear differently in the sheet.

- Query tables, forms, and crosstabs display data in the sheet when they are inactive. When you activate these objects, Approach commands appear in the 1-2-3 window. To deactivate the object, you click in the sheet.
- Reports, form letters, and mailing labels appear as icons in the sheet when they are inactive. When you activate these objects, they appear in a full Approach window. To deactivate the object, you choose the File - Exit & Return to Lotus 1-2-3 command.

Editing data using an embedded Approach object

When you edit data in any embedded Approach object, you are also editing the data in your 1-2-3 database table. However, you cannot edit protected cells in 1-2-3, and you cannot change the data type in a field from within the embedded object.

Edits you make to data directly in a 1-2-3 database table are displayed in the embedded object when you activate it or refresh it.

Cautions

- Do not edit data in the embedded object that is the result of a formula in 1-2-3 because this will convert the formula to a value in the 1-2-3 database table. Edit formulas directly in the 1-2-3 database table.
- 1-2-3 allows up to 512 characters in a field. Approach allows up to 256 characters in a field. If you edit data longer than 256 characters using an embedded Approach object, that data will be truncated in your 1-2-3 database table when you refresh the object.

Adding data to a 1-2-3 database table linked to an embedded object

When you create an embedded Approach object, 1-2-3 assigns a range name to the 1-2-3 database table range you selected, if you did not already give the range a name.

Adding records (rows)

If you use an embedded Approach object, such as a query table or form, to add a record to a 1-2-3 database table, 1-2-3 automatically expands the named range to include the new record.

However, if you add records directly in the 1-2-3 database table, you must also expand the size of the named range in 1-2-3 to include the new records when the embedded object is not active. Otherwise, the new records may not appear in the embedded object.

Adding fields (columns)

You cannot add a field to a 1-2-3 database table or change the data type of a field using an embedded Approach object.

If you add a field to the 1-2-3 database table or if you change the data type in a field (for example, from values to text), you should recreate the embedded object. Otherwise, the new field may not appear in the embedded object.

{button ,AL('H_NAMING_A_RANGE_STEPS;H_DB_ADDING_DATABASE_RECORDS_STEPS;H_DB_ADDING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} See related topics

Overview: Working with databases

A database is a collection of data organized into tables which consists of fields and records. Each record in a database contains the same kind of information.

For example,

- A city telephone book is a database that contains a record for each person with their name, address, and phone number.
- Teachers keep a record for each student that includes the student's name, test scores, and final grades.
- A business database might include records of clients' names, addresses, phone numbers, and information about sales and purchases.
- A store inventory database might include the names for each product, stock numbers, prices, manufacturers, and so on.

About 1-2-3 database tables

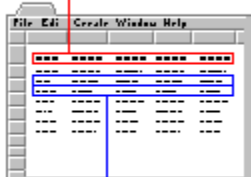


[Show me a QuickDemo](#)

A 1-2-3 database table is a range of data organized in columns and rows. Each column is one field and each row is one record. The top row must contain field names -- labels that identify the records entered in each column.

Field names

Name	Dept	ID	Job	Salary
------	------	----	-----	--------



Records

Oke	ART	1002	Design	35000
Raymond	UA	1109	Admin	39500

Once you set up a 1-2-3 database table with field names and records, you can quickly access and manipulate large amounts of data to get exactly the information you need by using a query table to find, sort, add, and delete records.

About external database tables

An external database table is a group of related records stored in a file other than a 1-2-3 workbook file. An external file can be on a personal computer, a network server, a mainframe, or a CD-ROM.

When you create a query table containing records from an external database table, you can find, sort, analyze, add, and delete records from the external database table while working in your 1-2-3 workbook.

What can you do with a database in 1-2-3?

1-2-3 offers two ways to help you manage and analyze data contained in 1-2-3 or external database tables:

- The Create - Database commands give you access to the many powerful database features of Lotus Approach. 1-2-3 and Approach are installed together when you install 1-2-3. Using the Create - Database commands, you can access Approach to create query tables, data entry forms, reports, mailing labels, form letters, and dynamic crosstabs.

For more information about using the Create - Database commands, see [Overview: Working with 1-2-3 and Approach](#).

- The Data Query Add-In (DQA) is included in this release of 1-2-3 to give you data query functionality that is similar to that in 1-2-3 Release 5. When you load DQA, you can work with query tables created in 1-2-3 Release 5 or the Query Table Add-In from 1-2-3 97. You can also create new query tables and crosstabs.

For more information about using DQA, see [Overview: Data Query Add-In \(DQA\)](#).

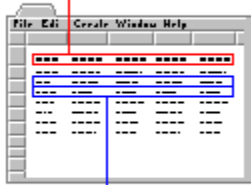
{button ,AL('H_DB_CREATING_A_123_DATABASE_TABLE_STEPS;H_DB_QUERY_TABLES_OVER;H_DB_CREATING_QUERY_TABLE_STEPS;H_DB_JOINING_DATABASE_TABLES_STEPS',0)} [See related topics](#)

Creating a 1-2-3 database table

A 1-2-3 database table is a range containing data organized by columns (fields) and rows (records). Each row contains one record and each column contains one kind of information.

Field names

Name	Dept	ID	Job	Salary
------	------	----	-----	--------



Records

Okee	ART	1002	Design	35000
Raymond	UA	1109	Admin	39500

Want the big picture? See [Overview: Working with databases](#).

1. Enter labels (field names) in adjacent cells across an empty row.

For field name guidelines, see [Details](#).

2. In the first row under each field name, enter information for the first record.
3. In the next row, enter another record.
4. Repeat step 3 for each record you want to enter in the database table.

You do not need to enter records in any particular order because you can sort the records later.

5. (Optional) Name the range that contains the 1-2-3 database table. Make sure the range includes the first row of field names.

For more information, see [Naming a range](#).

{button ,AL('H_DB_CREATING_A_123_DATABASE_TABLE_DETAILS',1)} [See details](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_JOINING_DATABASE_TABLES_STEPS',0)} [See related topics](#)

Details: Creating a 1-2-3 database table

A 1-2-3 database table must fit on a single sheet and can contain up to 256 fields and 65,535 records.

Guidelines for entering field names

- Use a label for each field name, rather than a number or formula.
- To enter a field name that begins with a number or other non-alphabetic character, enter a label-prefix character first. For example, enter **'1998_Salary** as a field name.
- Don't use field names that look like cell addresses, such as P12, X24, or EX100.
- Don't use the same field name twice in the same table. Field names must be unique.
- Don't use any of the following characters in a field name:
 - , (comma)
 - . (period)
 - : (colon)
 - ; (semicolon)
 - (hyphen)
 - # (number sign)
 - ~ (tilde)
 - ! (exclamation point)
 - spaces
 - arithmetic operators such as + (plus sign)

Guidelines for entering records

- Don't use a repeating character, such as a hyphen, to separate the row containing field names from the data.
- You can enter text, numbers, @functions, or formulas in each field.
- @Functions and formulas should contain absolute references or range names, rather than relative references.
- Use consistent formatting and capitalization in each field.
- If you want to sort and query the table by dates, make sure the dates are entered in a date format.
- You get more reliable results when you query a database table if all entries in the same field (column) contain the same type of data -- for example, all labels rather than a mix of labels and values.

Adding records and fields

You can add records by entering data in rows in the database. You can add fields by entering data in additional columns.

Naming a database table

Assigning a range name to a database table makes it easier to specify the entire table when you want to query it or use it with database @functions.

Follow these rules when assigning a range name to a database table:

- The row containing the field names must be the first row of the named range.
- To avoid confusion, don't use a range name that matches any field names in the same table or any other table you want to query.
- If you add records or fields to a 1-2-3 database table, you must expand the named range to include the new data.

Formatting a database table

Once you enter information in a database table, you can use the InfoBox to change text attributes, number formats, and alignment of the data.

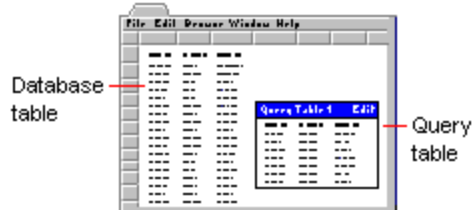
{button ,AL('H_DB_CREATING_A_123_DATABASE_TABLE_STEPS',1)} Go to procedure

Overview: Working with 1-2-3 and Approach

1-2-3 works with Lotus Approach to help you manage and analyze data contained in a 1-2-3 database table or an external database table. 1-2-3 and Approach are installed together when you install 1-2-3.

Using the Create - Database commands in 1-2-3, you can access Approach to create the following Approach views:

- Query tables -- To add, edit, sort, and find records in either a 1-2-3 or an external database table.



- Forms -- To view every record in a 1-2-3 database table, one record at a time. You can use a form to add and edit records.



- Reports -- To organize, analyze, and present data from many records in a 1-2-3 database table.



- Dynamic crosstabs -- To organize and summarize categories of data from many records in a 1-2-3 database table.



- Mailing labels -- To display information in a 1-2-3 database table in a mailing address format. You can then print the addresses on standard or custom mailing labels.



- Form letters -- To combine text in a letter with names and addresses from 1-2-3 database records, so you can send copies of the same letter to many different people.



You can also join related database tables to work with more than one database table at a time.

How 1-2-3 and Approach work together

When you use the Create - Database commands to create a query table, form, report, crosstab, form letter, or set of mailing labels, 1-2-3 loads a portion of the Approach program into memory and creates the query table or other Approach view as an embedded Approach object in the 1-2-3 sheet.

The embedded object is part of the 1-2-3 workbook file. You can work with the embedded Approach object, such as a query table, in three ways:

- As an embedded Approach object, a query table is like other objects in 1-2-3. When you select the query table, you can move it, change its properties, copy it, or delete it.
- You can also "activate" an embedded object by double-clicking it. When a query table is active, you see a different menu that lets you use 1-2-3 and Lotus Approach together to edit, sort, and query database records.
- Finally, you can open the embedded object in a full Approach window to use all of the powerful features in Approach. For example, you can use Approach's Design mode to change the way a form or report looks.

Another way to work with a database table

1-2-3 offers another way to work with query tables and crosstabs: the Data Query Add-In (DQA), which is similar to the query table features in 1-2-3 Release 5. For more information, see Overview: Data Query Add-In (DQA).

```
{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_CREATING_A_DYNAMIC_CROSSTAB_
STEPS;H_DB_CREATING_A_FORM_LETTER_STEPS;H_DB_CREATING_A_REPORT_STEPS;H_DB_CREATI
NG_FORMS_STEPS;H_DB_CREATING_MAILING_LABELS_STEPS;H_DB_CREATING_QUERY_TABLE_STEP
S;H_DB_QUERY_TABLES_OVER',0)} See related topics
```

Overview: Query tables

You create a query table in 1-2-3 to find, sort, and edit the information stored in a 1-2-3 database table or an external database table. The query table contains a copy of all the database records from the table you specified. You can use a query table to:

- Find specific records.
- Bring data from an external database table into 1-2-3.
- Make changes to the source records.

When you create a query table, 1-2-3 loads a portion of Lotus Approach into memory. The query table is an Approach view of the contents of the database table you queried. It appears as an Approach object embedded in the 1-2-3 sheet.



Caution In this release of 1-2-3, the query table writes over existing data in the cells in which you place it. To avoid losing data, create a new sheet to hold the query table.

Query tables and database tables are linked

A query table is linked to the database table you queried. Any changes you make to the data in the query table in Edit mode are automatically made to the source database table.

Similarly, if records in the source database table change, you can refresh the query table to reflect the current data.

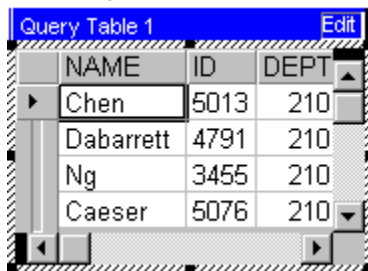
Query tables can appear in two modes

Initially, the query table is active, or in Edit mode. When you click in the sheet outside the query table, the query table switches to Output mode, or becomes inactive. In this release of 1-2-3, when the query table is in Output mode, you see the data in the output range.

Working with a query table in Edit mode

When the query table is in Edit mode, you can perform the following tasks:

- Find and sort records.
- Edit, add, or delete records in the source database table.
- Change the fields that appear in the query table.



Working with a query table in Output mode

When the query table is in Output mode, you can perform the following tasks:

- View the data more easily.
- Style and print the data.
- Use the data in calculations, charts, and maps.
- Change the query table properties.

Query Table 1		Output
NAME	ID	DEPT
Chen	5013	210
Dab Barrett	4791	210
Ng	3455	210
Caeser	5076	210

For more information, see [Working with a query table](#).

Getting Help on query tables

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a query table or when the query table is active, Approach Help topics appear. Approach Help contains more information about working with query tables, which are called worksheets in Approach.
- If you want to get Help about 1-2-3, click in the sheet outside the query table, then choose Help - Help Topics or press F1.

Another way to work with database tables

1-2-3 also offers the Data Query Add-In (DQA), which gives you data query functionality similar to that in 1-2-3 Release 5. With DQA, you can create query tables and crosstabs, and connect to external database tables. If your database needs are simple, your computer doesn't have a large amount of memory or disk space, or you need to work with query tables created in 1-2-3 Release 5, you may find that DQA is a useful alternative to the Create - Database - Query Table command. For more information, see [Overview: Data Query Add-In \(DQA\)](#).

{button ,AL('H_123_CREATING_A_QUERY_TABLE_EX',1)} [See example](#)

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_CREATING_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_123_DATA_IN_AN_EMBEDDED_APPROACH_OBJECT_OVER;H_DB_QUERY_DATABASE_RECORDS_STEPS;H_DB_SORTING_DATABASE_RECORDS_STEPS;H_DB_ADDING_DATABASE_RECORDS_STEPS;H_DB_DELETING_DATABASE_RECORDS_STEPS;H_DB_EDITING_DATABASE_RECORDS_STEPS;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_QUERY_OUTPUT_TO_RANGE_STEPS',0)} [See related topics](#)

Query Table Assistant

Use the Query Table Assistant to create a query table. A query table contains a copy of the records from a source database table either in 1-2-3 or in an external file, and is linked to the source database.

After you create the query table, you can use the Browse commands or the Find Assistant to find and display a selected set of records by specifying criteria (conditions) for a query. You can also sort the records in the query table. Changes you make to the query table, such as adding, editing, or deleting records, are made in the source database table as well.



Choose a task

Creating a query table

{button ,AL('H_DB_QUERY_TABLES_OVER',0)} [See related topics](#)

Creating a query table

1-2-3 works with Lotus Approach to create a query table in 1-2-3. After you create the query table, you can find specific records by using the Browse commands to set the criteria (conditions) for a query.

Want the big picture? Overview: Query tables.

To create a query table from a 1-2-3 database table, follow the instructions below. To work with an external database table, see Creating a query table from an external database.

Caution To avoid writing over data, place the query table in a blank sheet. Create the new sheet before you begin.

1. From the Create menu, choose Database, and then choose Query Table.



2. In the Query Table Assistant, select "1-2-3 range."
3. Enter the range or use the range selector to specify the database table that you want to use as the data source.
4. Enter the range or use the range selector to specify the location for the query table.

Tip For tips on specifying the location, see Details.

5. Click OK.
6. When the Worksheet Assistant appears, select the fields you want to work with in the query table.

Tip For more information, click Help in the Worksheet Assistant.

7. Click Done.

The query table appears in Edit mode and initially includes all the records from the source database table, although you may need to switch to Output mode to view them easily.

8. (Optional) To set criteria to limit the query table to specific records, choose Browse - Find while in Edit mode.

For more information, see Finding specific records in a query table.

9. To view the data in cells in the sheet, click in the sheet outside the query table to switch to Output mode.

{button ,AL('H_DB_CREATING_QUERY_TABLE_DETAILS',1)} See details

{button ,AL('H_123_CREATING_A_QUERY_TABLE_EX',1)} See example

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_QUERY_DATABASE_RECORDS_STEPS;H_123_CREATING_A_QUERY_TABLE_FROM_AN_EXTERNAL_DATABASE_STEPS',0)} See related topics

Details: Creating a query table

Specifying a 1-2-3 range as the source of the input data

If a single cell in a 1-2-3 database table was selected when you chose Create - Database - Query Table, the Query Table Assistant automatically selects the entire table and displays the range name, if you assigned one to the database table.

If the 1-2-3 range displayed in the range box is not correct, enter a different range or use the [range selector](#) to specify a range.

Note If the database table does not already have a range name, 1-2-3 assigns a range name to it when you create a query table.

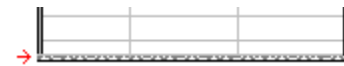
Selecting the location for the new query table

The query table title bar may appear on the bottom of the query table if there is not enough room to display it on top.

To avoid writing over data, place the query table in a blank area of the sheet or in a new sheet you created previously.

To specify the range where you want to display the query table, you can:

- Select a single cell - 1-2-3 uses this as the top left corner of the range and enters all the data in the sheet.
- Select a range - 1-2-3 enters only the data that fits in this range. If all the data does not fit in the selected range, the bottom (if more rows available) or right border (if more columns available) of the query table displays as a dashed border.



You can drag the border to display more of the data.

- Click a sheet tab to put the query table on another sheet.

Note A query table range cannot span more than one sheet. You cannot specify a range in another file as the sheet location. Also, if the data retrieved is more than 65,536 rows or 256 columns, 1-2-3 retrieves only 65,536 rows and 256 columns of data.

Working with Edit mode and Output mode

When the query table is in Edit mode, Approach commands and buttons appear in the main menu and status bar. The Browse commands let you find, sort, and edit data.

In this release of 1-2-3, when you click in the sheet outside the query table, the query table switches to Output mode. When the query table is in Output mode, you see the data in the output range. For more information, see [Working with a query table](#).

Tip Instead of resizing the query table when it is in Edit mode to view all the data, use Output mode to view the data in cells in the sheet. If you resize the query table when it is in Edit mode, 1-2-3 limits the size of the query table when it is in Output mode to a fixed range, so that you may not be able to see all the data. If the fixed size prohibits the display of records or fields, the query table border appears as a dashed line. To display all the fields and records, select the query table in Output mode, choose Query Table - Output Range, then select Variable.

Getting Help about query tables

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a query table or when the query table is active, Approach Help topics appear. Approach Help contains more information about working with query tables, which are called worksheets in Approach.
- If you want to get Help about 1-2-3, click in the sheet outside the query table, then choose Help - Help Topics or press F1.

{button ,AL('H_DB_CREATING_QUERY_TABLE_STEPS',1)} [Go to procedure](#)

Creating a query table from an external database

1-2-3 works with Lotus Approach to create a query table in 1-2-3. After you create the query table, you can find specific records by using the Browse commands to set the criteria (conditions) for a query.

Want the big picture? Overview: Query tables.

To create a query table from an external database table, follow the instructions below. To work with a 1-2-3 database table, see Creating a query table.

Caution To avoid writing over data, place the query table in a blank sheet. Create the new sheet before you begin.

1. From the Create menu, choose Database, and then choose Query Table.



2. In the Query Table Assistant, select "External table."
3. Enter the range or use the range selector to specify the location for the query table.

Tip For tips on specifying the location, see Details.

4. Click OK.
5. In the Open dialog box, select the file containing the source database table.
6. Click OK.

Depending on the type of database you need to access, you may be prompted to enter a password to log into a database server.

7. When the Worksheet Assistant appears, select the fields you want to work with in the query table.

Tip For more information, click Help in the Worksheet Assistant.

8. Click Done.

The query table appears in Edit mode and initially includes all the records from the source database table, although you may need to switch to Output mode to view them easily.

9. (Optional) To set criteria to limit the query table to specific records, choose Browse - Find while in Edit mode.

For more information, see Finding specific records in a query table.

10. To view the data in cells in the sheet, click in the sheet outside the query table to switch to Output mode.

{button ,AL('H_123_CREATING_A_QUERY_TABLE_FROM_AN_EXTERNAL_DATABASE_DETAILS',1)} See details

{button ,AL('H_123_CREATING_A_QUERY_TABLE_EX',1)} See example

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_QUERY_DATABASE_RECORDS_STEPS;;H_123_WORKING_WITH_123_AND_APPROACH_OVER;H_DB_CREATING_QUERY_TABLE_STEPS;H_123_ODBC_DRIVERS_OVER',0)} See related topics

Details: Creating a query table from an external database

Specifying an external table for the input data

If you choose an external database table for the input data, you will be prompted to specify the file containing the database table. In the process of choosing an external database table, you may also need to log in to a database server.

See your database administrator for additional information about logging in to your database servers, or see [Overview: ODBC drivers](#).

Working with ODBC drivers

1-2-3 uses ODBC drivers to connect to external database tables. ODBC drivers allow 1-2-3 to read data from and send data to an external database.

You need to install and configure ODBC drivers for each database type you want to open. For more information, see [Overview: ODBC drivers](#).

Selecting the location for the new query table

The query table title bar may appear on the bottom of the query table if there is not enough room to display it on top.

To avoid writing over data, place the query table in a blank area of the sheet or in a new sheet you created previously.

To specify the range where you want to display the query table, you can:

- Select a single cell - 1-2-3 uses this as the top left corner of the range and enters all the data in the sheet.
- Select a range - 1-2-3 enters only the data that fits in this range. If all the data does not fit in the selected range, the bottom (if more rows available) or right border (if more columns available) of the query table displays as a dashed border.



You can drag the border to display more of the data.

- Click a sheet tab to put the query table on another sheet.

Note A query table range cannot span more than one sheet. You cannot specify a range in another file as the sheet location. Also, if the data retrieved is more than 65,536 rows or 256 columns, 1-2-3 retrieves only 65,536 rows and 256 columns of data.

Working with Edit mode and Output mode

When the query table is in Edit mode, Approach commands and buttons appear in the main menu and status bar. The Browse commands let you find, sort, and edit data.

In this release of 1-2-3, when you click in the sheet outside the query table, the query table switches to Output mode. When the query table is in Output mode, you see the data in the output range. For more information, see [Working with a query table](#).

Tip Instead of resizing the query table when it is in Edit mode to view all the data, use Output mode to view the data in cells in the sheet. If you resize the query table when it is in Edit mode, 1-2-3 limits the size of the query table when it is in Output mode to a fixed range, so that you may not be able to see all the data. If the fixed size prohibits the display of records or fields, the query table border appears as a dashed line. To display all the fields and records, select the query table in Output mode, choose Query Table - Output Range, then select Variable.

Getting Help about query tables

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a query table or when the query table is active, Approach Help topics appear. Approach Help contains more information about working with query tables, which are called worksheets in Approach.
- If you want to get Help about 1-2-3, click in the sheet outside the query table, then choose Help - Help Topics or press F1.

{button ,AL('H_123_CREATING_A_QUERY_TABLE_FROM_AN_EXTERNAL_DATABASE_STEPS',1)} [Go to procedure](#)

Example: Creating a query table

You create a query table in 1-2-3 to work with the information stored in a 1-2-3 database table or an external database table. The query table contains a copy of all the database records from the table you specified.

Working with the Query table in Edit mode

Suppose you work with a database table that contains employee records. You want to create a query table to find all the records for employees in department 210.

Initially, the query table appears in Edit mode. It contains all the records in the database table.

A	B	C	D	E	F	G	H	I
1	NAME	ID	DEPT					
2	Anton	1964	220					
3	Azibad	1777	510					
4	Baker	3350	420					
5	Burns	4030	200					
6	Caeser	5076	210					
7	Chen	5013	210					
8	Dabarrett	4791	210					
9	Donovan	5151	101					
10	Ferguson	3097	510					
11	Green	1372	310					
12	Hagerty	1773	220					
13	Hayward	4322	510					
14	Hughes	2165	510					
15	Johnson	2390	510					
16	Loffen	2305	220					
17	Love	4000	220					

Query Table 1			Edit
NAME	ID	DEPT	
Anton	1964	220	
Azibad	1777	510	
Baker	3350	420	
Burns	4030	200	
Caeser	5076	210	
Chen	5013	210	
Dabarrett	4791	210	
Donovan	5151	101	
Ferguson	3097	510	

To find all the records for employees in department 210, you use Browse - Find - Find Assistant to specify the criteria "DEPT is exactly equal to 210."

Viewing the found records in Output mode

To view the found set of records, you can click in the sheet outside the query table to switch to Output mode. When the query table is in Output mode, 1-2-3 displays the data in cells in the sheet.



You can switch back to Edit mode at any time to perform other queries, sort the records, or edit the data.

{button ,AL('H_123_CREATING_A_QUERY_TABLE_FROM_AN_EXTERNAL_DATABASE_STEPS;H_DB_QUERY_TABLES_OVER;H_DB_CREATING_QUERY_TABLE_STEPS',0)} [See related topics](#)

Working with a query table

In the current release of 1-2-3, query tables can appear in Edit mode or Output mode. You can perform different sorts and queries in a query table when it is in Edit mode, but only the most recent results are displayed in the query table when it is in Output mode.

- To find, sort, or edit the records, work with the query table in Edit mode.
- To print the records, use the data in calculations, or create charts and maps with the data, work with the query table in Output mode. You may also find that Output mode makes it is easier to view all the data.

Want the big picture? See [Overview: Query tables](#).



[See related topics](#)

Working with a query table in Edit mode

When you create a query table, it initially appears in Edit mode. To switch the query table to Edit mode after it has become inactive, double-click the query table title bar or select the query table and choose Query Table - Edit.



When a query table is active, or in Edit mode, its title bar is blue and displays "Edit," and the Browse command appears on the main menu.

When the query table is in Edit mode, you can:

- Use the Browse commands to add, duplicate, delete, and edit records. Because the query table is linked to the database table you queried, 1-2-3 automatically makes these changes to the source database table.
- Use the Browse commands to find, sort, hide, and refresh records in the query table.
- Use the Find Assistant to set up criteria (conditions) for a query.
- Size the query table.
- Rearrange the fields in the query table.
- Choose Edit - Open to Full Window to access much more of Approach's database functionality. For example, you can change the data formats, change the query table layout, and join database tables that contain related information. You can also use Create - Field Definition to create a calculated field for the query table.

Caution If you use Edit - Open to Full Window to work with a query table, do not use the Script Editor in Approach.

Tip Instead of resizing the query table when it is in Edit mode to view all the data, use Output mode to view the data in cells in the sheet. If you resize the query table when it is in Edit mode, 1-2-3 limits the size of the query table when it is in Output mode to a fixed range, so that you may not be able to see all the data. If the fixed size prohibits the display of records or fields, the query table border appears as a dashed line. To display all the fields and records, select the query table in Output mode, choose Query Table - Output Range, then select Variable.



[See related topics](#)

Working with a query table in Output mode

To switch the query table to Output mode, click in the sheet outside the query table.



When the query table is inactive, or in Output mode, its title bar is gray and displays "Output," and the query table data appears in cells in the sheet. The range that contains the inactive query table is called the output range.

When the query table is in Output mode, you can:

- View the data more easily because it appears in cells in the sheet.
- Style and print the data.
- Use data in calculations, charts, and maps.
- Use the Query Table commands to change the name and properties of the table, show or hide the name and border, specify an output range, and refresh output range data from the source database table.
- Move the query table by dragging the title bar.
- Size the query table.
- Delete the query table by pressing DEL.

Notes

- You cannot select more than one query table at a time.
- You cannot group query tables.
- Do not make versions of a query table. Refreshing the query table produces unexpected results in the versions.
- When you click a cell or select a range inside a query table in Output mode, you are selecting the data in the query table range, not the query table. To select all the cells in the query table, right-click the query table frame and choose Select Table Range.
- You can also choose Edit - Go To to select a query table if it is out of view or if the frame is turned off.



[See related topics](#)

Editing and styling data in Output mode

You can make changes to and style the data in a query table when it is in Output mode. For example, you can change the column widths and number formats. However:

- Changes you make to the query table when it is in Output mode do not affect the data in the query table when it is in Edit mode or the data in the source database table.
- Any changes you make to data in Output mode will be lost the next time you refresh the query table. To save the results of each sort or find, you can copy the records from the output range to another range in 1-2-3. The copied records are no longer linked to the query table and will not change when you change data in the query table.
- Style changes you make to the query table when it is in Output mode do not change when you refresh the query table.

Turning off the output range display

If you do not want the data to appear in cells in the sheet when the query table is inactive, you can turn off the display of the output range. When the output range is turned off, the inactive query table becomes an object that you cannot edit instead of going into Output mode.

Getting Help on query tables

This topic is part of 1-2-3 Help.

- If you choose Help - Help Topics, click a Help button, or press F1 while you are creating a query table or when the query table is in Edit mode, Approach Help topics appear. Approach Help contains more information about working with query tables, which are called worksheets in Approach.
- If you want to get Help about 1-2-3, click in the sheet outside the query table, then choose Help - Help Topics or press F1.

Controlling the display of the output range

You can rename a query table and control the display of the output range when the query table is in Output mode. You can also turn off the display of the output range if you do not want the data to appear in cells in the sheet when the query table is inactive. When the output range is turned off, the inactive query table becomes an embedded object that you cannot edit.

Want the big picture? See [Working with a query table](#).

1. With the query table in Output mode, click the query table title bar to select it.
2. From the Query Table menu, choose Query Table Properties.



3. To rename the query table, click the Basics tab in the [InfoBox](#), then enter a new name.
4. To display the query table in Output mode without the title bar and borders, click the Basics tab, then deselect "Show name and borders."
5. To choose whether to display the output range, click In the Output range tab, then do one of the following:
 - Deselect "Show query table results in a range" to show the query results in an inactive query table object instead of an output range. The inactive query table appears without the scroll bars. You cannot make changes to an inactive query table object.
 - Select "Show query table results in a range" to show the query results in an output range when the query table is in Output mode. Any formulas from the source database table are converted to values in the output range.
6. Select the size of the output range.
 - Variable -- Enters all the records and fields in the sheet, starting in the cell where the top left corner of the activated query table appears. If you subsequently change the number of records with a find, the next time you view the output range, it will be a different size.
 - Fixed -- Limits the size of the output range. 1-2-3 copies only the data that will fit in the selected range.
7. (Optional) If the 1-2-3 range displayed in the range box is not the correct range for the query table, enter a different range or use the [range selector](#) to specify a range.
8. (Optional) [Move, collapse, or close](#) the InfoBox.

Tip If you resize the query table when it is in Edit mode, 1-2-3 limits the size of the query table when it is in Output mode to a fixed range, so that you may not be able to see all the data. If the fixed size prohibits the display of records or fields, the query table border appears as a dashed line. To display all the fields and records, select the query table in Output mode, choose Query Table - Output Range, then select Variable.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} [See related topics](#)

Finding specific records in a query table

Use the Approach Find/Sort Assistant to set the criteria (conditions) for finding specific records. When you find specific records, the query table hides all the records except the ones that meet the conditions you specified.

Want the big picture? See Overview: Query tables.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. From the Browse menu, choose Find, and then choose Find Assistant.
3. Under "Type of Find," select one of the following:
 - Basic Find -- to find records that meet criteria you specify.
 - Find duplicate records -- to find records that have identical entries in the selected field(s).
 - Find distinct records -- to find records with unique entries in the selected field(s).
 - Find the top or lowest values -- to find a specified number of records with the highest or lowest values.
 - Find using Query by Box - to set criteria by dragging criteria in a way similar to 1-2-3 Release 5.
4. Click Next, then specify the conditions for the query.

For information on setting conditions for finding records, click Help while you are in the Find Assistant dialog box.
5. Click Done to display the results in the query table.
6. (Optional) Click in the sheet outside the query table to view the data in Output mode.

Tip To redisplay all the records from the source database table, double-click the query table title bar, and then choose Browse - Find - Find All.

{button ,AL('H_DB_QUERY_DATABASE_RECORDS_DETAILS',1)} See details

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_DELETING_DATABASE_RECORDS_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} See related topics

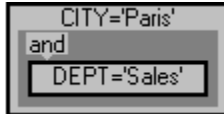
Details: Finding specific records in a query table

Tip When the query table is in Edit mode, you can click the Find Assistant button to open the Find Assistant dialog box quickly.

Finding records using Query by Box

Query by Box makes it easy to define sophisticated find conditions that require the setting of AND and OR precedence. In Query by Box, you define the find conditions by positioning the conditions in boxes in relation to each other.

For example, the following conditions define the conditions CITY=Paris AND DEPT=Sales:



A diagram of the Query by Box interface. It consists of a rectangular frame. At the top, a box contains the text 'CITY='Paris''. Below this box, the word 'and' is centered. At the bottom, another box contains the text 'DEPT='Sales''.

You can also connect three or more find conditions with combinations of AND and OR relationships. For example, to retrieve the records of employees in either the Paris or the London office who are in the Sales department, you can define the find conditions this way.



A diagram of the Query by Box interface. It consists of a rectangular frame. At the top, a box contains the text 'DEPT='Sales''. Below this box, the word 'and' is centered. At the bottom, there are two boxes: the left one contains 'CITY='Paris'' and the right one contains 'CITY='London'', with the word 'or' centered between them.

For more information about Query by Box, click Help in the Find Assistant dialog box.

{button ,AL('H_DB_QUERY_DATABASE_RECORDS_STEPS',1)} [Go to procedure](#)

Sorting records in a query table

You can change the order of the records in a query table by sorting them. Sorting records in the query table does not change the order of records in the source database table.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. Click in the field you want to sort by.
3. From the Browse menu, choose Sort.
4. Do one of the following:
 - Choose Ascending or Descending to sort the records by the field you selected.
 - Choose Define to do a more complex sort or add summary fields. If you choose Define, you can click Help to get additional information on defining a sort and summary fields.

The results are displayed in the query table.

5. (Optional) Click in the sheet outside the query table to view the data in Output mode.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_REORDERING_FIELDS_IN_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} [See related topics](#)

Sizing a query table

You can change the size of the query table when it is in Edit mode or Output mode.

Sizing a query table in Edit mode

- To size the entire query table, drag any of the handles on the border.
- To size the columns in the query table, position the mouse pointer on the column border to the right of the column letter and drag the border until the column is the width you want.

Sizing a query table in Output mode

Dragging the selections handles when the query table is in Output mode adds or removes columns or rows from the query table display. To automatically display all the records and fields in the query table when it is in Output mode, make sure the Output range display is set to Variable.

1. With the query table in Output mode, click the query table title bar to select it.
2. From the Query Table menu, choose Output Range.
3. In the Output range tab of the InfoBox, select Variable or Fixed.
4. (Optional) Move, collapse, or close the InfoBox.
5. To size the columns in the query table in Output mode, size the columns of the sheet.

See Sizing columns.

{button ,AL('H_123_SIZING_A_QUERY_TABLE_DETAILS',1)} See details

{button ,AL('H_SIZING_ROWS_STEPS;H_DB_ADDING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_DB_ADDING_DATABASE_RECORDS_STEPS;H_DB_COPYING_QUERY_TABLE_STEPS;H_DB_DELETING_AN_OUTPUT_RANGE_STEPS;H_DB_MOVING_AND_SIZING_QUERY_TABLE_STEPS;H_DB_QUERY_OUTPUT_TO_RANGE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} See related topics

Details: Sizing a query table

Changing the size of the query table in Edit mode changes the size of the query table in Output mode, and vice versa.

Size of output range

"Size of output range" lets you select a variable or fixed output range size for the query table in Output mode.

- Variable -- Automatically displays all the records and fields in the sheet, starting in the cell where the top left corner of the active query table appears.

If you subsequently change the number of records with a find, the next time you view the query table in Output mode, it will be a different size.

- Fixed -- Limits the size of the query table in Output mode to the range specified in the Output range tab in the InfoBox.

If the 1-2-3 range displayed in the range box is not the correct range for the query table, enter a different range or use the [range selector](#) to specify a range.

If all the data does not fit in the range, the bottom (if more records available) or right (if more fields available) border of the query table displays as a dashed border.

Note If you manually resize the query table in Edit or Output mode by dragging, the "Size of output range" option changes to "Fixed."

Resizing tables over anchor cells

If you drag or paste data into either of the [anchor cells](#) for the query table, even if the anchor cell is blank, a message appears indicating that you are about to write over an anchor cell. Overwriting an anchor cell disconnects the query table from the cells below it and turns off the display of the query table's output range.

{button ,AL('H_123_SIZING_A_QUERY_TABLE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_DB_QUERY_OUTPUT_TO_RANGE_STEPS',0)} [See related topics](#)

Deleting a query table

You can delete a query table when it is in Edit mode or Output mode. When you delete the query table, the data no longer appears in the output range. Deleting the query table does not affect data in the source database table.

1. Select the query table you want to delete.
2. Press DEL.



{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_AN_OUTPUT_RANGE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} [See related topics](#)

Adding records using a query table

Adding a new record to a query table also adds the record to the source database table.

1. Double-click the query table title bar to switch the query table to Edit mode.

2. From the Browse menu, choose New Record.

A new blank record is added to the end of both the query table and the source database table.

3. In the query table, type data in each field of the new record. Press TAB or → to move to the next field.

4. Press ENTER after you have entered data for the entire record to add the new data to the source database table.

5. (Optional) Click in the sheet outside the query table to view the data in Output mode.

Note You can also create and use a form to add records to a 1-2-3 database table.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_DELETING_DATABASE_RECORDS_STEPS;H_DB_CREATING_FORMS_STEPS;H_DB_WORKING_WITH_A_FORM_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_REFRESHING_DATA_STEPS',0)} [See related topics](#)

Editing records using a query table

Editing a record in a query table also edits that record in the source database table.

Caution Do not edit data in the query table that is the result of a formula in 1-2-3 because this will convert the formula to a value in your 1-2-3 database table. Edit formulas in the source database table.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. Select the cell containing data you want to change.

Caution 1-2-3 allows up to 512 characters in a field. Approach allows up to 256 characters in a field. If you edit data longer than 256 characters using a query table, that data will be truncated in your 1-2-3 database table.

3. Change the data and press ENTER.

Data automatically changes in the source database table.

4. (Optional) Click in the sheet outside the query table to view the data in Output mode.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_CREATING_FORMS_STEPS;H_DB_WORKING_WITH_A_FO
RM_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABL
E_STEPS;H_DB_REFRESHING_DATA_STEPS',0)} See related topics

Deleting records using a query table

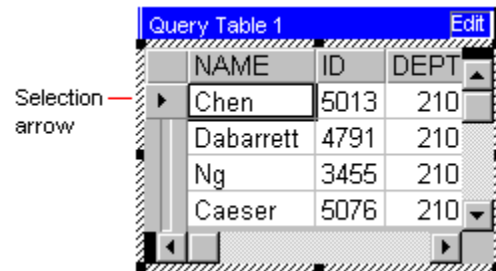
Deleting records from a query table also deletes the records from the source database table. For example, you might want to delete a record for one person, or you might want to delete all records entered before a specific date.

Caution You cannot undo deleting records.

Deleting selected records

You can select one or more records you want to delete.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. Click the record you want to delete.
3. (Optional) To delete more than one record, click the selection arrow (in the left border) and drag down in the left border to select the records you want to delete.



4. From the Browse menu, choose Delete Record.
5. Click Yes to permanently delete the selected records from both the query table and the source database table.

Deleting found records

You can delete all the records found as the result of a query.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. From the Browse menu, choose Find Assistant to set criteria (conditions) and find the records you want to delete. For more information, click Help while you are in the Assistant dialog box.
3. Check the query table to make sure it contains only the records you want to delete.
4. From the Browse menu, choose Delete Found Set to delete all the records found.
5. Click Yes to permanently delete the found records from the source database table.

After you delete the found records, 1-2-3 refreshes the query table to display all of the remaining records in the source database table.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_ADDING_DATABASE_RECORDS_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_QUERY_DATABASE_RECORDS_STEPS',0)} [See related topics](#)

Adding a field in a query table

Adding a field in the query table does not add a field to the source database table, but you may want to add a field in a query table if:

- You didn't include all of the fields when you first created the query table.
- You created a calculated field in Lotus Approach and want to add that field to the query table.
- You joined two or more tables and want to add fields from another table.

To add a field to a query table:

1. Double-click the query table to switch the query table to Edit mode.
2. From the Edit menu, choose Add Field.

The Add Field dialog box displays the name of the database table and the fields that it contains.

3. To add a field from a joined database, select the database table that contains the field you want to add.
4. Drag the field name from the Add Field dialog box to the query table.

For more information on working with fields, click Help while you are in the Add Field dialog box.

5. (Optional) Click in the sheet outside the query table to view the data in Output mode.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_DELETING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_DB_REORDERING_FIELDS_IN_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;';0)
} [See related topics](#)

Reordering fields in a query table

Changing the order of the fields in the query table does not affect the source database table. However, these changes will appear in the output range when you refresh it.

1. Double-click the query table to switch the query table to Edit mode.
2. Click a field name.
3. When the mouse pointer changes to a hand, drag the field to a different location.
1-2-3 displays a highlighted line between the columns in the query table as you drag the field to a new location. This line indicates where the field will go when you release the mouse button.
4. (Optional) Click in the sheet outside the query table to view the data in Output mode.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_ADDING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_DB_DELETING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;','0')} See related topics

Deleting a field in a query table

Deleting a field in the query table does not delete the field in the source database table, but it does delete the field in the output range when you refresh it.

1. Double-click the query table to switch the query table to Edit mode.
2. Click the field name you want to delete.
3. Press DEL.
4. (Optional) Click in the sheet outside the query table to view the data in Output mode.

{button ,AL(`H_DB_QUERY_TABLES_OVER;H_DB_REORDERING_FIELDS_IN_A_QUERY_TABLE_STEPS;H_DB_ADDING_A_FIELD_IN_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;`,`0`)}

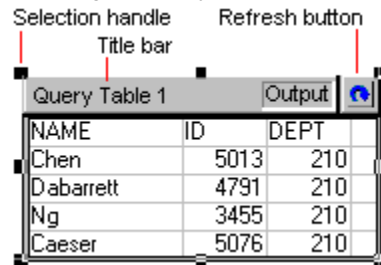
[See related topics](#)

Moving a query table

You can only move a query table when it is in Output mode.

Caution To avoid writing over data, do not move a query table over other data in the sheet.

1. With the query table in Output mode, click the query table title bar to select it.
2. Drag the query table title bar to the new location.



```
{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_123_SIZING_A_QUERY_TABLE_STEPS',0)} See related topics
```

Copying a query table

You can create copies of a query table in the same 1-2-3 workbook to perform different queries using records from the same source database table. You cannot copy a query table to a different file.

1. With the query table in Output mode, click the query table title bar to select it.
2. From the Edit menu, choose Copy.



3. Click in the sheet where you want to copy the query table.
4. From the Edit menu, choose Paste.



When you copy a query table, 1-2-3 assigns a new name to the table. The copy of the query table is still linked to the source database table. You can activate either query table to work with the source database table.

Note If you copy a query table, be aware that changing records in either query table when it is in Edit mode changes records in the same source database table.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_QUERY_OUTPUT_TO_RANGE_STEPS;H_DB_WORKING_WITH_AN_OUTPUT_RANGE_STEPS',0)} See related topics

Refreshing data in a query table

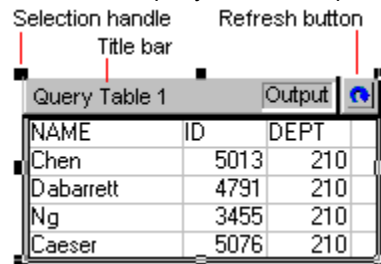
A query table is linked to the database table you queried. If you are working with a source database table that you share with other users, you can refresh the data in the query table when it is in either Edit mode or Output mode as often as you like to ensure that you are working with the most recent data.

Do one of the following:

- With the query table in Edit mode, choose Browse - Refresh Data.
- With the query table in Output mode, choose Query Table - Refresh.



- With the query table in Output mode, click the Refresh button in the query table title bar.



Note If the source database table changes while the query table is in Output mode, 1-2-3 automatically refreshes the data when you switch the query table to Edit mode.

Caution Any changes you make to the query table when it is in Output mode will be lost the next time you refresh the query table. Always edit the data when the query table is in Edit mode.

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_WORKIN
G_WITH_AN_OUTPUT_RANGE_STEPS',0)} [See related topics](#)

Joining database tables

You can use Lotus Approach to join databases that contain at least one common field. When you join database tables, you can include fields and records from two or more database tables in a single query table, provided the tables have a common field.

For example, you might work with two databases that contain different kinds of information about the employees in your company. If each database contains a field for employee identification codes, you can join the databases and view the data from both in a query table.

Note You can also view joined databases in forms, reports, crosstabs, form letters, and mailing labels.

1. Double-click the query table title bar to switch the query table to Edit mode.
2. From the Edit menu, choose Open Into Full Window to open the query table in Approach.
3. From the Create menu, choose Join.

The name of the source database table and the fields appear in the Join dialog box.

Tip For more information on joining database tables, click Help when you are in the Join dialog box.

4. Click Open, then open the database table you want to join.
5. For each field you want to join, click the field in one database and then drag to a field in the other database.

The fields you join must contain the same kind of data, although the field names can be different.

6. (Optional) Click Options to review the insertion and deletion options for this join.
7. Click OK.
8. From the File menu, choose Exit & Return to Lotus 1-2-3.

To add fields from the second database table to the query table, see [Adding a field in a query table](#).

{button ,AL('H_DB_JOINING_DATABASE_TABLES_EX',1)} [See example](#)

{button ,AL('H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_ODBC_DRIVERS_OVER',0)} [See related topics](#)

Example: Joining database tables

You can join database tables to combine records and fields from two or more database tables in a single query table.

Joining two database tables

For example, you want to join an employee database table named EMPLOYEE with a database table named BENEFITS that contains their employee benefits.

EMPLOYEE

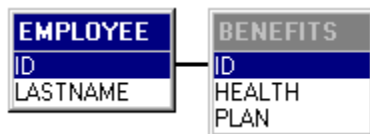
ID	LASTNAME
45324	Kravitz
32465	Lee
35214	Garcia
24367	Jackson

BENEFITS

ID	HEALTH	PLAN
32465	Yes	Single
24367	Yes	Family
35214	No	None
45324	Yes	Single

Both tables contain the field ID, which holds employee identification numbers. Two database tables can be joined if they both have a field that contains the same kind of data, although the field name can be different.

To join these two tables, create the following join in the Join dialog box:



Now you can add fields from the BENEFITS table to the query table for EMPLOYEE.

ID	LASTNAME	HEALTH	PLAN
24367	Jackson	Yes	Family
32465	Lee	Yes	Single
35214	Garcia	No	None
45324	Kravitz	Yes	Single

Joining more than two database tables

You also have a database table that contains details about the available health plans.

HEALTHPLANS

PLAN	COST
Single	750
Family	1500
None	0

To join these three tables, create the following join in the Join dialog box:



Now you can include fields from all three databases in the query table.

ID	LASTNAME	HEALTH	PLAN	COST
24367	Jackson	Yes	Family	1500
32465	Lee	Yes	Single	750
35214	Garcia	No	None	0
45324	Kravitz	Yes	Single	750

Overview: ODBC drivers

1-2-3 is fully compatible with the Open Database Connectivity standard (ODBC). 1-2-3 uses 32-bit ODBC drivers to connect to external database tables. ODBC drivers allow 1-2-3 to read data from and send data to an external database.

1-2-3 uses ODBC drivers when you:

- Open a database file with the File - Open command.
- Save a range as a database table with the File - Save As command.
- Create a query table from an external database table with the Create - Database - Query Table command.
- Connect to or create an external database table with the Data Query Add-In (DQA), LotusScript, or macro commands.

Installing and configuring ODBC drivers

ODBC drivers must be installed and configured for each data source you want to open. A data source gives the location of the data you want to access, such as:

- The directory in which a set of dBASE files are located.
- An SQL Server database and the server where it is located.

1-2-3 installs and configures some ODBC drivers when you install 1-2-3. The table below lists the drivers that are available with 1-2-3, whether the driver is installed by default with 1-2-3, and whether you must configure the driver. (1-2-3 configures some drivers the first time you use a data source.)

ODBC database driver	Installed by default	Configured automatically
dBASE	Yes	Yes
Paradox	No	Yes
SQL Server 4.x	No	Yes
SQL Server 6	No	No
Sybase	No	No
Lotus Notes	No	No
Oracle	No	No
Informix	No	No
Text	No	No

Note Depending on the type of driver you select, you may also need to add the appropriate settings to the LOTUS.BCF file in order to use the driver with 1-2-3. The Lotus Installation process automatically enters these settings for all the drivers in the table above except the Oracle and Informix drivers, which are available in the Lotus Installation process with a customized installation of Lotus Approach.

Getting Help on ODBC drivers

For more information, see:

- [Installing ODBC drivers.](#)
- [Configuring ODBC drivers.](#)

For information about a specific ODBC driver, look for these Help files in your WIN95\SYSTEM directory. To open the Help file, double-click it in the Windows Explorer. (The Help button in the ODBC Administrator also gives information about ODBC drivers, although the driver versions may be different from the ones installed with 1-2-3.)

ODBC driver	Help file
General information	IVDRV09.HLP
dBASE	LODBF09.HLP
Paradox	LOIDP09.HLP
SQL Server 4.x	LOSS09.HLP
SQL Server 6	LOSS609.HLP
Sybase	LOSYB09.HLP

Oracle	LOOR709.HLP
Informix	LOINF509.HLP LOINF709.HLP
Text	LOTXT09.HLP

Note For information about the ODBC driver for Lotus Notes, use Notes to open the NotesSQL.NSF database in your WIN95\SYSTEM directory.

{button ,AL('H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_WORKING_WITH_ODBC_DATA_SOURCES_OVER',0)} [See related topics](#)

Installing ODBC drivers

1-2-3 comes with Open Database Connectivity standard (ODBC) database drivers that let you work with external database tables. Whether these drivers are installed on your computer depends on the choices you made when you installed 1-2-3. If you chose Default installation, 1-2-3 installed the dBASE driver. To install other ODBC drivers, you must use a customized install.

1-2-3 works with Lotus Approach to create a query table from an external database table. 1-2-3 and Approach are installed together when you install 1-2-3. The ODBC drivers are installed with either 1-2-3 or Approach, or both.

Want the big picture? See [Overview: ODBC drivers](#).

Tip Print this topic so you can refer to these instructions while running Install. (Install requires that you exit from 1-2-3 if it is open.)

1. Insert the 1-2-3 or SmartSuite Install CD-ROM or first disk in the disk drive.
If you install 1-2-3 over a network, open the directory containing the Install program.
2. From the Start menu, choose Run, type x:\install.exe (where x is the drive containing the Install disk), and click OK.
The installation program begins. Answer all initial questions asked.
3. In the Install Options dialog box, select "Customize features - Manual Install," and then click Next.
4. In the "Select 1-2-3 Features to Customize" dialog box, select 1-2-3 and click Customize.
5. Click the Shared Data Access tab, and select the database type(s) you want to work with.
6. Deselect all other choices from all other tabs and then click OK.
7. In the "Select 1-2-3 Features to Customize" dialog box, select Approach and click Customize.
8. Click the PowerKeys tab, and select the database type(s) you want to work with.
9. Deselect all other choices from all other tabs and then click OK.
10. Click Next to continue, finish answering all other installation questions, and then click Yes to copy your files.

If you need additional Help while installing the files, click Help in the Install dialog boxes.

Note For all ODBC drivers except dBASE, SQL Server 4.x, and Paradox, you need to configure the ODBC drivers to create a data source for each database you want to open. For more information, see [Configuring ODBC drivers](#).

{button ,AL('H_123_INSTALLING_ODBC_DRIVERS_DETAILS',1)} [See details](#)

{button ,AL('H_123_CONFIGURING_ODBC_DRIVERS_STEPS;H_123_ODBC_DRIVERS_OVER;H_123_WORKING_WITH_ODBC_DATA_SOURCES_OVER',0)} [See related topics](#)

Details: Installing ODBC drivers

Finding the driver types

When you install 1-2-3, you also install Lotus Approach. Some of the ODBC drivers are installed by customizing the 1-2-3 installation and some are installed by customizing the Approach installation.

<u>ODBC driver</u>	<u>Installed by</u>
dBASE	1-2-3
Paradox	1-2-3, Approach
SQL Server 4.x	1-2-3, Approach
SQL Server 6	1-2-3, Approach
Lotus Notes	1-2-3, Approach
Sybase	1-2-3, Approach
Text	1-2-3
Oracle	Approach
Informix	Approach

{button ,AL('H_123_INSTALLING_ODBC_DRIVERS_STEPS',1)} [Go to procedure](#)

Configuring ODBC drivers

1-2-3 comes with Open Database Connectivity standard (ODBC) database drivers that let you work with external database tables. Before you can work with an external database table, you need to configure it as an available data source using the appropriate ODBC driver. You can configure more than one data source that uses the same driver.

The current release of 1-2-3 installs the Intersolv ODBC Data Source Administrator version 2.12 unless you already have a later version of ODBC installed on your computer.

Note 1-2-3 automatically configures the ODBC drivers the first time you connect to a database table in one of the following database types: dBASE, Paradox, and SQL Server 4.x.

Want the big picture? See [Overview: ODBC drivers](#).

1. In the Windows 95 taskbar, click Start.
2. Choose Settings - Control Panel.
3. To start the ODBC Data Source Administrator, double-click the 32bit ODBC icon.

You can configure an existing data source or add a new data source.

Tip Click Help in the ODBC Data Source Administrator at any time for more information. The following instructions are for Intersolv ODBC version 2.12. If you have a later version installed (for example, the ODBC Data Source Administrator window has tabs), click Help for instructions.

4. Do one of the following:
 - To add and configure a new data source, click Add, select the driver for which you want to set up a data source from the list of installed drivers, then click OK.
 - To configure an existing data source, select the data source in the User Data Source (Driver) list in the Data Source dialog box, then click Setup.

The ODBC Driver Setup dialog box for the driver you selected appears.

5. Specify the required data source information, then click OK.
6. (Optional) To configure the driver so that it is visible to anyone who logs onto the system, click System DSN, specify the required information, then click Close.
7. Click Close to write the settings to the ODBC.INI section of the registry.

Note If a "low memory" error message appears, your system may lack some necessary files. For more information, see [Details](#).

{button ,AL('H_123_CONFIGURING_ODBC_DRIVERS_DETAILS',1)} [See details](#)

{button ,AL('H_123_ODBC_DRIVERS_OVER;H_123_INSTALLING_ODBC_DRIVERS_STEPS;H_123_WORKING_WITH_ODBC_DATA_SOURCES_OVER',0)} [See related topics](#)

Details: Configuring ODBC drivers

The values you specify in the Setup dialog box become the defaults for your connection to the data source. You can change the defaults by configuring your data source again. You can also override the defaults by connecting to the data source using a connection string.

Note Depending on the type of driver you select, you may also need to add the appropriate settings to the LOTUS.BCF file in order to use the driver with 1-2-3. For example, you must take this step for the Oracle and Informix drivers; the Lotus Installation process automatically enters these settings for the other drivers available with 1-2-3.

Other files you need to set up external data connections

Once you install the appropriate files (with their corresponding registry entries), you can work with the dBASE IV, Paradox, and SQL Server 4.2 and 6.0 sources.

- To work with the Microsoft SQL Server versions 4.2 and 6.0, you need to have the following files on your system:
NTWDBLIB.DLL
DBMSSOCN.DLL
DBMSPXN.DLL
DBNMP3.DLL
DBNMPNTW.DLL
- For connections to Sybase System 10 and 11, the client version of Sybase must be installed on your computer.
- To work with Paradox files, Borland Database Engine must be installed on your computer. Borland Database Engine comes with Paradox 7, or you can purchase it separately.

After you complete the setup for your driver, you can access it. If you attempt to access an installed driver without completing the setup, you will get the error message "ODBC driver could not be loaded. You may be low on memory and need to quit a few applications." Disregard this message (low memory is not the cause), and, instead, make sure that all files are installed and that you completed the setup properly.

Data external connection to Lotus Notes

The Lotus Notes ODBC driver will not function with any release of Notes prior to Notes 4.0. Consequently, trying to access any Notes 3.x file will have unpredictable results. For more information, use Notes to open the NotesSQL.NSF database in your WIN95\SYSTEM directory.

Using transaction-based ODBC drivers

If you are using any of the transaction-based ODBC drivers that come with 1-2-3 (such as SQL Server 4.2, 6.0, or Sybase System 10), make sure Two Phase Commit is enabled for your registered Data Source Name (DSN). If you receive a message reporting that SQL_AUTOCOMMIT is false, you need to enable Two Phase Commit for your registered DSN. Open the 32bit ODBC icon in the Windows Control Panel and use Setup (Advanced Setup for some drivers) to select the Two Phase Commit option.

Updating data in a transaction-based external database table

When updating data in a transaction-based database such as SQL Server, the records you are updating must contain unique entries. Note that SQL Server drivers do not use the Float data type to determine uniqueness. If you receive an error message reporting that "... no columns are useable for selecting a unique row," you need to include a unique field of a data type other than Float in the query table (or output range).

Note To update a transaction-based database using the Data Query Add-In (DQA), macros, or LotusScript, the Allow Updates setting must be turned on using the Query - Set Options command, the macro command {QUERY-OPTIONS "allow updates";"on"} , or the LotusScript statement [queryname].AllowUpdates=True.

Updating external SQL Server or Sybase database tables

You may get a "connection timed out" error message when updating or deleting records in an external SQL Server or Sybase database table. The message may appear because the found set is too large, the query criteria are too complex, or because of heavy network traffic.

If the found set is large, reduce the size of the found set and try the update again. If the query criteria are complex and include 1-2-3 @functions, simplify the criteria and then try updating or deleting again.

If network traffic is heavy, you can ask your system administrator to change the amount of time that 1-2-3 is set to wait for the network to respond before issuing a timeout error. This is controlled by the setting "UpdateTimeout=" in the ODBC configuration file for the driver (LOSS609.INI for SQL Server 6.0 and LOSS09.INI for SQL Server 4.2), located in the WIN95 or WINNT directory.

{button ,AL('H_123_CONFIGURING_ODBC_DRIVERS_STEPS',1)} [Go to procedure](#)

Working with ODBC data sources

1-2-3 and Approach are fully compatible with the Open Database Connectivity standard (ODBC), giving you access to database tables from the following types of data sources: dBASE, Paradox, SQL Server 4.x, SQL Server 6, Sybase, Informix, Oracle, and text.

Want the big picture? See [Overview: ODBC drivers](#).

Supported data types

1-2-3 supports most data types, or field types, for the data sources listed above. Data types that are not supported by 1-2-3 are converted to a 1-2-3 data type. For example, fields in the ODBC field types Big Int, Tiny Int, Small Int, Real, Numeric, Decimal, Integer, Double, and Float are converted to numeric fields.

Restrictions on field names

The maximum length of a field name depends on whether the ODBC driver supports the data type of the field. In the following table, ODBC data types are given in parentheses.

Data type (ODBC data types)	Driver supports data type	Driver does not support data type
Text (Char or Var Char)	30 or limit of driver	(Always supported)
Numeric (Bit Int, Tiny Int, Small Int, Real, Numeric, Decimal, Integer, Double, or Float)	30 or limit of driver	30 or limit of driver; stored as text
Memo (Long Var Char)	30 or limit of driver	Field is disabled
Boolean (Bit)	30 or limit of driver	(30 or limit of driver) - 7; stored as text
Date (Date)	30 or limit of driver	(30 or limit of driver) - 6; stored as timestamp (if supported) or as text
Time (Time)	30 or limit of driver	(30 or limit of driver) - 6; stored as timestamp (if supported) or as text
PicturePlus (Long Var Binary)	(30 or limit of driver) - 6	Field is disabled

If two lengths are given for a field name (such as "30 or limit of driver"), the maximum can only be the shorter of the two lengths.

Permitted characters: The first character in a field name must be a letter. After that, the name can have letters and whole numbers.

Characters not to use: Spaces and ODBC keywords

Restrictions on field lengths

You must specify a field length for text fields. Other fields are fixed in length or do not require a specified length.

Maximum length of text fields: The limit of the ODBC driver. Most drivers have a limit of 255.

Limits on tables, records, and fields

In an ODBC data source, the size of the table and the number of records in it are limited only by disk space. You can have up to 255 tables open at a time.

The limits on record size, fields per record, fields in a sort, and memo and picture fields are determined by the database application for the ODBC data source. For more information, consult the documentation for the ODBC

driver or for the database application.

Getting Help on ODBC data sources

For information about a specific ODBC driver, look for these Help files in your WIN95\SYSTEM directory. To open the Help file, double-click it in the Windows Explorer.

ODBC driver	Help file
General information	IVDRV09.HLP
dBASE	LODBF09.HLP
Paradox	LOIDP09.HLP
SQL Server 4.x	LOSS09.HLP
SQL Server 6	LOSS609.HLP
Sybase	LOSYB09.HLP
Oracle	LOOR709.HLP
Informix	LOINF509.HLP LOINF709.HLP
Text	LOTXT09.HLP

{button ,AL('H_123_CONFIGURING_ODBC_DRIVERS_STEPS;H_123_INSTALLING_ODBC_DRIVERS_STEPS;H_123_ODBC_DRIVERS_OVER;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} [See related topics](#)

Overview: 1-2-3 Preferences

1-2-3 preferences are settings that control the display and behavior of all new workbook files and of the current and future sessions of 1-2-3. These default settings take effect automatically whenever you start 1-2-3.

You can change the following settings in the 1-2-3 Preferences dialog box:

General

Lets you set how many recently used files 1-2-3 lists at the bottom of the File menu, the sort order, and how 1-2-3 interprets and displays dates. You can also change defaults for undo, drag and drop, autoexecute macros, the startup window size, and some of 1-2-3's automatic features such as SmartFill and SmartLabels.

New Workbook Defaults

Lets you set text format defaults and column and row sizes that 1-2-3 uses for new workbook files created without a SmartMaster. Also lets you set the default file type displayed in the Save As dialog box for all new workbooks.

File Locations

Lets you specify paths for workbook files, SmartMaster templates, automatically opened files, and add-in files.

Recalculation

Lets you change the recalculation setting from manual to automatic, the number of recalculation iterations, and the recalculation order 1-2-3 uses. These settings are stored in the current workbook.

Classic Keys

Sets which key brings up the 1-2-3 Classic menu and controls the behavior of the TAB and ENTER keys.

```
{button ,AL('H_CHANGING_INTERNATIONAL_SETTINGS_OVER;H_123_SETTING_OPTIONS_DATES_STEPS;H_123_SETTING_A_DEFAULT_FILE_TYPE_STEPS;H_SETTING_123_OPTIONS_STEPS;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_FILE_LOCATIONS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_SETTING_TAB_AND_ENTER_KEY_BEHAVIOR_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;';0)} See related topics
```

Setting 1-2-3 options

The settings in the 1-2-3 Preferences dialog box (General tab) control the display and behavior of all new workbook files in current and future sessions of 1-2-3. These default settings take effect automatically whenever you start 1-2-3.

For a description of these options, see [Details: Setting 1-2-3 options.](#)

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the General tab in the dialog box.
3. Change any of the following default settings:
 - The number of recently used files listed on the File menu
 - The sort order
 - How 1-2-3 interprets and displays dates
 - Other options
4. Click OK.

{button ,AL('H_SETTING_123_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;
H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;
H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;H_123_SETTING_OPTIONS_DATES_STEPS',0)} [See related topics](#)

Details: Setting 1-2-3 options

Settings in the 1-2-3 Preferences dialog box (General tab)

Recently used files

- Specifies the number (0 to 10) of recently opened files to display at the bottom of the File menu.

Sort order

- Sorts words and numbers using the conventions of the country you select in the list. The list of available country sort orders depends on what country driver(s) you have installed. If you select "Generic International sorting" 1-2-3 sorts based on the operating system's regional (country) settings.

Dates

- (Default) Interpret entry of 2-digit years using a sliding window around the system date. This setting specifies how 1-2-3 interprets a date when you enter it using only 2-digits for the year (dd/mm/yy). When this option is checked, 1-2-3 uses the default sliding window (currently 80/20) set for Lotus SmartSuite to determine whether a date falls in the 20th or 21st century. For more information, see [1-2-3 and the year 2000](#).
- Interpret entry of 2-digit years as 20th century (1900-1999) -- This setting overrides the sliding window setting so 1-2-3 places all dates you enter with 2-digit years in the 20th century.
- Always display 4-digit years in dates -- Displays all dates with 4-digit years (whether you enter 2 or 4 digits for the year). When you deselect this option, 1-2-3 displays all dates with 2-digit years. Date formats in the InfoBox and status bar automatically change according to this setting. This setting only applies to years you enter as dates.

Note Changing from 2-digit to 4-digit years will make the dates wider, so some dates may display as *** (asterisks) until you widen the column. You may also need to adjust print ranges.

Other options

You can check (turn on) or uncheck (turn off) any of the following 1-2-3 options.

- Show Welcome dialog - Displays this dialog box when you start 1-2-3.
- Show New Workbook dialog -- Displays the New Workbook dialog box when you choose File - New Workbook, so you can select a SmartMaster. Otherwise, 1-2-3 creates a plain workbook file when you choose File - New Workbook.
- Maximize 1-2-3 window on startup
- Show warning when saving as .WK* file -- Displays a message warning you that saving to an older file format (.WK*) can result in the loss of data associated with new 1-2-3 features. For more information, see Details: Saving a new workbook.
- Run file Opened scripts, autoexecute macros -- Runs scripts that contain an Opened event, or autoexecute macros when you open files that contain these scripts or macros.
- Update links when opening workbooks -- Updates file [links](#) automatically when a workbook file is opened. When attempting to update an [OLE](#) link, if the application is not active, 1-2-3 starts the application.
- Drag and drop cells and sheets -- Lets you move, copy, clear, and fill cells and sheets using the mouse.
- Confirm overwrite for drag and drop -- Displays a message if dragging and dropping will write over existing data.
- Use [SmartFill](#) during data entry -- 1-2-3 will make suggestions for the current cell based on what you typed in previous cells and what you started typing.
- Use [SmartLabels](#) to enter formulas and apply formats -- Determines if 1-2-3 uses the set of SmartLabels like the word Total, to perform calculations when you type them in the sheet.
- Sort numbers before words
- Sort blank cells to bottom
- Beep on error -- Sounds your computer's bell when an error occurs.
- Undo -- Enables Undo so you can cancel your last command or action.

{button ,AL('H_SETTING_123_OPTIONS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;H_123_SETTING_OPTIONS_DATES_STEPS',0)} [See related topics](#)

Setting a default font and colors for new workbooks

Changes to these default settings will not take effect until you create a new workbook.

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the New Workbook Defaults tab in the dialog box.
3. Under Text format, select a font, point size, text color, and background color.
4. Click OK.

Note These defaults do not apply to workbooks created using a SmartMaster template.

{button ,AL('H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;',0)} [See related topics](#)

Details: Setting a default font and colors for new workbooks

You can't change the current workbook defaults, but you can change the current sheet defaults by choosing Sheet - Sheet Properties.

Using Windows defaults for text and background colors

When you select this option, 1-2-3 uses the text and background colors specified in the Windows Control Panel. For more information, see your Windows documentation.

{button ,AL('H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

Setting column and row defaults for new workbooks

Changes to these default settings will not take effect until you create a new workbook.

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the New Workbook Defaults tab in the dialog box.
3. To set column width in characters, under Column and row size, click the arrows or enter a number in the "Column width" box.
4. To set row height in points, under Column and row size, click the first button under "Row height," then enter a number or click the arrows to change the point size.
5. To set row height to the default font size, under Column and row size, select "Fit default font."
6. Click OK.

Note These defaults do not apply to workbooks created using a SmartMaster template.

{button ,AL('H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_DETAILS',1)} [See details](#)
{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;',0)} [See related topics](#)

Details: Setting column and row defaults for new workbooks

You can't change the current workbook defaults, but you can change the current sheet defaults by choosing Sheet - Sheet Properties.

Setting the column width in characters

1-2-3 sizes columns in whole-character increments from 1 to 240 characters.

The effect of column width on values

When a column is too narrow to display an entire value as formatted, the value appears in Scientific format, or as a line of *** (asterisks). To display the value, you must widen the column to at least one character wider than the width of the formatted value.

The effect of column width on labels

If a label is longer than the cell it occupies and the cells to the right are blank, 1-2-3 displays the label across the blank cells. If the cells to the right contain data, 1-2-3 displays only the part of the label that fits in the cell where it is entered. To see the complete label, you must widen the column or wrap the text in the cell.

Setting the default row height in points

1-2-3 sizes rows in points from 1 to 255 points. When you set the row height to a specific point size, 1-2-3 will use that size unless you enter a taller font in the row. 1-2-3 always expands to the tallest font in the row regardless of the default row height setting.

{button ,AL('H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS',1)} Go to procedure

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;H_SIZING_COLUMNS_STEPS;',0)} See related topics

Setting file locations

You can set the default directories for workbooks, SmartMaster templates, automatically opened files, and add-in files.

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the File Locations tab in the dialog box.
3. Specify directories (folders) for any of the file types listed.
4. To view the directories to choose from, click Browse.
5. Click OK.

{button ,AL('H_SETTING_FILE_LOCATIONS_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;',0)} [See related topics](#)

Details: Setting file locations

1-2-3 Preferences dialog box (File Locations tab)

- Workbook files -- Specifies the default directory for opening and saving workbook files. You must specify a directory for workbook files.
- SmartMaster templates -- Specifies the directory where 1-2-3 looks for a list of SmartMaster templates.
- Automatically opened files -- Specifies the directory from which 1-2-3 automatically opens workbook and add-in files. If you do not specify a directory, 1-2-3 does not automatically open any files.
- Add-ins -- Specifies the default directory for add-in files. When you choose File - Add-Ins, 1-2-3 lists the files that are in this directory.

{button ,AL('H_SETTING_FILE_LOCATIONS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

Setting sorting options

The sorting options determine the order in which 1-2-3 sorts numbers, words, and blank cells.

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the General tab in the dialog box.
3. To change the country sort order, select a country from the "Sort order" list.
4. Under Other options, set how 1-2-3 sorts numbers, words and blank cells.
5. Click OK.

{button ,AL('H_SETTING_SORTING_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_SETTING_USER_NAME_AND_STARTUP_OPTIONS_STEPS;H_CHANGING_INTERNATIONAL_SETTINGS_OVER;',0)} [See related topics](#)

Details: Setting sorting options

Sorting blank cells

If you select "Sort blank cells to the bottom," blank cells always sort to the bottom, regardless of the sort order (ascending or descending).

Sort order

1-2-3 sorts words and numbers using the conventions of the country you select in the "Sort order" list. The list of available country sort orders depends on what country driver(s) you have installed. If you select "Generic International" 1-2-3 sorts based on the operating system's regional (country) settings.

Related SmartIcons



Sorts a range in ascending order (A-Z, 1 to 10)



Sorts a range in descending order (Z -A, 10 to 1)

{button ,AL('H_SETTING_SORTING_OPTIONS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

Changing international settings

1-2-3 sorts and displays numbers, currencies, times, and dates based on defaults from regional settings (country settings) in the operating system. To change defaults for Windows 95, choose Start - Settings - Control Panel and open Regional Settings.

Setting country sort order

1-2-3 uses the operating system's settings to sort if the 1-2-3 setting is "Generic International" in the 1-2-3 Preferences dialog box (General tab). To override the operating system's sorting defaults, use File - User Setup, choose 1-2-3 Preferences, and then select a country instead of the generic setting.

Setting international date and time defaults

1-2-3 uses the operating system settings for certain date and time formats, called international date and time formats. These are marked with (System) in the table of available date formats in [Details: Entering dates](#).

Setting number and currency defaults

For both Comma and Currency number formats, 1-2-3 uses either parentheses or a minus sign, based on the negative number settings from the operating system's regional defaults. 1-2-3 also uses the operating system defaults for the decimal, thousands, and argument separator characters.

Macro compatibility and international defaults

Some macros written for previous versions of 1-2-3 may no longer return the proper international settings because of changes in the operating system.

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;H_SETTING_SORTING_OPTIONS_STEPS;H_CHANGING_THE_CURRENCY_SYMBOL_DETAILS;H_SETTING_A_DEFAULT_NUMBER_FOR MAT_STEPS;',0)} [See related topics](#)

Setting TAB and ENTER key behavior

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the Classic Keys tab in the dialog box.
3. Under TAB and ENTER keys, select an option.
4. Click OK.

{button ,AL('H_SETTING_TAB_AND_ENTER_KEY_BEHAVIOR_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS;',0)} [See related topics](#)

Details: Setting TAB and ENTER key behavior

Options: 1-2-3 Preferences dialog box (Classic Keys tab)

You can set how the TAB and ENTER keys work.

- TAB moves right one screen, ENTER confirms -- After you type data in a cell, pressing TAB confirms the cell entry and moves the cell pointer right the number of columns currently visible in the sheet. Pressing ENTER confirms the entry in the current cell without moving the cell pointer.
- TAB moves right one cell, ENTER confirms and moves down -- After you type data in a cell, pressing TAB confirms the cell entry and moves the cell pointer right to the next cell. Pressing ENTER confirms the cell entry and moves the cell pointer down to the next cell.

{button ,AL('H_SETTING_TAB_AND_ENTER_KEY_BEHAVIOR_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

Changing the 1-2-3 Classic menu key

You can change the key you use to display the Classic menu. You can also turn off the display of the Classic menu.

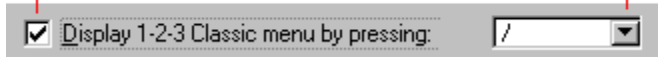
1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.



2. Click the Classic Keys tab in the dialog box.
3. Do one of the following:
 - To change the Classic menu key, select a symbol from the "Display 1-2-3 Classic menu by pressing" list.
 - To turn off display of the 1-2-3 Classic menu, deselect "Display 1-2-3 Classic menu by pressing."

Turns off the Classic menu

Changes the symbol



☒ Display 1-2-3 Classic menu by pressing: /

4. Click OK.

{button ,AL('H_DISPLAYING_THE_123_CLASSIC_MENU_DETAILS',1)} [See details](#)

{button ,AL('H_123_PREFERENCES_OVER;H_SETTING_123_OPTIONS_STEPS',0)} [See related topics](#)

Details: Changing the 1-2-3 Classic menu key

When the 1-2-3 Classic menu is turned off, pressing / (slash) or < (less-than symbol) enters the appropriate character in the current cell; however, you can continue to use your keystroke macros.

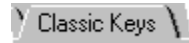
Wysiwyg menu commands

You can't use any : (colon) commands to perform tasks in the current version of 1-2-3, except in keystroke macros. If you press : (colon) when 1-2-3 is in Ready mode, 1-2-3 enters a colon in the current cell.

{button ,AL('H_DISPLAYING_THE_123_CLASSIC_MENU_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

1-2-3 Preferences dialog box (Classic Keys tab)



Use the Classic Keys tab to control how the TAB and ENTER keys work, and to control display of the 1-2-3 Classic menu.

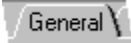
Choose a task

[Setting TAB and ENTER key behavior](#)

[Changing the 1-2-3 Classic menu key](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

1-2-3 Preferences dialog box (General tab)



The settings in the 1-2-3 Preferences dialog box (General tab) control the display and behavior of all new workbook files in current and future sessions of 1-2-3. These default settings take effect automatically whenever you start 1-2-3.

Choose a task

[Setting 1-2-3 options](#)

[Setting sorting options](#)

[Setting options for dates](#)

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

1-2-3 Preferences dialog box (New Workbook Defaults tab)

Use the New Workbook Defaults tab to set default font, colors, column width, row height, and the file type for saving new files.

These defaults affect only subsequent new workbooks; to change current sheet defaults, select the sheet and choose Sheet - Sheet Properties.

Choose a task

[Setting a default font and colors for new workbooks](#)

[Setting column and row defaults for new workbooks](#)

[Setting a default 1-2-3 file type](#)

{button ,AL('H_123_PREFERENCES_OVER','0')} [See related topics](#)

1-2-3 and the year 2000

When you enter a date using only 2 digits to represent the year (for example, 4/2/05), 1-2-3 needs a way to interpret the date as being in either the 20th or the 21st century. By default, this version of 1-2-3 is using an 80/20 sliding window to interpret dates when you enter only 2 digits for the year.

What is a sliding window?

A sliding window is a time frame used to interpret dates that you enter with 2-digit years. All 2-digit years fall somewhere within a 100 year window that moves forward each year.

The 80/20 sliding window is split at the current year (determined by the system date on your computer) so the window begins 80 years before the current year and ends 19 years after the current year.

If the current year is 1999, the following example illustrates how the 80/20 window looks.



In 1999, all dates you enter with 2-digit years from 19 to 99 will equal 1919 to 1999. All dates you enter with years 00 to 18 will equal 2000 to 2018. To enter a date that falls outside of this window (before 1919 or after 2018), you must enter a 4-digit year such as 2022.

Turning off the sliding window in 1-2-3

If you do not want 1-2-3 to use the 80/20 sliding window to interpret dates with 2-digit years, you can turn off this feature in the 1-2-3 Preferences dialog box. You can set 1-2-3 to always interpret these dates as being in the 20th century. See [Setting options for dates](#).

Changing the 80/20 sliding window setting

You can change the 80/20 default setting for SmartSuite by changing a setting in the Windows registry. For more information, see [Lotus SmartSuite and the year 2000](#).

Entering and displaying 4-digit years in dates

To make sure you get the results you want, you can enter and display dates with the year as 4 digits in 1-2-3.

If you enter the year as 4 digits, 1-2-3 will always use the date you entered. If you display dates with the year as 4 digits, you may need to make some adjustments in the sheet.

- You may need to widen columns that contain dates. If you display 4-digit years in dates (for example, 4/10/1922), 1-2-3 will display asterisks (***) if the column is not wide enough to display the entire date.
- You may also need to adjust print ranges to accommodate wider columns.

@Functions and dates

If you enter a 2-digit year in @DATE, 1-2-3 always interprets the year as falling in the 20th century (1900 to 1999).

By default, @functions that include [text arguments](#) to specify dates (for example, @DATEVALUE) use the sliding window setting to determine the century in which a 2-digit year falls.

Macros and scripts with the year 2000

If years are stored as separate values in a file and macros or scripts interpret the dates as they run, the sliding window rules will apply to those values when only 2 digits are stored for the year.

Dates in 1-2-3 97 and 1-2-3 for OS/2 Warp 4

1-2-3 97 and 1-2-3 for OS/2 Warp 4 use a 49/50 fixed window to interpret dates you enter with 2-digit years. If you enter 00-49 for the year in a date, the date falls between the year 2000 and 2049. If you enter 50-99 for the year, the date falls between 1950 and 1999.

{button ,AL('H_123_SETTING_OPTIONS_DATES_STEPS;H_ENTERING_DATES_STEPS;H_FUNC_DATE;H_FUNC_DATEVALUE;')} [See related topics](#)

Setting options for dates

The date options let you control how 1-2-3 stores and displays a date if you enter only 2 digits for the year (for example, 5/11/08). 1-2-3 uses a sliding window to interpret whether the year falls in the 20th or 21st century.

For more information, see [1-2-3 and the year 2000](#).

To set options for dates,

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.
2. Click the General tab in the dialog box.
3. Under Dates, choose one of the following:
 - (Default) Interpret entry of 2-digit years using sliding window around system date
 - Interpret entry of 2-digit years as 20th century (1900 - 1999)
4. (Optional) Choose to always display 4-digit years in dates.
5. Click OK.

Notes

- To make sure you get the results you want, you can always enter and display the year as 4 digits.
- Displaying dates with 4 digits for the year will make dates wider, so some dates may display as *** (asterisks). Widen the column to display the date instead of asterisks. You may also need to adjust some print ranges.
- You can display dates in a variety of formats that include 2-digit and 4-digit years.

{button ,AL('H_ENTERING_DATES_STEPS;H_FORMATTING_NUMBERS_STEPS;H_123_YEAR_2000_OVER;H_123_TROUBLESHOOTING_YEAR_2000_OVER','0')} [See related topics](#)

Setting a default 1-2-3 file type

You can change the default file type 1-2-3 uses when you save a new file.

1. From the File menu, choose User Setup, and then choose 1-2-3 Preferences.

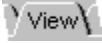


2. Click the New Workbook Defaults tab in the dialog box.
3. Next to "Save as type:" choose the type of file you want 1-2-3 to use as the default.
4. Click OK.

When you save a new file, 1-2-3 displays this type of file as the default in the Save As dialog box.

{button ,AL('H_123_PREFERENCES_OVER;',0)} [See related topics](#)

Workbook Properties dialog box (View tab)



Use the View tab to

- Set defaults for showing and hiding elements of the workbook
- Set the custom zoom scale for the workbook
- Display a command on the View menu for designing and running ActiveX controls and JavaBeans

For descriptions of specific settings, see [Details: Setting view preferences for workbooks.](#)

Choose a task

[Setting view preferences for workbooks.](#)

[Setting the custom view scale](#)

[Hiding or showing sheet tabs](#)

{button ,AL('H_HIDING_SHEETS_STEPS','0')} [See related topics](#)

Setting view preferences for workbooks

You can set view preferences for the current workbook and for subsequent new workbooks. For more information on specific settings, see [Details: Setting view preferences for workbooks](#).

1. From the View menu, choose Set View Preferences.



2. Under Show in workbook, select the elements of the workbook you want to show; deselect the elements you want to hide.
3. To change the color of grid lines, select a color.
4. To display a command on the View menu for working with ActiveX controls and JavaBeans, click "Display menu command for designing ActiveX and Java controls."
5. To change the default display size of the sheet, click the arrows or enter a number in the "Custom zoom %" box.
6. (Optional) To specify these settings as the [default settings](#), click Make Default for New Workbooks.
Note Clicking Make Default for New Workbooks does not affect the view settings in other existing workbooks, and these settings do not apply to new workbooks you create using a SmartMaster template.
7. Click OK.

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_WORKBOOKS_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_THE_VIEW_SCALE_STEPS;H_SETTING_A_CUSTOM_VIEW_SCALE_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS;H_HIDING_OR_SHOWING_TABS_STEPS;',0)} [See related topics](#)

Details: Setting view preferences for workbooks

Options: Workbook Properties dialog box (View tab)

Show in workbook

- Sheet frame -- Turns the sheet frame on or off.
- Charts, maps, and drawings -- Determines whether graphic objects (charts, maps, drawings, text blocks, buttons, pictures, and embedded objects) are hidden. Hidden graphic objects do not print.
Note To display but not print graphic objects, use File - Preview & Page Setup (Include tab).
- Formula markers -- Determines whether formula markers are shown in cells containing formulas.
- Cell comment markers -- Determines whether cell comment markers are displayed in cells containing comments.
- Version names and borders -- Determines whether version borders and names are displayed. Deselecting this option removes any names and borders currently displayed and sets the default option for new versions to not display names and borders. You can redisplay the names and borders of individual versioned ranges by using Range - Version - Version Properties.
- Datalink table borders -- Displays or hides borders for all datalink tables in the current file.
- Grid lines -- Determines whether grid lines are displayed for all sheets in the current workbook, and sets the color of grid lines. The default color for grid lines is 25% gray.

Note Workbook view preferences for the sheet frame, grid lines, and graphic objects can be changed for an individual sheet by using Sheet - Sheet Properties (View tab).

- Sheet tabs -- Determines whether sheet tabs and the New Sheet button are displayed in the current workbook.
- Scroll bars -- Determines whether scroll bars are displayed in the current workbook.
- Manual page breaks -- Determines whether page breaks you set are displayed in the current workbook.
- Automatic page breaks -- Determines whether print range borders and page breaks set by 1-2-3 are displayed in the current workbook.

Note Even if page breaks are not displayed, 1-2-3 prints according to the page breaks.

Display menu command for designing ActiveX and Java controls

Displays or hides a command on the View menu for designing and running custom applications using ActiveX controls and JavaBeans.

Custom zoom %

Sets the custom view scale that appears on the Zoom to Custom Level command on the View menu. The default custom zoom scale is 87%.

Make Default for New Workbooks

Saves these settings as the default settings for all new workbooks.

1-2-3 saves these settings when you click OK in the Workbook Properties dialog box.

Note These defaults do not apply to workbooks created using a SmartMaster template.

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_WORKBOOKS_STEPS',1)} Go to procedure

Setting view preferences for a sheet

View preferences for a sheet override the corresponding view preferences you set for the workbook using View - Set View Preferences.

1. From the Sheet menu, choose Sheet Properties.



2. Click the View tab in the InfoBox.



3. Under Show in sheet, select one or more options.
4. To change the color of grid lines, select a color.
5. (Optional) To reset the view preferences in the selected sheet(s) to the workbook defaults, click Reset To Workbook Defaults.
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_THE_VIEW_SCALE_STEPS;H_SETTING_A_CUSTOM_VIEW_SCALE_STEPS;H_HIDING_OR_SHOWING_TABS_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_WORKBOOKS_STEPS;',0)}
[See related topics](#)

Details: Setting view preferences for a sheet

Options: Sheet InfoBox (View tab)

- Sheet frame -- Turns the sheet frame on or off.
- Grid lines -- Determines whether grid lines are displayed in the current sheet, and sets the color of grid lines. The default color for grid lines is 25% gray.
- Charts, maps, and drawings -- Determines whether graphic objects (charts, maps, drawings, text blocks, buttons, pictures, and embedded objects) are displayed in the sheet. Hidden graphic objects do not print.

Note To display but not print graphic objects, use File - Preview & Page Setup (Include tab).

- Reset To Workbook Defaults -- Returns view preferences for the sheet to the workbook defaults specified with View - Set View Preferences (View tab).

Related SmartIcons



Changes view preferences for the current workbook

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS',1)} [Go to procedure](#)

Changing the view scale

When you change the view scale, the display size changes for all sheets in the current workbook.

1. To change the view to a preset scale, choose View - Zoom to, and then select the percentage.
2. To change to the custom view scale, choose View - Zoom to Custom Level.

Note To set the custom view scale, use View - Set View Preferences. The default custom view scale is 87%.

{button ,AL('H_CHANGING_THE_VIEW_SCALE_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_A_CUSTOM_VIEW_SCALE_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS;',0)} [See related topics](#)

Details: Changing the view scale

Related SmartIcons



Displays the sheet at the custom view size



Displays the sheet at 25% of full size



Displays the sheet at 50% of full size



Displays the sheet at 75% of full size



Displays the sheet at 100% of full size



Displays the sheet at 200% of full size

{button ,AL('H_CHANGING_THE_VIEW_SCALE_STEPS',1)} [Go to procedure](#)

Setting the custom view scale

The custom view scale is the zoom percentage 1-2-3 uses when you choose View - Zoom to Custom Level.

1. From the View menu, choose Set View Preferences.

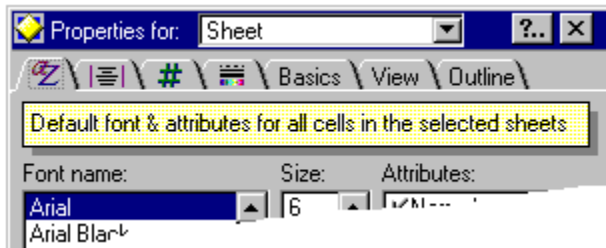


2. Click the arrows or enter a number in the "Custom zoom %" box.
The default custom view scale is 87%.
3. (Optional) Click Make Default for New Workbooks to make the zoom percentage the default for all workbooks created without using a SmartMaster.
4. Click OK.

{button ,AL('H_CHANGING_THE_VIEW_SCALE_STEPS;H_SETTING_A_CUSTOM_VIEW_SCALE_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS','0)} [See related topics](#)

Overview: Sheet defaults

You can change default settings for sheets using the InfoBox.



To set defaults for more than one sheet at a time, you can select multiple sheets, or group sheets together.

Setting sheet defaults

You can control the default settings listed below for the selected sheet.

Text styles

Sets font name, size, attribute, and color for text and numbers in the selected sheet.

Alignment

Sets horizontal and vertical alignment for contents of all cells in the selected sheet. You can also set all text to wrap in cells.

Number format

Sets the display for numbers in the selected sheet. You can select from format categories, such as date, time, and currency. You can also promote frequently used formats to the status bar.

Cell colors

Add a pattern, pattern color, background color, and text color to the selected sheet. You can also set negative values to display in red.

Basic settings

Sets selected sheet name, tab color, default column width, and default row height; and lets you hide and lock the selected sheet.

View preferences

Sets the display of the sheet frame, grid lines, and graphic objects. Lets you reset all settings to the workbook defaults.

Outline settings

Sets the orientation for an outline and the outline frame display for the selected sheet.

Overriding sheet defaults

You can override sheet defaults with local settings by using the status bar or the InfoBox to change font name, size, color, alignment, or number format of individual ranges, and the size of individual columns and rows. These local settings are saved with the sheet. You can't override view preferences or outline settings.

Tip To switch between setting sheet defaults and styling ranges, use the "Properties for" box in the InfoBox.

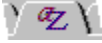
```
{button ,AL('H_SETTING_A_DEFAULT_ROW_HEIGHT_FOR_A_SHEET_STEPS;H_GROUPING_SHEETS_STEPS;  
H_SETTING_A_DEFAULT_COLUMN_WIDTH_FOR_A_SHEET_STEPS;H_SETTING_A_DEFAULT_FONT_FOR  
_A_SHEET_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;H_SETTING_A_DEFAULT_TEXT_  
ALIGNMENT_STEPS;H_SETTING_DEFAULT_CELL_COLORS_AND_PATTERNS_STEPS;H_SETTING_OUTLI  
NE_PROPERTIES_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS;',0)} See related  
topics
```

Setting a default font for a sheet

1. Choose Sheet - Sheet Properties.



2. Click the Text Format tab in the InfoBox.



3. Select a font, point size, attribute, and color.
4. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_A_DEFAULT_FONT_FOR_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_OVERVIEW_SHEET_DEFAULTS_OVER;H_SETTING_A_DEFAULT_TEXT_ALIGNMENT_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;H_SETTING_A_DEFAULT_FONT_FOR_ALL_WORKBOOKS_STEPS;H_SELECTING_SHEETS_STEPS;H_SETTING_A_DEFAULT_ROW_HEIGHT_FOR_A_SHEET_STEPS',0)} [See related topics](#)

Details: Setting a default font for a sheet**Troubleshooting**

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

{button ,AL('H_SETTING_A_DEFAULT_FONT_FOR_A_SHEET_STEPS',1)} [Go to procedure](#)

Setting a default alignment for a sheet

1. Choose Sheet - Sheet Properties.



2. Click the Alignment tab in the InfoBox.



3. Select a horizontal alignment.
4. Select a vertical alignment.

Note Data appears vertically aligned in a cell only when the row is taller than the cell contents.

5. To wrap text, select "Wrap text in cell."
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_A_DEFAULT_TEXT_ALIGNMENT_DETAILS',1)} [See details](#)

{button ,AL('H_SHEET_DEFAULTS_OVER;H_SETTING_A_DEFAULT_FONT_FOR_A_SHEET_STEPS;H_SELECTI
NG_SHEETS_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;','0)} [See related topics](#)

Details: Setting a default alignment for a sheet

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

{button ,AL('H_SETTING_A_DEFAULT_TEXT_ALIGNMENT_STEPS',1)} [Go to procedure](#)

Setting a default number format for a sheet

Changing the number format affects only how 1-2-3 displays numbers, not how 1-2-3 stores or calculates with the numbers.

1. Choose Sheet - Sheet Properties.



2. Click the Number Format tab in the InfoBox.



3. Select a format category.
4. Select a format from the "Current format" list.
5. (Optional) To promote a number format to the status bar, select "Show in Frequently Used list."
6. (Optional) Move, collapse, or close the InfoBox.

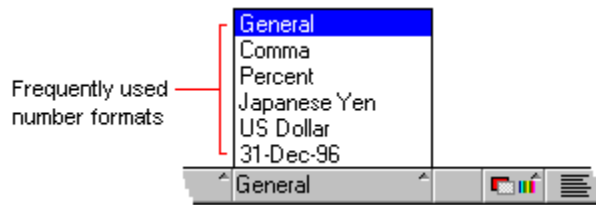
{button ,AL('H_SETTING_A_DEFAULT_NUMBER_FORMAT_DETAILS',1)} [See details](#)

{button ,AL('H_SHEET_DEFAULTS_OVER;H_SETTING_A_DEFAULT_FONT_FOR_A_SHEET_STEPS;H_SETTIN
G_A_DEFAULT_ALIGNMENT_STEPS;H_SELECTING_SHEETS_STEPS;H_CHANGING_THE_CURRENCY_SY
MBOL_STEPS;H_NUMBER_FORMATS_OVER;',0)} [See related topics](#)

Details: Setting a default number format for a sheet

Promoting a number format

Selecting "Show in Frequently Used list" promotes a format so that it appears when you click the Number format button in the status bar.



Displaying negative values in red

You can display negative values in red, for example, to show a debit. To display negative values in red for a selected range, use Range - Range Properties (Lines & Color tab).

Displaying zeros

If you deselect "Display zeros as," cells containing zeros appear blank. To change how zeros are displayed, enter a character in the "Display zeros as" box.

Displaying parentheses

Selecting "Parentheses" encloses all numbers in the sheet in parentheses, except numbers formatted as dates, times, or text.

Effect of column width on numbers

If you format a number and 1-2-3 fills the cell with *** (asterisks) or displays Scientific format, the column is not wide enough to display the number using the format you selected. To display the number, widen the column to one character wider than the length of the formatted number.

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

{button ,AL('H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS',1)} [Go to procedure](#)

Setting default colors and pattern for a sheet

You can set a default pattern, pattern color, background color, and text color.

1. Choose Sheet - Sheet Properties.



2. Click the Lines & Colors tab in the InfoBox.



3. Select a pattern and a pattern color.
4. Select a text color and a background color.
5. (Optional) Select "Negative values in red."
6. (Optional) Select "Use Windows default colors for text and background."
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_DEFAULT_CELL_COLORS_AND_PATTERNS_DETAILS',1)} See details

{button ,AL('H_SHEET_DEFAULTS_OVER;H_SETTING_A_DEFAULT_TEXT_ALIGNMENT_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;H_SELECTING_SHEETS_STEPS;H_SETTING_A_DEFAULT_FONT_F
OR_A_SHEET_STEPS;',0)} See related topics

Details: Setting default colors and patterns for a sheet

Selecting pattern and color options

You can change colors and patterns for all cells in a sheet. For more information on these settings, see [Details: Changing interior color and pattern.](#)

Displaying negative values in red

You can display negative values in red, for example, to show a debit. To display negative values in red for a selected range, use Range - Range Properties (Lines & Color tab).

Using Windows defaults for text and background colors

When you select this option, 1-2-3 uses the text and background colors specified in the Windows Control Panel. For more information, see your Windows documentation.

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

{button ,AL('H_SETTING_DEFAULT_CELL_COLORS_AND_PATTERNS_STEPS',1)} [Go to procedure](#)

Setting a default column width for a sheet

1. Choose Sheet - Sheet Properties.



2. Click the Basics tab in the InfoBox.



3. Click the arrows or enter a number in the "Default column width" box.
4. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_A_DEFAULT_COLUMN_WIDTH_FOR_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_SHEET_DEFAULTS_OVER;H_SELECTING_SHEETS_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS;H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS;',0)} [See related topics](#)

Details: Setting a default column width for a sheet

Setting the column width in characters

1-2-3 sizes columns in whole-character increments from 1 to 240 characters.

Effect of column width on values

When a column is too narrow to display an entire value as it is formatted, 1-2-3 fills the cell with *** (asterisks) or displays Scientific format instead of the value. To display the value, widen the column to one character wider than the length of the value as formatted.

Effect of column width on labels

If a label is longer than the cell it occupies and the cells to the right are blank, 1-2-3 displays the label across the blank cells. If the cells to the right contain data, 1-2-3 displays only the part of the label that fits in the cell where it is entered. To see the complete label you must widen the column or wrap the text in the cell. The reverse is also true when labels are right-aligned.

For more information see [Sizing columns](#) and [Wrapping data in a cell](#).

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

{button ,AL('H_SETTING_A_DEFAULT_COLUMN_WIDTH_FOR_A_SHEET_STEPS',1)} [Go to procedure](#)

Setting a default row height for a sheet

1. Choose Sheet - Sheet Properties.



2. Click the Basics tab in the InfoBox.



3. To set the default row height in points, click the arrows or enter a number in the "Default row height" box.
4. To make the default row height fit the default font size, select "Fit default font."
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SETTING_A_DEFAULT_ROW_HEIGHT_FOR_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_SHEET_DEFAULTS_OVER;H_SELECTING_SHEETS_STEPS;H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS;H_SETTING_COLUMN_AND_ROW_DEFAULTS_FOR_ALL_WORKBOOKS_STEPS;',0)} [See related topics](#)

Details: Setting a default row height for a sheet

1-2-3 accommodates the largest font entered in a row

As long as all text in a row is the same as, or smaller than, the default sheet row height, the row will remain at the default height. If you make any text in the row taller than the default, then the row height expands to accommodate it.

Default row height and "Fit default font"

When you select "Fit default font," the default row height is based on the size of the default font. If the default font size is larger than the default row height setting, then all rows will resize to fit the default font or the largest font currently entered in the row. You can override the default row height at any time by sizing the row.

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

{button ,AL('H_SETTING_A_DEFAULT_ROW_HEIGHT_FOR_A_SHEET_STEPS',1)} [Go to procedure](#)

Deleting graphic objects

You can delete drawings such as lines, arrows, rectangles, and ellipses. You can also delete charts, maps, text blocks, pictures, buttons, and embedded objects.

1. Select one or more object(s).
2. Choose Edit - Clear.



Tip You can also select the object(s) and press DEL.

{button ,AL(`H_DELETING_OBJECTS_DETAILS',1)} [See details](#)

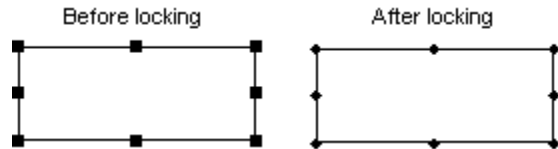
{button ,AL(`H_DELETING_DATA_IN_RANGES_STEPS;H_DELETING_OBJECTS_STEPS;H_USING_DRAGANDCLEAR_TO_DELETE_DATA_STEPS',0)} [See related topics](#)

Details: Deleting graphic objects

When you use Edit - Clear to delete data, 1-2-3 does not place the data on the Clipboard. As a result, you can't paste data that you have deleted using Edit - Clear. To restore the data to the same location, immediately use Edit - Undo. To clear data and paste it, use Edit - Cut and Edit - Paste.

Troubleshooting

You can't delete a locked graphic object. You can tell if an object is locked by its handles; the handles of a locked object are diamond-shaped rather than square. For more information, see [Overview: Protecting data](#).



{button ,AL('H_DELETING_OBJECTS_STEPS',1)} [Go to procedure](#)

Deleting data in ranges

You can delete the contents, styles, cell comments, borders, designer frames, and scripts associated with a range.

1. Select the range, collection, column or row.
2. Choose Edit - Clear.



3. Select the options you want to delete.
4. Click OK.

{button ,AL('H_DELETING_DATA_IN_RANGES_DETAILS',1)} [See details](#)

{button ,AL('H_DELETING_DATA_IN_RANGES_STEPS;H_DELETING_OBJECTS_STEPS;H_USING_DRAGANDC
LEAR_TO_DELETE_DATA_STEPS',0)} [See related topics](#)

Details: Deleting data in ranges

When you use Edit - Clear to delete data, 1-2-3 does not place the data on the Clipboard. As a result, you can't paste data that you have deleted using Edit - Clear. To restore the data to the same location, immediately use Edit - Undo. To clear data and paste it, use Edit - Cut and Edit - Paste.

Other ways to delete data

Instead of choosing Edit - Clear to delete cell contents, you can select the data, then press DEL. Doing so removes only cell contents and leaves styles, scripts, and cell comments intact. To delete a designer frame or range border, the range you delete must include the entire frame or border.

Note You can also right-click the cell and choose Clear.

Options for deleting

- Contents -- Deletes only the cell contents, leaving all styles intact.
- Styles and number format -- Leaves the cell contents intact and removes number formats, text attributes, alignment, background colors and patterns, and named styles. Also changes unprotected cells to protected.
- Borders and designer frames -- Removes borders, and designer frames if the range includes the whole frame.
- Cell comments -- Deletes cell comments.
- Script -- Deletes any scripts associated with the selected range.

Data you can't clear

You can't use Edit - Clear to delete protected data in a locked file, or a mixed range of protected and unprotected data. If you select a range or collection in which some of the data is protected, Edit - Clear will not clear any of the data.

How deleting affects formulas

If you delete a value that a formula refers to, some formulas will result in ERR. Any formulas that depend on this invalid formula also result in ERR.

Related SmartIcons



Deletes only the styles from a selected range



Deletes the contents in a selected range and copies them to the Clipboard



Pastes cell contents



Pastes cell styles



Cancels the last command or action

{button ,AL('H_DELETING_DATA_IN_RANGES_STEPS',1)} Go to procedure

Deleting data by dragging

You can use the mouse to delete data in a selected range, except for the top left cell. Drag and clear deletes the contents and styles, but not the cell comments, borders, designer frames, and scripts associated with any cell or range.



[Show me a QuickDemo](#)

1. Select the range you want to clear.
2. Position the mouse pointer at the bottom right corner of the range until the pointer displays four arrowheads.



3. Hold down the left mouse button and drag up and to the left to delete data in the range.

The pointer changes to look like this:



4. Release the mouse button.
5. (Optional) To delete the top left cell of the range, press DEL.

{button ,AL('H_USING_DRAGANDCLEAR_TO_DELETE_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_DELETING_DATA_IN_RANGES_STEPS;H_DELETING_OBJECTS_STEPS;',0)} [See related topics](#)

Details: Deleting data by dragging

When you use drag and clear to delete data, you can't delete the contents of the top left cell of the range. You can only use drag and clear to clear ranges; you can't use it to clear a 3D range, a collection, or a graphic object.

To delete the contents in a selected range without clearing the styles, use Edit - Clear or press DEL.

Note You can also right-click the cell and choose Clear.

Like Edit - Clear, drag and clear doesn't use the Clipboard or clear protected cells. As a result, you can't paste data that you have deleted using drag and clear. To restore the data to the same location, immediately use Edit - Undo. To clear data and paste it, use Edit - Cut and Edit - Paste.

Related SmartIcons



Lets you choose what to delete from a selected range



Deletes only the styles from a selected range



Deletes the contents in a selected range and copies them to the Clipboard



Pastes cell contents



Pastes cell styles



Cancels the last command or action

{button ,AL('H_USING_DRAGANDCLEAR_TO_DELETE_DATA_STEPS',1)} [Go to procedure](#)

Deleting styles

You can remove the styles from a range without deleting the contents.

1. Select the range, collection, column, or row.
2. Choose Edit - Clear Styles.



1-2-3 removes all styles associated with the range you selected.

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_TEXT_FORMAT_STEPS;H_REMOVING_NAMED_STYLES_STEPS;',0)} [See related topics](#)

Details: Deleting styles

Other ways to delete styles

Select the range or collection, choose Edit - Clear, and select one or more of these options:

Note You can also right-click the cell and choose Clear.

- Styles and number formats -- Leaves the cell contents intact and removes number formats, text attributes, alignment, background colors and patterns, and named styles. Also changes unprotected cells to protected.
- Borders and designer frames -- Removes borders, and designer frames if the range includes the whole frame.

Related SmartIcons



Removes bold, italics, and underlining from the selection



Changes the font, color, and attributes of data in ranges

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_STEPS',1)} [Go to procedure](#)

Choosing a file

Use this dialog box to find and select the file you want.

1. Select the computer, drive, and directory where the file resides.
2. Select the file name from the list.
3. Click OK.

{button ,AL('H_123_CHOOSE_FILE_DETAILS',1)} [See details](#)

Details: Choosing a file

Dialog box options

Look in

Displays the current directory and shows where it fits in the hierarchy on your computer. Below it is a list of the directories and files in the selected location. The files listed match the type selected from the "Files of type" list.

If the file you want resides on a network server or other remote computer, double-click Network Neighborhood, then double-click Entire Network to be sure you have access to the file location.

File name

Lets you select a file from the list or enter a path and file name containing a combined total of up to 259 characters.

Files of type

Lists the types of files you can open.

Open

Opens the specified file.

{button ,AL('H_123_CHOOSE_FILE_STEPS',1)} [Go to procedure](#)

Details: Browsing through files

Options: Browse dialog box

Look in

Displays the current directory and shows where it fits in the hierarchy on your computer. Below it is a list of the directories and files in the selected location. The files listed match the type selected from the "Files of type" list.

If the file you want resides on a network server or other remote computer, double-click Network Neighborhood, then double-click Entire Network to be sure you have access to the file location.

File name

Lets you select a file from the list or enter a path and file name containing a combined total of up to 259 characters.

Files of type

Lists the types of files you can open.

Title

Displays the title of the selected SmartMaster. The "Title" box appears in the Browse dialog box only after you click More SmartMaster Templates in either the New Workbook dialog box or the Welcome to 1-2-3 dialog box.

Open

Opens the specified file.

{button ,AL('H_BROWSING_FILES_STEPS',1)} Go to procedure

Browsing through files

Use the Browse dialog box to find and select the file you want.

1. Select the computer, drive, and directory where the file resides.
2. Select the file name from the list.
3. Click Open.

{button ,AL('H_BROWSING_FILES_DETAILS',1)} [See details](#)

Details: Combining data from different files

Types of files you can combine with a workbook

You can combine data, number formats, and style information from these file types with the current workbook:

- dBASE (.DBF)
- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Paradox (.DB)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)

{button ,AL('H_COMBINING_DATA_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_OPEN_FILE_REF',0)} [See related topics](#)

Combining data from different files

When you combine data from a file on disk with data in the current workbook, 1-2-3 changes data in the current sheet beginning at the current cell.

1. (Optional) Save the workbook before you combine data with it in case you don't like the results.
2. Select the cell where you want to begin combining data.
3. From the File menu, choose Open.



4. Select the file type of the file containing the data you want to combine.
5. Select the computer, drive, and directory where the file containing the data you want to combine resides.
6. Select the file name from the list.
7. Select "Combine with current workbook."
8. Click Combine.

If you selected a workbook file, specify the options for combining data in the Combine 1-2-3 File dialog box.

If you selected a text file, specify the text file format in the Text File Options dialog box.

{button ,AL('H_COMBINING_DATA_DETAILS',1)} See details

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_IMPORTING_A_PICTURE_STEPS;H_OPTIONS_OPEN_FILE_REF;H_SPECIFYING_A_FILE_OVER',0)} See related topics

Overview: Creating and opening files

When you start 1-2-3, the Welcome to 1-2-3 dialog box lets you choose whether to create a new workbook file or open an existing file. Once you're working in 1-2-3, you use File - New Workbook to create a new workbook file and File - Open to open existing files.

Note If you don't want to see the Welcome to 1-2-3 dialog box each time you start 1-2-3, use File - User Setup - 1-2-3 Preferences (General tab) to turn it off.

Creating new files

1-2-3 files are called workbooks. Each workbook contains one or more sheets in which you can enter, calculate, and analyze data. When you create a new workbook, you can either start with a blank workbook to build a spreadsheet from scratch or select a SmartMaster template to streamline your work.



[See related topics](#)

Using SmartMaster templates

1-2-3 comes with a variety of SmartMaster templates for common business and financial tasks such as creating budgets, expense reports, sales plans, and so on. Each template has built-in formulas, scripts, and formatting to give you a quick start on creating effective spreadsheets.



You can also customize existing SmartMaster templates or create your own SmartMaster templates.



[See related topics](#)

Working with existing files

The default file type in the current release of 1-2-3 is .123. You can open these file types:

- dBASE (.DBF)
- HTML File (.HTM*)
- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Microsoft Excel (.XLS, .XLT, .XLW)
- Paradox (.DB)
- Quattro Pro (.WQ1, .WB1, .WB2)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)

In addition, you can combine data or graphics from these file types with the current workbook:

- ANSI Metafile (.CGM)
- Bitmap (.BMP)
- dBASE (.DBF)
- GIF Image (.GIF)
- JPEG Image (.JPG, .JPEG)
- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Lotus 1-2-3 PIC (.PIC)
- Paradox (.DB)

- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)
- Windows Metafile (.WMF)

You can open and view more than one file at the same time. However, you can work in only one file at a time.

Use the Window menu commands to arrange open files or to create extra windows to view different parts of the same file.



[See related topics](#)

Creating a blank workbook

When you create a new workbook, 1-2-3 places it in a window and puts the cell pointer in cell A1.

1. From the File menu, choose New Workbook.



2. Click Create a Blank Workbook.

Note To keep a copy of the new workbook on disk, you must save the workbook before you close it or end the 1-2-3 session.

{button ,AL(`H_CREATING_A_BLANK_WORKBOOK_DETAILS',1)} [See details](#)

{button ,AL(`H_CREATING_AND_OPENING_FILES_OVER;H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Details: Creating a blank workbook

Naming new workbooks

1-2-3 supplies a temporary name. The first workbook name is Untitled. 1-2-3 refers to subsequent workbooks as Untitled1, Untitled2, and so on. When you save a new workbook, you must enter a file name in the Save As dialog box.

Creating blank workbooks quickly

To create workbooks quickly, turn off the New Workbook dialog box. Then, 1-2-3 simply creates a blank workbook whenever you choose File - New Workbook. To turn off the New Workbook dialog box, use File - User Setup - 1-2-3 Preferences (General tab).

Related SmartIcons



Creates a blank workbook without displaying the New Workbook dialog box.

{button ,AL('H_CREATING_A_BLANK_WORKBOOK_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SETTING_123_OPTIONS_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Creating a SmartMaster template

In addition to using the SmartMaster templates that come with 1-2-3, you can create your own templates by basing them on a starter template (SHELL.12M).

1. From the File menu, choose New Workbook.



2. Double-click "Create your own SmartMaster."
3. Add a title and description.

Note Assigning a title to the template will let you identify your SmartMaster in the New Workbook dialog box during future 1-2-3 sessions. Otherwise, the dialog box lists the template as [No Title].

4. After you have modified the template file, choose File - Save As.



5. Specify the SmartMaster templates directory as the location where you want to save the template.

Tip If you don't know the directory location, click Cancel, and then choose File - User Setup - 1-2-3 Preferences (File Locations tab) to check.

6. Enter a name in the "File name" box.
7. Select "Lotus 1-2-3 9 SmartMaster (12M)" from the "Save as type" list.
8. Click Save.

Note You cannot use File - Save As to create a SmartMaster template for use in 1-2-3 97. To save a file as a 1-2-3 97 SmartMaster template, first save the file as a Lotus 1-2-3 97 Workbook, and then change the file extension from .123 to .12M.

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_STEPS;H_WORKING_WITH_SMARTMASTER_TEMPLATES_OVER',0)} [See related topics](#)

Creating a workbook using a SmartMaster

Use SmartMaster templates to streamline tasks such as creating budgets and expense reports.

1. From the File menu, choose New Workbook.



2. Double-click the SmartMaster you want to use.
3. (Optional) To browse through other directories to find a SmartMaster that is not on the list, click More SmartMaster Templates.

Note To keep a copy of the new workbook on disk, you must save the workbook before you close it or end the 1-2-3 session.

{button ,AL('H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_DETAILS',1)} See details

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_CREATING_A_BLANK_WORKBOOK_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS;H_WORKING_WITH_SMARTMASTER_TEMPLATES_OVER',0)} See related topics

Details: Creating a workbook using a SmartMaster

SmartMaster templates

In the current release of 1-2-3, SmartMaster templates have a .12M file extension and contain scripts. In 1-2-3 Release 5 for Windows, SmartMaster templates have a .WT4 extension and contain macros.

The New Workbook dialog box lists titles of .12M SmartMaster templates only. To list a .WT4 SmartMaster template here, first choose File - Open to open the .WT4 file and then use File - Save As to save it as a .12M SmartMaster template. Be sure to save the .12M file in the specified SmartMaster templates directory.

Note Before you create a workbook using a .WT4 template that you saved as a .12M template, make sure that "Run file Opened scripts, autoexecute macros" in File - User Setup - 1-2-3 Preferences (General tab) is selected.

You cannot create a workbook using a SmartMaster that's currently open.

Changing the default location for templates

When you install 1-2-3, 1-2-3 puts the SmartMaster templates in the \lotus\smasters\123 directory. If you create a workbook by selecting a SmartMaster from a different directory, 1-2-3 makes that directory the default SmartMaster directory for the current 1-2-3 session.

To change the default location for SmartMaster templates for subsequent 1-2-3 sessions, use File - User Setup - 1-2-3 Preferences (File Locations tab).

Naming workbooks

1-2-3 supplies a temporary name. The first workbook name is Untitled. 1-2-3 refers to subsequent workbooks as Untitled1, Untitled2, and so on. When you save a new workbook, you must enter a file name in the Save As dialog box.

{button ,AL('H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_STEPS',1)} [Go to procedure](#)
{button ,AL('H_SETTING_FILE_LOCATIONS_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Importing a picture

You can import a picture stored in a graphics file and add it to the current workbook.

1. From the File menu, choose Open.



2. Select the type of graphics file you want.
3. Select the computer, drive, and directory where the file resides.
4. Select the file name from the list.
5. Click Combine.
6. Click the place in the sheet where you want to put the top left corner of the picture.

Tip You can also import a picture by copying it to the Clipboard and pasting it in the sheet.

{button ,AL('H_IMPORTING_A_PICTURE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_COMBINING_DATA_STEPS;H_OPTIONS_OPEN_FILE_REF;H_SPECIFYING_A_FILE_OVER',0)} [See related topics](#)

Details: Importing a picture

Types of graphic files you can import

You can import pictures stored in these file types into the current workbook:

- ANSI Metafile (.CGM)
- Bitmap (.BMP)
- GIF Image (.GIF)
- JPEG Image (.JPG, .JPEG)
- Lotus 1-2-3 PIC (.PIC)
- Windows Metafile (.WMF)

Sizing pictures

An imported picture retains the dimensions stored in the original graphics file.

You can drag a handle to change the size of a picture. However, sizing may distort the proportions of the picture. The size information in the original graphics file does not change when you size the picture in the sheet.

Tip If you change a picture's size and then don't like the result, select the picture and then choose Drawing - Restore to Original Size.

Attaching a LotusScript Click event to a picture

You can attach a LotusScript Click event to a picture. When you click the picture, 1-2-3 runs the script that is attached to the picture. To attach a Click event to a picture, use File - Open to import the picture into the workbook. Then open the Script Editor, select the name of the picture from the "Object" list, and enter the script. For more information about LotusScript, see [Overview: Using LotusScript](#) or [1-2-3: Click event](#).

Attaching a hyperlink to a picture

You can also attach a hyperlink to a picture, and choose whether you want the hyperlink to jump to a location on the Internet, to another file, or to a range or object in the current workbook. For more information, see [Creating a hyperlink](#).

{button ,AL('H_IMPORTING_A_PICTURE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_OPEN_FILE_REF',0)} [See related topics](#)

New Workbook dialog box

Use this dialog box to create either a new workbook or a SmartMaster template.

Choose a task

[Creating a blank workbook](#)

[Creating a workbook using a SmartMaster](#)

[Creating a SmartMaster template](#)

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_WORKING_WITH_SMARTMASTER_TEMPLATES_OVER',0)} [See related topics](#)

Details: Opening an existing file

Types of files you can open

You can open these file types in 1-2-3:

- dBASE (.DBF)
- HTML File (.HTM*)
- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Microsoft Excel (.XLS, .XLT, .XLW)
- Paradox (.DB)
- Quattro Pro (.WQ1, .WB1, .WB2)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)

Depending on your computer's available memory, you can have up to 256 sheets open at once.

Opening multiple files

You can select up to 32 files at a time to open in the Open dialog box. The files must be located in the same directory.

Running Opened events and autoexecute macros

1-2-3 runs all Opened events and autoexecute macros when you simultaneously open multiple workbooks that contain them.

If a workbook contains both an Opened event and an autoexecute macro, it is recommended that you either convert the autoexecute macro to an Opened-event script, or embed the macro in the Opened-event script.

If you don't want 1-2-3 to automatically run Opened events and autoexecute macros when you open workbooks that contain them, use File - User Setup - 1-2-3 Preferences (General tab) to turn off "Run file Opened scripts, autoexecute macros."

Recalculation settings and formulas

When you open a workbook, 1-2-3 uses the recalculation settings stored in that workbook for all active workbooks. These settings remain in effect until you either open another workbook that has different recalculation settings or end the 1-2-3 session.

If you open a workbook in which recalculation is set to Automatic, 1-2-3 automatically updates formulas in that workbook whenever you change the data they refer to.

If recalculation is set to Manual in the workbook, 1-2-3 recalculates formulas only when you press F9 (CALC) or click the Calc button in the status bar.

The recalculation settings apply only to formulas that refer to data in active workbooks. To update formulas that link to files on disk, use Edit - Manage Links.

Updating links

When you open a workbook that contains links either to other workbooks or to other Windows applications, 1-2-3 automatically updates the links. If you don't want 1-2-3 to update the links, use File - 1-2-3 Preferences (General tab) to turn off "Update links when opening workbooks."

Opening HTML files

You can open HTML files that contain table data inside `<table>` and `<pre>` tags. 1-2-3 treats the file as a new workbook and assigns a temporary name. The first workbook name is Untitled. 1-2-3 refers to subsequent workbooks as Untitled1, Untitled2, and so on. A hyperlink to the source file appears at the top of the sheet, with the table data below.

Opening Excel files

If you open an Excel file that contains untranslatable functions or links to other Excel files, 1-2-3 records the information in a log file.

Opening a read-only or reserved file

When you open either a read-only file or a file for which someone else has the reservation, 1-2-3 displays "(Read Only)" in front of the file name in the title bar.

If the file attribute is set to read-only by the operating system, you cannot save changes to the file under its current name. To save any changes to the file, you must save it under a different file name.

If you open a read-only copy of a file either by selecting "Open as read only" in the Open dialog box or by opening a

file without its reservation, you can subsequently get the reservation (if it is available) and then save changes to the file under its current name.

Opening a file automatically when you start 1-2-3

There are several ways you can make 1-2-3 always open a particular file each time you start 1-2-3:

- Use File - User Setup - 1-2-3 Preferences (File Locations tab) to specify a directory from which you want 1-2-3 to automatically open files.

If you created a file called AUTO123.WK4 for use in 1-2-3 Release 5 for Windows and want to continue opening the file automatically each time you start the current release of 1-2-3, put AUTO123.WK4 in the above specified directory.

Include the path and file name in the command line used to run 1-2-3. For example:

C:\LOTUS\123\PROGRAMS\123W.EXE C:\LOTUS\123\MYFILE.123

- Include the -w parameter and the path and file name in the command line used to run 1-2-3. For example:

C:\LOTUS\123\PROGRAMS\123W.EXE -W C:\LOTUS\123\MYFILE.123

If the file name contains either spaces or dashes, put single or double quotation marks around the path and file name. For example: C:\LOTUS\123\PROGRAMS\123W.EXE -W "C:\LOTUS\123\MY FILE.123"

Related SmartIcons



Opens a file from the Internet.

{button ,AL('H_OPENING_AN_EXISTING_FILE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_STEPS;H_OPTIONS_OPEN_FILE_REF;H_CREATING_AN_AUTOEXECUTE_MACRO_STEPS;H_WORKING_WITH_123_FILES_OVER;H_123_WORKING_WITH_DOS_FILES_OVER;H_123_WORKING_WITH_OS2_FILES_OVER;H_WORKING_WITH_DBASE_FILES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_QUATTRO_PRO_FILES_OVER;H_123_OPENED_EVENT_MEMDEF;H_USING_A_FILE_RESERVATION_OVER;H_GETTING_A_FILE_RESERVATION_STEPS;H_123_WORKING_WITH_HTML_FILES_OVER;H_123_OPENING_AN_HTML_FILE_STEPS',0)} [See related topics](#)

Opening an existing file

1. From the File menu, choose Open.



2. Select the type of file you want.
3. Select the computer, drive, and directory where the file resides.
4. Select the file name from the list.
5. Click Open.

If you selected a password-protected file, enter the password in the Password dialog box.

If someone else is using the workbook you selected and has the reservation, or if you selected a file that's set to read-only, 1-2-3 asks whether you want to open the file with read-only access.

For a description of the options in the Open dialog box, see [Options](#).

Tip You can also open a file that you used recently by choosing it from the bottom of the File menu.

{button ,AL('H_OPENING_AN_EXISTING_FILE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS;H_SPECIFYING_A_FILE_OVER;H_USING_A_FILE_RESERVATION_OVER;H_123_OPENING_A_DOCUMENT_FROM_A_WEB_SERVER_ON_THE_INTERNET_STEPS;H_123_OPENING_A_DOCUMENT_FROM_AN_FTP_SERVER_ON_THE_INTERNET_STEPS',0)} [See related topics](#)

Details: Opening a recently used file

Listing recently used files

You can show 0-10 file names at the bottom of the File menu using File - User Setup - 1-2-3 Preferences (General tab).

Opening text files

When you choose a text file from the bottom of the File menu, 1-2-3 opens the file using the formatting options that you last specified in the Text File Options dialog box. To open the text file using different options, choose File - Open.

Opening a read-only file

When you open a read-only file, 1-2-3 displays "(Read Only)" in front of the file name in the title bar. To save any changes to the file, you must save the file under a different file name.

Related SmartIcons



Opens an existing file



Opens a file from the Internet

{button ,AL('H_OPENING_A_RECENTLY_USED_FILE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPENING_A_TEXT_FILE_STEPS;H_SETTING_123_OPTIONS_STEPS',0)} [See related topics](#)

Opening a recently used file

1-2-3 gives you easy access to recently used files by listing them at the bottom of the File menu.

1. Choose File.
2. Choose a file from the list at the bottom of the menu.

If you selected a password-protected file, enter the password in the Password dialog box.

If someone else is using the workbook you selected and has the reservation, or if you selected a file that's set to read-only, 1-2-3 asks whether you want to open the file with read-only access.

{button ,AL('H_OPENING_A_RECENTLY_USED_FILE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS;H_USING_A_FILE_RESERVATION_OVER;',0)} [See related topics](#)

Details: Opening a text file

Naming text files

When you open a text file, 1-2-3 treats the file as a new workbook and assigns a temporary name. The first workbook name is Untitled. 1-2-3 refers to subsequent workbooks as Untitled1, Untitled2, and so on. When you save the file, you must enter a file name in the Save As dialog box. If you want to retain the file as a text file, you must also select "Text" as the file type.

{button ,AL('H_OPENING_A_TEXT_FILE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_OPEN_FILE_REF',0)} [See related topics](#)

Opening a text file

When you open a text file, you can choose how to format the data that you bring into the sheet or let 1-2-3 automatically parse the data into columns for you.

1. From the File menu, choose Open.



2. Select "Text" as the file type.
3. Select the computer, drive, and directory where the file resides.
4. Select the file name from the list.
5. Click Open.
6. Specify the text file format.

{button ,AL('H_OPENING_A_TEXT_FILE_DETAILS',1)} See details

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_OPTIONS_OPEN_FILE_REF;H_SPECIFYING_A_FILE_OVER',0)} See related topics

Open dialog box

Use this dialog box to open different types of files or to combine data from a file on disk with the current workbook.

Choose a task

[Opening an existing file](#)

[Opening a text file](#)

[Combining data from different files](#)

[Importing a picture](#)

[Opening a workbook from a Web server on the Internet](#)

[Opening a workbook from an FTP server on the Internet](#)

[Opening a Notes file attachment from within 1-2-3](#)

For a description of the options in this dialog box, see [Options](#).

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_123_OPEN_FROM_NOTES_DB_OVER',0)} [See related topics](#)

Options: Open dialog box

Look in

Displays the current directory and shows where it fits in the hierarchy on your computer. Below it is a list of directories and files in the selected location. The files listed match the type selected in the "Files of type" list.

File name

Lets you select a file from the list or enter a path and file name containing a combined total of up to 259 characters.

Files of type

Lists the types of files you can open or combine with the current workbook.

Description

Displays a description of the file contents. Only 1-2-3 workbooks (.123, .WK4, .WT4) and SmartMaster templates (.12M) can display a description.

To add a file description, use File - Workbook Properties (General tab), or File - Save As.

Open as read only

Opens a copy of the selected file that you can read but not modify.

When you open a read-only file, 1-2-3 displays "(Read Only)" in front of the file name in the title bar.

Combine with current workbook

Imports data from a file on disk into the current workbook.

Open

Opens the specified file. When you select "Combine with current workbook," the button name changes to Combine and lets you import data from the specified file into the current workbook.

Lotus Notes

Opens a file attachment stored in a document in a Lotus Notes database.

Internet

Opens a workbook from either an FTP server or a Web server on the Internet.

Details: Specifying options for combining 1-2-3 data

Options: Combine 1-2-3 File dialog box

Combine

- Entire workbook -- Combines all of the data from the selected workbook on disk with the current workbook.
- Range -- Combines a specified range of data from the selected workbook on disk with the current workbook.

Note Combining formulas that refer to a row, column, or sheet outside the boundary of the specified range may produce unexpected results.

Values from the file

- Replace current values -- Copies specified data from a workbook on disk into the current workbook, beginning at the current cell and writing over existing data. Blank cells from the workbook on disk will not replace data in corresponding cells in the current workbook.
- Add to current values -- Adds numeric data from a workbook on disk to values or blank cells in the current workbook, beginning at the current cell. This option adds numeric data to other numeric data only.
- Subtract from current values -- Subtracts numeric data in a workbook on disk from values or blank cells in the current workbook, beginning at the current cell. This option subtracts numeric data from other numeric data only.

Guidelines for adding and subtracting values

You can add numeric data to or subtract numeric data from other numeric data only. When the incoming value will overlay a label or formula in the current workbook, 1-2-3 discards the incoming value and retains the label or formula.

Do not add or subtract date or time numbers because the results will not be meaningful.

If you subtract a positive number from a blank cell, the result is a negative number because a blank cell evaluates to zero.

{button ,AL('H_SETTING_OPTIONS_FOR_COMBINING_123_DATA_STEPS',1)} [Go to procedure](#)

Specifying options for combining 1-2-3 data

Use the options in the Combine 1-2-3 File dialog box to control how you combine data from a workbook on disk with the current workbook.

1. Under Combine, select an option.
2. Under Values from the file, select an option.
3. Click OK.

If you are adding data from a password-protected workbook, enter the password in the Password dialog box.

{button ,AL('H_SETTING_OPTIONS_FOR_COMBINING_123_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_COMBINING_DATA_STEPS;H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEP
S;',0)} [See related topics](#)

Specifying a text file format

Use the Text File Options dialog box to format text files that you bring into 1-2-3.

1. Specify a parsing option.
2. Select a character set.
3. Click OK.

{button ,AL('H_SETTING_TEXT_FILE_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_COMBINING_DATA_STEPS;H_OPENING_A_TEXT_FILE_STEPS',0)} [See related topics](#)

Details: Specifying a text file format

Options: Text File Options dialog box

Parsing options

- Start a new column at each [separator] -- Lets you specify the type of separator you want 1-2-3 to use for breaking the data from the text file into columns in the sheet. If you don't see the character you want in the list, or if you want to use a separator that consists of more than one character, select "Other character(s)" and then enter from 1 to 3 characters in the box that appears.
- Automatically parse based on file layout -- Breaks the data from a non-delimited text file into columns in the sheet based on the space between vertically aligned data in the text file.
- Put everything in one column -- Puts all the data from the text file into a single column in the sheet.

Character set

Specifies the character set you want 1-2-3 to use for interpreting data in the text file. Each character set represents a different national language. Unless you're either opening a text file that was created in a different country or using a different operating system, the default character set should be appropriate.

{button ,AL(`H_SETTING_TEXT_FILE_OPTIONS_STEPS',1)} [Go to procedure](#)

Specifying a file

When you use a 1-2-3 command that requires you to specify a file, you must specify the file's path and name. You can do this several ways:

- Use "Look in" to list available directories and files in selected locations and then double-click the file you want from the list.
- Enter the path and file name in the "File name" box.
- Use the "File name" box in combination with the "Look in" box.

If you don't specify a path for a file, 1-2-3 looks for the file in the current directory.

The file path

The file path consists of the drive and directory where the file is located. The file name is the unique name and extension assigned to the file. For example, in the following file specification:

C:\REPORTS\JANUARY SUMMARY.123

C:\REPORTS is the path. It identifies C: as the drive and REPORTS as the directory where the file named JANUARY SUMMARY.123 is located. The .123 file extension identifies the file type.

If the file you're specifying is in a directory that's under another directory, the path includes both directory names. For example, in the following file specification:

C:\REPORTS\MONTHLY SALES\JANUARY SUMMARY.123

MONTHLY SALES is a directory under the REPORTS directory.

A backslash (\) must separate the drive, directory, and file name.

Using wildcard characters to list files

You can see a list of files with similar names or extensions by including the wildcard characters * (asterisk) and ? (question mark) in the file name that you enter in the "File name" box.

Asterisk (*)

The * wildcard character represents any number of consecutive characters in a file name or extension.

For example, to list all files with the characters MARCH9 (such as MARCH9.123, MARCH9.WK4, and MARCH96.WK3), you enter MARCH9*.* in the "File name" box and press ENTER.

To list all files that begin with B and have the extension .CGM, you enter B*.cgm and press ENTER.

To list all files in a folder, you enter *.* and press ENTER.

Question mark (?)

The ? wildcard character represents any single character in a file name or extension.

For example, to list all .123 files that begin with SALES followed by two characters, you enter SALES??.123 in the "File name" box and press ENTER.

{button ,AL('H_OPTIONS_OPEN_FILE_REF;H_OPENING_AN_EXISTING_FILE_STEPS;H_COMBINING_DATA_STEPS;H_IMPORTING_A_PICTURE_STEPS;H_OPENING_A_TEXT_FILE_STEPS',0)} [See related topics](#)

Working with SmartMaster templates

SmartMaster™ templates give you a quick start for creating useful, attractive spreadsheets. Each template is designed to help you perform a different task.

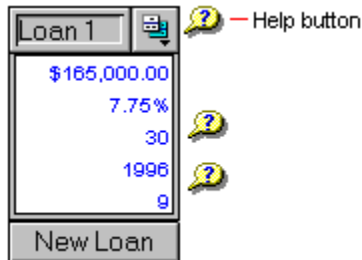
Exploring SmartMaster templates

Some SmartMaster templates contain sample data that you can look over and then replace with your own data. Built-in buttons let you print or mail the data.

You can use 1-2-3 SmartMaster templates to:

- Amortize a loan
- Calculate loan payments
- Create a personal budget
- Create a purchase order
- Create a territory sales plan
- Create an expense report
- Create an invoice
- Fill out a time sheet
- Create your own SmartMaster

To see Help about particular parts of a SmartMaster, click the Help button in the SmartMaster:



To clear the Help, click it or click the Help button again.

Customizing and creating SmartMaster templates

To customize an existing SmartMaster template, just make the changes you want and then save the file. If you want to keep the original SmartMaster unchanged, use File - Save As to save the customized template as a new .12M file with a different name.

You can also create your own templates, based on SHELL.12M, a starter template that comes with 1-2-3.

Before you save the SmartMaster, be sure to add a title and description to make it easy to identify in the future. Then you can share the template with your workgroup.

```
{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_CREATING_A_SMARTMASTER_TEMPLATE_STEP  
S;H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_STEPS;H_EDITING_THE_FILE_DESCRIPTION  
_STEPS;',0)} See related topics
```

1-2-3 as an Active Document server

Active Document is an extension of OLE technology. In this release, 1-2-3 is an Active Document server which means you can open a 1-2-3 workbook from within Active Document container applications such as Notes 4.6, Word Pro Release 9, Microsoft Internet Explorer, and Microsoft Office Binder.

For example, if you choose File - Open from Microsoft Internet Explorer and choose a 1-2-3 file, the file opens in the Internet Explorer window, or if you click a link to a 1-2-3 file, that file opens in the browser window.

What happens when you open a 1-2-3 workbook in this way?

You can work with data, print, and save your work.

- The 1-2-3 workbook opens inside the container's window.
- The space in the window between the container's icon bar and the container's status bar belongs to 1-2-3.
 - 1-2-3 displays a SmartIcons bar below the container's icon bar.
 - 1-2-3 displays a status bar above the container's status bar.
 - 1-2-3 displays the workbook in the window.
- 1-2-3 shares the menu with the container, so the commands you see will be different depending on the container.
 - File menu commands are controlled by the container, but some 1-2-3 commands, such as Save, Save As, Page Setup, Print, and Workbook properties may be available.
 - Window menu commands are controlled by the container.
 - Help menu commands are controlled by the container, but 1-2-3 adds a Help menu to the bottom of the container's menu so you can still access Help for 1-2-3.

SmartIcons give you access to 1-2-3 commands

The Active Document icon set provides access to some of the 1-2-3 commands that will not appear on the container's menu. You can use these icons to do the following tasks.



- 1 Customize 1-2-3 behavior
- 2 Combine file with current workbook
- 3 Save a range to a file
- 4 Print
- 5 Undo last command or action
- 6 Cut to Clipboard
- 7 Copy to Clipboard
- 8 Paste Clipboard contents

{button ,AL(' ;H_123_DOCOBJ_COMBINE_STEPS;H_123_DOCOBJ_EXTRACT_STEPS;H_123_DOCOBJ_PRINT_DIALOG_BOX_STEPS',0)} [See related topics](#)

Print dialog box

Use this dialog box to print your work.

Choose a task

[Printing a workbook](#)

[Printing the current sheet](#)

[Printing a range](#)

For a description of the options in the Print dialog box, see [Options](#).

Options: Print dialog box

Printer

- If you installed more than one printer, you can select a different printer from the "Print to" list. If you need to install a printer, see the documentation for your operating system.
- Properties -- Lets you change properties for the current printer. The properties you can change depend on the type of printer you have installed.
- Print to file -- Saves data from a 1-2-3 workbook to a .PRN file so you can print it at another time. If you print to a file, you will need to specify a name for the file and a folder in which to save the file.

Note The .PRN file contains information specific to the printer driver that you are using with 1-2-3. When you print the file, use the same type of printer you were using with 1-2-3 when you created the file.

Pages

Lets you specify how many pages you want to print and how to number the pages.

Copies

Lets you specify how many copies you want to print and if you want to collate them.

Print

Lets you specify what you want to print.

Page Setup

Opens the Page Setup dialog box where you can change settings for margins, page layout, headers, footers, and specify which elements of the sheet you want to print.

Printing the current sheet

1. Move the cell pointer to the sheet you want to print.
2. Click the Print icon in the 1-2-3 icon bar.



3. Under Printer, select the printer you want to use.
4. Under Print, select "Current sheet."
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.
7. (Optional) Click Page Setup to change settings for margins, page layout, headers, and footers, and to specify which elements of the sheet you want to print.
8. Click Print.

1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page.

Tip If the pages do not automatically break where you want, you can add page breaks using the InfoBox. From the Range menu, choose Range - Properties and click the Basics tab. Select "Break page at column" to insert a vertical page break in the column to the left of the selected cell. Select "Break page at row" to insert a horizontal page break in the row above the selected cell.

{button ,AL(`;H_123_DOCOBJ_OPTIONS_PRINT_DIALOG_BOX_OVER',0)} [See related topics](#)

Printing a workbook

If you print a workbook that contains more than one sheet, you can control whether 1-2-3 prints each sheet on a new page or prints the data from multiple sheets consecutively on the same page.

1. Click the Print icon in the 1-2-3 icon bar.



2. Under Printer, select the printer you want to use.
3. Under Print, select "Entire workbook."
4. To print sheets on separate pages, select "On separate pages," or deselect this option to print the sheets consecutively on the same page.
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.
7. (Optional) Click Page Setup to change settings for margins, page layout, headers, and footers, and to specify which elements of the sheet you want to print.
8. Click Print.

{button ,AL(`;H_123_DOCOBJ_OPTIONS_PRINT_DIALOG_BOX_OVER',0)} [See related topics](#)

Printing a range

You can print a range, a collection of ranges, or a 3D range.

Note When you print a collection of ranges or a 3D range, you can control whether 1-2-3 prints the ranges on separate pages or consecutively on the same page.

1. Click the Print icon in the 1-2-3 icon bar.



2. Under Printer, select the printer you want to use.
3. Under Print, select "Selected Range" and enter the range(s) you want to print or use the range selector to select the range.
4. If you are printing a collection or a 3D range, select "On separate pages" to print the ranges or sheets on separate pages or deselect this option to print them consecutively on the same page.
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.
7. (Optional) Click Page Setup to change settings for margins, page layout, headers, and footers, and to specify which elements of the sheet you want to print.
8. Click Print.

1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page.

Tip If the pages do not automatically break where you want, you can add page breaks using the InfoBox. From the Range menu, choose Range - Properties and click the Basics tab. Select "Break page at column" to insert a vertical page break in the column to the left of the selected cell. Select "Break page at row" to insert a horizontal page break in the row above the selected cell.

{button ,AL(`;H_123_DOCOBJ_OPTIONS_PRINT_DIALOG_BOX_OVER',0)} [See related topics](#)

Page Setup dialog box (Margins & Fit tab)

Use these settings to specify margins, page orientation, centering, and the paper size. You can also size data to fit on the printed page.

Margins

Enter a measurement for the left, right, top, or bottom print margins.

- If the minimum margins for your printer are larger than what you entered, 1-2-3 automatically adjusts the margins.
- The top and bottom margins together cannot exceed the height of the page. The right and left margins together cannot exceed the width of the page.
- You can set the unit of measurement for margins in the Windows control panel. To display these settings, click the Start button, choose Settings - Control Panel, and then open Regional Settings.

Orientation

Select portrait or landscape mode, depending on how your data is arranged.

- Landscape -- Prints sideways
- Portrait -- Prints upright

Tip Use landscape mode when your sheet is wider than a standard page. If you are printing many columns of data, landscape printing may help you fit all the columns on a single page.

Center

Select one or both options. Selecting both options centers the data in both directions.

Page

Choose how you want to scale your work for the printed page.

When printing data

- Actual -- Prints the selection in the size it appears on the screen
- Fit all to page -- Fits all the data on a single printed page
- Fit rows to page -- Shrinks all the rows of data to fit on a single printed page
- Fit columns to page -- Shrinks all the columns of data to fit on a single printed page
- Custom -- Shrinks or enlarges the printed data by a percentage you enter. You can enter a percentage from 15 to 1000. For example, enter 75 to shrink the selection to 75% of its original size.

When printing an object such as a chart or map without sheet data

- Actual -- Same as above
- Fill page -- Enlarges the object to fill the page
- Fill page, but keep proportions -- Enlarges the object with the same proportions
- Custom -- Same as above

Paper

Choose from the paper sizes supported by the current printer.

Page Setup dialog box (Headers & Footers tab)

A header is text printed at the top of each page below the top margin. A footer is text printed at the bottom of each page above the bottom margin.

Use these settings to add headers, footers, and repeating titles on each printed page.

Object

Select the placement for header and footer text -- Left, Center, and Right. You can enter different text for each location.

Fonts

Click Fonts to change properties for header and footer text. You can change the font, size, color, and attributes.

Text

Type header and footer text (up to 255 characters per header or footer) in the Text box and press TAB.

You can combine text with one or more of the following symbols to add specific information in headers and footers. For example, you can type Page # (pound sign) to print Page 1, Page 2, Page 3, and so on as a header or footer.

To enter	Type
The date of printing	@ (at sign)
The time of printing	+ (plus sign)
Consecutive page numbers	# (pound sign)
The total number of pages	% (percent sign)
The file name	^ (caret)
The contents of a cell	\ (backslash) followed by a cell address or range name

Header and Footer height

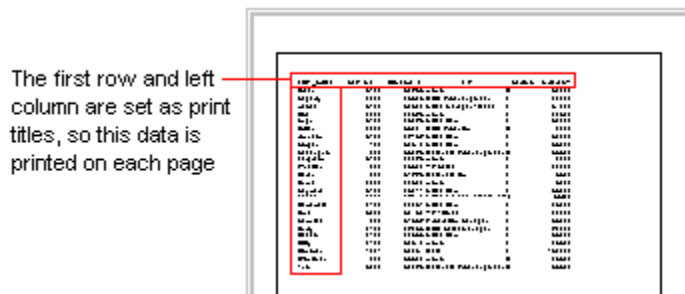
By default, 1-2-3 uses the largest font in the header or footer to determine how much space the header or footer needs at the top or bottom of the page. To change this setting, deselect "Fit largest font" and enter a number for the height of the header and footer.

Print as titles on each page

Titles can clarify data in your printed sheet by providing the same headings in the first row and left column of each printed page. Data in the columns will print along the left edge of each page, and data in the rows will print along the top edge of each page.

Under Rows and Columns -- Enter a range for "Rows," "Columns," or both, or use the range selector to select the range(s).

Note You need to specify only one cell from each column or row for the titles. Although you can select as many contiguous columns and rows as you like for titles, it is practical to set only a few columns and rows so your data will fit on the page.



Tips for headers and footers

- You can enter up to 255 characters for each part of a header or footer.
- When you type text for a header or footer, press TAB to confirm your entry.
- To prevent the segments of a header or footer from overlapping:
 - Press ENTER to start a new line and display the text on more than one line
 - Delete some of the text or enter the text in a different location.
- You can set the unit of measurement for headers and footers in the Windows control panel. To display these settings, click the Start button, choose Settings - Control Panel, and then open Regional Settings.
- To print @ (at sign), + (plus sign), # (pound sign), % (percent sign), ^ (caret), or \ (backslash) in a header or footer, enter an ' (apostrophe) immediately before the character. For example, enter '#' to print #.
- If you use @ (at sign) or + (plus sign) to enter the date or time, 1-2-3 updates the date and time using the system date each time you print. If you do not want the date and time to change each time you print, you can just type them in.
- When you use \ (backslash) followed by a cell address or range name to specify header or footer text, 1-2-3 uses the contents of the first cell of the range only. You cannot combine the contents of a cell with any other text, symbols, numbers, or letters in a header or footer.
- You cannot use a | (vertical bar) character in a header or footer.
- 1-2-3 cannot print headers and footers that are larger than the printable area on the page.

Page Setup dialog box (Include Tab)

From the Include tab, you can select the elements you want to print with your data.

Show

You can include the following elements when you print your work:

- Sheet data (default is on)
- Charts, maps, drawings, and table frames (default is on)
- Cell comments
- Formulas
- Sheet grid lines
- Sheet row and column frames

Named print styles

To retrieve a named print style saved in an .AL3 file from an earlier release of 1-2-3, click Retrieve, and specify the name of the .AL3 file you want to use. When you retrieve a named print style, 1-2-3 applies the settings to the current file.

Combining data from different files

When you open a 1-2-3 workbook as an Active document object, you can add data to the workbook from a file on disk. When you combine the data with the current workbook, 1-2-3 enters the data in the current sheet beginning at the current cell.

1. Select the cell where you want to begin combining data.
2. In the 1-2-3 icon set, click the icon that combines a file with the current workbook.



3. Select the type of file containing the data you want to combine.
4. Select the computer, drive, and directory for the file containing the data you want to combine.
5. Select the file name from the list.
6. Click Combine.
 - If you selected a workbook file, specify the options for combining data in the Combine 1-2-3 File dialog box.
 - If you selected a text file, specify the text file format in the Text File Options dialog box.

Saving a range as a new file

When you open a 1-2-3 workbook as an Active document object, you can extract cell data from the current workbook by saving a range as a separate file.

1. Select the range that contains the data you want to extract.
2. In the 1-2-3 icon set, click the icon that saves a range to a file.



3. Enter a name in the "File name" box.

Note You must enter a different file name than that of the current workbook.

4. (Optional) Select a different file format from the "Save as type" list.
5. Click Save.
6. If you save the data in a 1-2-3 file, the Save Selected Range dialog box appears. Select "Keep formulas" or "Convert formulas to values," and click OK.

For a description of the options in the Save As dialog box, see Options.

Changing the password for a locked workbook

To change the password you use to prevent others from changing workbook contents, you first unlock the workbook and then relock it with a new password.

1. Make sure the cell pointer is in the workbook for which you want to change the password.
2. From the File menu, choose Workbook Properties.



3. Click the Security tab in the dialog box.
4. Deselect "Lock workbook."
5. Enter the current password in the Password dialog box.
6. After you return to the Workbook Properties dialog box, reselect "Lock workbook."
7. Set a new password in the Set Password dialog box.
8. After you return to the Workbook Properties dialog box, click OK.

{button ,AL('H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Changing the reservation setting

If you don't want the workbook reservation to go automatically to the first person who opens the workbook, you can change the reservation setting.

1. From the File menu, choose Workbook Properties.



2. Click the Security tab in the dialog box.
3. Deselect "Always get reservation when opening workbook," and click OK.

{button ,AL(`H_CHANGING_THE_FILE_RESERVATION_SETTING_DETAILS',1)} [See details](#)

{button ,AL(`H_USING_A_FILE_RESERVATION_OVER;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Details: Changing the reservation setting

When you open a workbook, 1-2-3 takes different actions depending on the reservation setting and whether the reservation is available:

- If "Always get reservation when opening workbook" is turned on and the reservation is available, 1-2-3 gives you the reservation when you open the workbook, allowing you to save changes to the workbook.
- If "Always get reservation when opening workbook" is turned on but the reservation is unavailable, 1-2-3 asks whether you want to open a read-only copy of the workbook without its reservation.
- If "Always get reservation when opening workbook" is turned off, 1-2-3 opens the workbook without its reservation, regardless of the workbook's reservation status. To make changes to the workbook, you must first use File - Get Reservation to try to get the reservation while the workbook is current. If someone else already has the reservation, that person must release it before you can get it.

{button ,AL('H_CHANGING_THE_FILE_RESERVATION_SETTING_STEPS',1)} [Go to procedure](#)

Changing the password for a protected workbook

To change the password you use to prevent others from opening a workbook or SmartMaster template, you open the file, assign a new password, and resave the file.

1. Make sure the cell pointer is in the file for which you want to change the password.
2. From the File menu, choose Save As.



3. Click Password.
4. Set a new password in the Set Password dialog box.
5. After you return to the Save As dialog box, click Save.
6. When 1-2-3 says that the file already exists, click Replace to replace the existing file with the current file.

Note Only people who know the password can open the file and change its password.

{button ,AL('H_PROTECTING_DATA_OVER;H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS;H_DELETING_A_PASSWORD_STEPS;H_OPTIONS_SAVE_AS_REF',0)} [See related topics](#)

Removing restrictions on opening a workbook

If you don't need to prevent others from opening a password-protected workbook or SmartMaster template, you can remove the password.

1. Make sure the cell pointer is in the file for which you want to remove the password.
2. From the File menu, choose Save As.



3. Click Password.
4. After 1-2-3 displays the Set Password dialog box, check that the "Password" and "Verify password" boxes are blank and click OK.
5. After you return to the Save As dialog box, click Save.
6. When 1-2-3 says that the file already exists, click Replace to replace the existing file with the current file.

Note Only people who know the password can open the file and remove its password.

{button ,AL(`H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS;H_OPTIONS_SAVE_AS_REF
;H_PROTECTING_DATA_OVER;H_CHANGING_THE_PASSWORD_FOR_A_PROTECTED_WORKBOOK_STE
PS',0)} See related topics

Getting a workbook reservation

By default, the reservation goes to the first person who opens a workbook. If the default reservation setting has been changed, you need to get the reservation while the workbook is current.

To get the reservation for the current workbook, choose File - Get Reservation.

1-2-3 gives you the reservation if it's available.

{button ,AL('H_GETTING_A_FILE_RESERVATION_DETAILS',1)} See details

{button ,AL('H_RELEASING_A_FILE_RESERVATION_STEPS;H_USING_A_FILE_RESERVATION_OVER;H_PROTECTING_DATA_OVER;H_CHANGING_THE_FILE_RESERVATION_SETTING_STEPS',0)} See related topics

Details: Getting a workbook reservation

Opening a workbook with its reservation

By default, 1-2-3 gives the workbook reservation to the first person who opens the workbook. You need to use File - Get Reservation only if "Always get reservation when opening workbook" is turned off. To see the reservation setting for the current workbook, choose File - Workbook Properties (Security tab).

If you try to open a workbook and someone else already has the reservation, 1-2-3 asks whether you want to open a read-only copy of the workbook. The other person who has the reservation must release it before you can get it.

Opening a workbook without its reservation

If you just want to look at a workbook and don't need to make changes to it, you can open the workbook without its reservation. Choose File - Open and select "Open as read only" in the Open dialog box. If you find that you need to make changes to the workbook, use File - Get Reservation to try to get the reservation.

{button ,AL(`H_GETTING_A_FILE_RESERVATION_STEPS',1)} [Go to procedure](#)

{button ,AL(`H_OPENING_AN_EXISTING_FILE_STEPS',0)} [See related topics](#)

Entering a password

1. Enter the previously assigned password in the "Enter password" box.

Note You must use the exact combination of uppercase and lowercase characters that were used to create the password.

2. Click OK.

{button ,AL('H_UNLOCKING_A_WORKBOOK_STEPS;H_OPENING_AN_EXISTING_FILE_STEPS;H_OPENING_A_RECENTLY_USED_FILE_STEPS',0)} [See related topics](#)

Locking sheet contents

Locking a sheet prevents other people from entering or editing data in the sheet, except in cells that you specifically left unprotected.

1. (Optional) Leave cells unprotected in any ranges or versioned ranges where you want to allow changes to cell contents.
2. Make sure the cell pointer is in the sheet you want to lock.
3. From the Sheet menu, choose Sheet Properties.



4. Click the Basics tab in the InfoBox.



5. Select "Lock contents of protected cells in this sheet."
6. (Optional) Move, collapse, or close the InfoBox.

Note If the current sheet belongs to a set of grouped sheets, locking that sheet locks the other sheets in the group.

{button ,AL('H_LOCKING_SHEET_CONTENTS_DETAILS',1)} [See details](#)

{button ,AL('H_MAKING_PART_OF_A_SHEET_OR_WORKBOOK_UNPROTECTED_STEPS;H_PROTECTING_DATA_OVER;H_UNLOCKING_A_SHEET_STEPS;H_PROTECTING_UNPROTECTED_CELLS_IN_A_LOCKED_SHEET_STEPS;H_GROUPING_SHEETS_STEPS;H_CHANGING_VERSION_PROPERTIES_STEPS',0)} [See related topics](#)

Details: Locking sheet contents

After you lock the sheet, the status bar displays PR when you select a protected cell and U when you select an unprotected cell.

How locking a sheet differs from locking a workbook

When you lock a sheet, 1-2-3 locks only the contents of the cells in the sheet that you have not previously left unprotected. Because you don't use a password to lock a sheet, anyone can unlock the sheet and change its cell contents.

Locking a workbook prevents changes to its contents, styles, and structure, while locking a sheet only prevents changes to its contents. Because you use a password to lock the workbook, only people who know the password can make changes to the workbook.

Tasks you can't perform in a locked sheet

When the current sheet is locked, you can't:

- Change cell contents or comments, except in unprotected cells
- Display unprotected, protected, or hidden versions, except those for which cells are left unprotected
- Insert or delete columns or rows

{button ,AL('H_LOCKING_SHEET_CONTENTS_STEPS',1)} Go to procedure

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_STEPS',0)} See related topics

Locking workbook contents

When you lock a workbook's contents with a password, other people can open the workbook. However, unless they know the password, they can't modify the workbook, except in ranges that you specifically left unprotected.

1. (Optional) Leave unprotected any ranges and versions in which you want to allow changes to cell contents.
2. From the File menu, choose Workbook Properties.



3. Click the Security tab in the dialog box.
4. Select "Lock workbook."
5. Set the password in the Set Password dialog box.
6. After you return to the Workbook Properties dialog box, click OK.

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_DETAILS',1)} [See details](#)

{button ,AL('H_PROTECTING_DATA_OVER;H_MAKING_PART_OF_A_SHEET_OR_WORKBOOK_UNPROTECTED_STEPS;H_CHANGING_A_LOCKED_WORKBOOK_PASSWORD_STEPS;H_UNLOCKING_A_WORKBOOK_STEPS;H_PROTECTING_UNPROTECTED_CELLS_IN_A_LOCKED_WORKBOOK_STEPS;H_CHANGING_VERSION_PROPERTIES_STEPS',0)} [See related topics](#)

Details: Locking workbook contents

You can lock the contents of either a workbook (.123, .WK4, .WK3, .WT4) or a SmartMaster template (.12M) with a password.

Locking a workbook with a password is different from saving a workbook with a password:

- When you use File - Workbook Properties to lock a workbook with a password, other people can open the workbook. However, unless they know the password, they can't make changes to the contents of the workbook.
- When you use File - Save As to save a workbook with a password, only people who know the password can open, print, or view the workbook.

After you lock the workbook, the status bar displays PR when you select a protected cell and U when you select an unprotected cell.

Tasks you can't perform in a locked workbook

When a workbook is locked, you can't:

- Change cell contents or comments, except in unprotected cells
- Display hidden versions, change protected versions, or change unprotected versions, except those for which cells are left unprotected
- Display hidden version groups or change protected version groups
- Show hidden columns, rows, or sheets
- Insert or delete columns, rows, or sheets
- Copy or move sheets
- Change column width or row height
- Change page breaks
- Freeze or clear sheet titles
- Change number format, style, or alignment
- Name or rename sheets
- Name or rename ranges
- Group or ungroup sheets
- Change outline settings
- Add or change charts, maps, graphic objects, DQA query tables, datalink tables, or Web tables
- Add hyperlinks
- Change protection or workbook reservation settings

Working with versions

When you create a version, you select the protection setting that you want in either the New Version dialog box or the Range InfoBox (Version tab). The version protection setting takes effect after you lock the workbook.

For information about version protection settings, see [Options: New Version dialog box and Range InfoBox.](#)

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS',0)} [See related topics](#)

Details: Leaving part of a workbook or sheet unprotected**Which cells are protected and unprotected?**

The status bar displays U when you select an unprotected cell. After you lock the workbook or sheet, the status bar displays PR when you select a protected cell and U when you select an unprotected cell.

{button ,AL('H_MAKING_PART_OF_A_SHEET_OR_WORKBOOK_UNPROTECTED_STEPS',1)} [Go to procedure](#)

Leaving part of a workbook or sheet unprotected

Before you lock a workbook or sheet, you can leave specified ranges unprotected to allow changes to their data.

1. Select the ranges or collections where you want to allow changes to data.
2. From the Range menu, choose Range Properties.



3. Click the Security tab in the InfoBox.



4. Deselect "Protect cell contents from changes."
5. (Optional) Move, collapse, or close the InfoBox.
6. Do one of the following:
 - Lock the workbook.
 - Lock the sheet.

{button ,AL('H_MAKING_PART_OF_A_SHEET_OR_WORKBOOK_UNPROTECTED_DETAILS',1)} [See details](#)

{button ,AL('H_LOCKING_SHEET_CONTENTS_STEPS;H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Preventing others from opening a workbook

When you assign a password to a workbook or SmartMaster template, only people who know the password can open, print, or view the file.

1. Make sure the cell pointer is in the file you want to prevent others from opening.
2. From the File menu, choose Save As.



3. Enter a name in the "File name" box.
4. Click Password.
5. Set a password in the Set Password dialog box.
6. After you return to the Save As dialog box, click Save.

{button ,AL('H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_DETAILS',1)} [See details](#)

{button ,AL('H_DELETING_A_PASSWORD_STEPS;H_PROTECTING_DATA_OVER;H_NAMING_A_FILE_OVER;H_OPTIONS_SAVE_AS_REF;H_CHANGING_THE_PASSWORD_FOR_A_PROTECTED_WORKBOOK_STEPS',0)} [See related topics](#)

Details: Preventing others from opening a workbook

You can save either a workbook (.123, .WK4, .WK3, .WK1, .WT4) or a SmartMaster template (.12M) with a password.

Saving a workbook or SmartMaster template with a password is different from locking a workbook with a password:

- When you use File - Save As to save a workbook or SmartMaster template with a password, only people who know the password can open, print, or view the file.
- When you use File - Workbook Properties to lock a workbook with a password, other people can open the workbook. However, unless they know the password, they can't make changes to the contents of the workbook.

When the password doesn't work

Anyone who knows the password that was assigned to a workbook or SmartMaster template can change or remove the password. If you're unable to open a password-protected workbook or SmartMaster template, check to see if someone else who knew the original password has changed it.

{button ,AL('H_PREVENTING_OTHERS_FROM_OPENING_A_WORKBOOK_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_SAVE_AS_REF',0)} [See related topics](#)

Overview: Protecting data

Sometimes your workbooks contain data you don't want other people to change or even see. For example, you may want to prevent others from changing a set of formulas, or limit who can open a workbook that contains confidential financial data. In 1-2-3, you can choose the level of security you want.

Preventing others from opening a workbook

You can limit access to a workbook or SmartMaster template completely by saving it with a password. Only those people who know the password can open, print, or view the file.

For example, you could create a SmartMaster template that calculates annual raises for the employees in your organization. To keep the financial data in the file confidential, you save the template with a password. Only managers who know the password would be able to see the file contents.

Note If you copy or rename a file that has a password, you must know the password to open the copy or renamed file.



[See related topics](#)

Locking workbook contents to prevent changes

Locking a workbook prevents changes to protected ranges, [versions](#), and [version groups](#); charts, maps, and [graphic objects](#); [DQA query tables](#), [Web tables](#), and [datalink tables](#); styles; and row, column, and sheet settings.

When you lock a workbook, other people can still open it. However, unless they know the password, they can't change any data in the workbook except in ranges that you specifically left unprotected before locking the workbook.

For example, you could create a workbook to calculate sales information. While you want other people to add their data, you don't want them to change your formulas or formatting. To prevent others from making unwanted changes, you can deselect protection for the ranges where you want them to enter their data, and then lock the workbook.



[See related topics](#)

Locking individual sheets and objects

If you don't want to lock an entire workbook, you can lock individual sheets and objects such as charts and graphics.

Before locking a sheet, you can leave unprotected any ranges in which you want to allow changes. Locking the sheet protects the entire sheet from changes to range contents except in ranges for which you deselected protection.

Locking individual objects such as charts and graphics protects them (but not the underlying sheet) from change.

Because you don't use a password to lock individual sheets and objects, anyone can unlock them. Protecting data in this way is meant only to prevent accidental changes.



[See related topics](#)

Using reservations to prevent conflicting changes

Each workbook has a reservation. If you share the workbook with other people on a network, 1-2-3 uses the reservation to control access to the workbook. By default, the reservation always goes to the first person who opens the workbook.

Before you can change a workbook over a network, you must get the reservation. Although the person who has the reservation is the only one who can make changes to the workbook, other people can view, copy, or print the workbook at the same time.



[See related topics](#)

Protecting unprotected ranges in a locked sheet

1. Unlock the sheet.

Note Collapse or move the InfoBox, but do not close it.

2. Select the unprotected range or collection you want to protect.
3. Click the Security tab in the InfoBox.



4. Select "Protect cell contents from changes."
5. Lock the sheet.

{button ,AL(`H_LOCKING_SHEET_CONTENTS_STEPS;H_PROTECTING_DATA_OVER;H_UNLOCKING_A_SHEET_STEPS',0)} [See related topics](#)

Protecting unprotected ranges in a locked workbook

1. Unlock the workbook.
2. Select the unprotected range or collection you want to protect.
3. From the Range menu, choose Range Properties.



4. Click the Security tab in the InfoBox.



5. Select "Protect cell contents from changes."
6. (Optional) Move, collapse, or close the InfoBox.
7. Lock the workbook.

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Releasing a workbook reservation

Before you release the reservation, make sure you save any changes you made to the workbook.

To release the workbook reservation, choose File - Release Reservation.

Note 1-2-3 automatically releases the reservation when you either close the workbook or end the 1-2-3 session.

{button ,AL('H_PROTECTING_DATA_OVER;H_GETTING_A_FILE_RESERVATION_STEPS;H_USING_A_FILE_RESERVATION_OVER;H_CHANGING_THE_FILE_RESERVATION_SETTING_STEPS',0)} [See related topics](#)

Details: Setting a password

Using password protection

You can assign a password using File - Save As or File - Workbook Properties (Security tab).

- If you use File - Save As to save a workbook or SmartMaster template with a password, you must know the password to open, print, or view the file.
- If you use File - Workbook Properties (Security tab) to lock a workbook's contents with a password, you must know the password to make changes to the workbook or to unlock it.

If you don't use the password-protected file often, write down its password and keep it in a safe place.

{button ,AL('H_SET_PASSWORD_STEPS',1)} [Go to procedure](#)

Setting a password

1-2-3 is case-sensitive, so you must remember the exact combination of uppercase and lowercase characters.

1. Enter a password of up to 15 characters in the "Password" box.
2. Reenter the password in the "Verify password" box.
3. Click OK.

{button ,AL('H_SET_PASSWORD_DETAILS',1)} [See details](#)

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_PREVENTING_OTHERS_FROM_OPENING_A_W
ORKBOOK_STEPS',0)} [See related topics](#)

Unlocking a sheet

You must unlock a sheet before you can make changes to protected ranges in the sheet.

1. Make sure the cell pointer is in the sheet you want to unlock.
2. From the Sheet menu, choose Sheet Properties.



3. Click the Basics tab in the InfoBox.



4. Deselect "Lock contents of protected cells in this sheet."
5. (Optional) Move, collapse, or close the InfoBox.

Note If the current sheet belongs to a set of grouped sheets, unlocking that sheet unlocks the other sheets in the group.

{button ,AL('H_PROTECTING_DATA_OVER;H_LOCKING_SHEET_CONTENTS_STEPS;H_GROUPING_SHEETS_STEPS',0)} See related topics

Unlocking a workbook

If you decide that it's OK for others to make changes to workbook contents, you can unlock the workbook. You must know the password to unlock the workbook.

1. Make sure the cell pointer is in the workbook you want to unlock.
2. From the File menu, choose Workbook Properties.



3. Click the Security tab in the dialog box.
4. Deselect "Lock workbook."
5. Enter the password in the Password dialog box.
6. After you return to the Workbook Properties dialog box, click OK.

Once you unlock a workbook, 1-2-3 deletes the password. If you decide to relock the workbook, you must reassign a password.

{button ,AL('H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Overview: Using a workbook reservation

Workbook reservations let you control how you share workbooks on a network or in another multi-user environment, and help ensure that people don't inadvertently write over each other's work.

The workbook's reservation status changes depending on whether someone has the reservation. If no one has the reservation, it's available. If someone has the reservation, it's unavailable. Only one person at a time can have the reservation for a workbook.

Saving changes to a workbook

In a multi-user environment, you need the reservation to save changes to a workbook. When you have the reservation, you are the only person who can save changes to the workbook. Other people can open, print, view, or copy the workbook while you're using it, but they can't change the workbook as long as you have the reservation.

Opening a workbook without the reservation

When you try to open a workbook and someone else has the workbook's reservation, 1-2-3 asks whether you want to open a copy of the workbook with read-only access. When you open a read-only copy, you see "(Read Only)" before the workbook name in the title bar. You can use the workbook, but you can't save changes to the workbook under its current name.

After you open a workbook with read-only access, you can try to get its reservation using File - Get Reservation. If someone saved changes to the workbook since you opened the read-only copy, 1-2-3 displays a warning. You can do the following:

- To retain changes that you made to the data, use File - Save As to save the workbook under a different name.
- To see the most up-to-date version of the workbook, close the current workbook and then reopen it.

Getting the reservation

The reservation setting determines how you get the workbook reservation. By default, the reservation automatically goes to the first person who opens the workbook.

You can change the reservation setting so that no one automatically gets the reservation. Then, to get the reservation, you must use File - Get Reservation while the workbook is current.

Releasing the reservation

1-2-3 releases the workbook reservation when you do any of the following:

- Choose File - Release Reservation while the workbook is current.
- Close the workbook.
- End the 1-2-3 session.

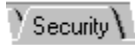
Events that affect the reservation

If a power outage or server failure temporarily severs your connection to the file server, some network software may reconnect you to the workbook automatically. However, be aware that 1-2-3 might not display the read-only indicator in the title bar, even if you have lost the reservation. To see if you still have the reservation, try to save the workbook.

You can assign read-only status to a workbook by changing its properties in the operating system. Once you do so, you can't get the workbook's reservation in 1-2-3, even if no one else has the reservation.

{button ,AL('H_GETTING_A_FILE_RESERVATION_STEPS;H_RELEASING_A_FILE_RESERVATION_STEPS;H_CHANGING_THE_FILE_RESERVATION_SETTING_STEPS;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Workbook Properties dialog box (Security tab)



Use the Security tab to protect workbook data from accidental change and to control how you share workbooks in a multi-user environment.

Choose a task

[Locking workbook contents](#)

[Unlocking a workbook](#)

[Changing the password for a locked workbook](#)

[Changing the reservation setting](#)

{button ,AL('H_PROTECTING_DATA_OVER;H_USING_A_FILE_RESERVATION_OVER',0)} [See related topics](#)

Overview: Closing and saving files

The data that you enter in a file is temporary until you save the file on disk. As you update files during a 1-2-3 session, it's a good idea to save your work frequently to prevent accidental data loss (for example, in case your computer loses power).

Saving files in different formats

You can save files in these formats:

- dBASE (.DBF)
- Lotus 1-2-3 9 Workbook (.123)
- Lotus 1-2-3 97 Workbook (.123)
- Lotus 1-2-3 OS/2 Warp 4 Workbook (.123)
- Lotus 1-2-3 (.WK4, .WK3, .WK1)
- Lotus 1-2-3 9 SmartMaster (.12M)
- Microsoft Excel 97 Workbook (.XLS)
- Microsoft Excel 5/95 Workbook (.XLS)
- Microsoft Excel 4 Worksheet (.XLS)
- Paradox (.DB)
- Text (.TXT)

Extracting data

You can extract cell data from a 1-2-3 workbook file by saving a range to a new file. For example, if you have a large workbook and want to create a smaller workbook using part of the original data, you can select the range you want and then save it as a separate file.

You can save a range of cell data in these file formats:

- dBASE (.DBF)
- Lotus 1-2-3 9 Workbook (.123)
- Lotus 1-2-3 97 Workbook (.123)
- Lotus 1-2-3 OS/2 Warp 4 Workbook (.123)
- Lotus 1-2-3 (.WK4, .WK3, .WK1)
- Lotus 1-2-3 9 SmartMaster (.12M)
- Paradox (.DB)
- Text (.TXT)

Preventing others from opening a file

You can save a workbook or SmartMaster template with a password to prevent other people from opening, printing, or viewing it.

```
{button ,AL('H_CLOSING_A_FILE_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING_AN_EXISTING_
FILE_STEPS;H_SAVING_A_RANGE_TO_A_FILE_STEPS;H_PREVENTING_OTHERS_FROM_OPENING_A_W
ORKBOOK_STEPS;H_SAVING_A_DOCUMENT_TO_AN_FTP_SERVER_ON_THE_INTERNET_STEPS;H_WOR
KING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_123_FILES_OVER;H_123_WORKING_WITH_DOS_FI
LES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_123_SETTING_A_DEFAULT_FILE
_TYPE_STEPS',0)} See related topics
```

Closing a file

To save memory and keep the workspace uncluttered, close files that you're not using. 1-2-3 removes the files from memory but doesn't delete them from disk.

1. Make sure the cell pointer is in the file you want to close.
2. From the File menu, choose Close.



If the file has never been saved or has changed since the last time you saved it, 1-2-3 asks whether you want to save the changes. Click Yes, No, or Cancel.

If the file has never been saved and you click Yes, 1-2-3 displays the Save As dialog box so that you can name and save the file.

Note If you worked with features that are new in the current release of 1-2-3 and want to retain that data, you must save the file containing that data using the file type for the current release.

If the file you close is the last active file, 1-2-3 displays an empty workspace.

{button ,AL('H_CLOSING_AND_SAVING_FILES_OVER;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING_AN_EXISTING_FILE_STEPS',0)} [See related topics](#)

Saving a new workbook

The data that you enter in a workbook is temporary until you save it.

1. Make sure the cell pointer is in the workbook you want to save.
2. From the File menu, choose Save As.



3. Enter a name in the "File name" box.
4. (Optional) Select a different file format from the "Save as type" list.

Note If you included an extension in the file name that doesn't match the selected file type, the extension overrides the file type.

5. Click Save.

If you entered a file name that already exists in the specified location, 1-2-3 asks whether to replace the data in the existing file with the data in the current file, save the existing file as a backup file, or cancel saving the current file.

For a description of the options in the Save As dialog box, see Options.

{button ,AL('H_SAVING_A_NEW_WORKBOOK_DETAILS',1)} See details

{button ,AL('H_CLOSING_AND_SAVING_FILES_OVER;H_SAVING_AN_EXISTING_FILE_STEPS',0)} See related topics

Details: Saving a new workbook

Naming a file

1-2-3 assigns a temporary name to each workbook that you create. The first file name is Untitled, the next is Untitled1, the next is Untitled2, and so on. When you save a new workbook, you must enter a file name in the Save As dialog box.

The path and file name can contain a combined total of up to 259 characters. You can use any combination of letters, numbers, - (hyphens), spaces, _ (underscores), and . (periods) in a file name. You can also use both uppercase and lowercase letters; 1-2-3 retains whatever casing you use.

Specifying a file format

1-2-3 automatically uses Lotus 1-2-3 9 Workbook (.123) as the default format for all new files unless you specify a different valid file extension or file type. To change the default format for new files, use File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab).

When you save data as a file type that 1-2-3 recognizes, 1-2-3 adds the file extension for you if you don't specify it as part of the file name. The extension begins with a period, contains up to three characters, and is based on the file type.

1-2-3 recognizes the file types and extensions listed below.

File type	Extension	Format
dBASE (DBF)	.DBF	dBASE
Lotus 1-2-3 9 Workbook (123)	.123	1-2-3 Release 9
Lotus 1-2-3 97 Workbook (123)	.123	1-2-3 97 Edition for Windows 95
Lotus 1-2-3 OS/2 Warp 4 Workbook (123)	.123	1-2-3 for OS/2 Warp 4
Lotus 1-2-3 (WK4)	.WK4	1-2-3 Releases 4 and 5 for Windows
Lotus 1-2-3 (WK3)	.WK3	1-2-3 for Windows Release 1 1-2-3 for DOS Releases 3 and 4
Lotus 1-2-3 (WK1)	.WK1	1-2-3 for DOS Release 2
Lotus 1-2-3 9 SmartMaster (12M)	.12M	1-2-3 Release 9
(not shown in the "Save as type" list)	.WT4	1-2-3 Release 5 for Windows
Microsoft Excel 97 Workbook (XLS)	.XLS	Excel Release 97
Microsoft Excel 5/95 Workbook (XLS)	.XLS	Excel Version 5.0 and Release 95
Microsoft Excel 4 Worksheet (XLS)	.XLS	Excel Version 4.0
Paradox (DB)	.DB	Paradox
Text (TXT)	.TXT	Text file

If you include an extension with the file name, 1-2-3 tries to identify the appropriate file type based on the specified extension. If 1-2-3 doesn't recognize the file extension, it adds an extension based on the selected file type.

For example, if you enter SALES.WK4 as the file name, 1-2-3 selects "Lotus 1-2-3 (WK4)" as the file type. However, if you enter SALES.ABC as the file name and select "Microsoft Excel 97 Workbook (XLS)" as the file type, 1-2-3 saves the file in Excel format as SALES.ABC.XLS.

Saving data as different 1-2-3 file types

The current release of 1-2-3 contains features that are not available in previous releases of 1-2-3. To preserve this information, you must save the workbook and specify the file type for the current release.

For example, the current release of 1-2-3 supports 65,536 rows, whereas previous 1-2-3 releases support 8,192 rows. If you enter data below row 8192 and then try to save the data as a 1-2-3 97 .123 workbook, 1-2-3 prompts you to save using the file type for the current release.

To save the file as a 1-2-3 97 .123 workbook, you must delete all data below row 8192 and all formulas that reference cells below row 8192. If you specified a range in a dialog box that retains the range setting and the range references data below row 8192, you must reset the range in the dialog box so that it references data above row 8192.

If you use a new feature such as a web table above row 8192, and then save the file as a 1-2-3 97 .123 workbook, 1-2-3 saves the file but warns you that the data associated with the new feature was not retained. You can preserve the data by saving the file again and specifying the file format for the current release.

To save a file that contains a new 1-2-3 9 script event as a 1-2-3 97 .123 workbook, do the following. First delete the script event, and then save the workbook using the file type for the current release. Then close the workbook, reopen it, and save it as a 1-2-3 97 .123 workbook.

If you try to save a workbook as a .WK4, .WK3, .WK1, or .WT4 file, 1-2-3 warns you that information may be lost. Do one of the following:

- To save the workbook in the selected format, click OK.
- To save the workbook using the file type for the current release, click Cancel and then choose File - Save As.

If you don't want to see this warning each time you save a workbook in an earlier 1-2-3 file format, use File - 1-2-3 Preferences (General tab) to turn it off.

If you save a workbook as a 1-2-3 Release 5 for Windows SmartMaster template (.WT4) file, 1-2-3 appends a .WT4 extension to the file name but treats the template as a standard workbook. You cannot use File - New Workbook to create a new workbook based on a .WT4 file. The New Workbook dialog box lists titles of .12M SmartMaster templates only.

Saving data as an Excel file

When you save data as an Excel file, 1-2-3 preserves the cell data but does not retain other features such as charts, maps, and graphic objects. If the workbook contains any @functions that can't be translated or links to other files, 1-2-3 records the information in a log file.

If the file contains data below row 16384, you cannot save the file as an Excel 5/95 or Excel 4 workbook; when you choose File - Save As, specify a file type that allows data below row 16384, such as Microsoft Excel 97 Workbook or Lotus 1-2-3 9 Workbook.

Saving data as a text file

When you save data as a text file, 1-2-3 saves text and numbers in cells only. If a cell contains a formula, 1-2-3 saves the formula result in the text file.

You cannot save range names, styles, or versions (except for those currently displayed in the sheet). In addition, objects that appear on top of cells, such as charts, maps, or other graphic objects are not retained.

When you save data as a text file, numbers or text that don't fit in the specified column width may be lost. For best results, use a monospace font such as Courier and check that the columns are wide enough to display the data in the sheet. 1-2-3 adds spaces before or after the data in the resulting text file to align the columns of data.

{button ,AL('H_SAVING_A_NEW_WORKBOOK_STEPS',1)} Go to procedure

{button ,AL('H_OPTIONS_SAVE_AS_REF;H_WORKING_WITH_123_FILES_OVER;H_123_WORKING_WITH_DOS_FILES_OVER;H_123_WORKING_WITH_OS2_FILES_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_DBASE_FILES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_123_SETTING_A_DEFAULT_FILE_TYPE_STEPS',0)} See related topics

Saving an existing file

If you make changes to an existing file, you must save the file to make the changes permanent.

1. Make sure the cell pointer is in the file you want to save.
2. From the File menu, choose Save.



Tip To save a copy of the file under a different name, choose File - Save As and then enter a new name in the "File name" box.

{button ,AL(`H_SAVING_AN_EXISTING_FILE_DETAILS',1)} [See details](#)

{button ,AL(`H_CLOSING_AND_SAVING_FILES_OVER;H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Details: Saving an existing file

Saving files from previous 1-2-3 releases

If you worked with features that are new in the current release of 1-2-3 and want to retain that data, you must use File - Save As and specify the file type for the current release.

For example, the current release of 1-2-3 supports 65,536 rows, whereas previous 1-2-3 releases support 8,192 rows. You can open a 1-2-3 97 .123 workbook in the current release, and then enter data below row 8192. However, when you choose File - Save, 1-2-3 prompts you to save the workbook using the file type for the current release.

To save the 1-2-3 97 .123 workbook, you must delete all data below row 8192 and all formulas that reference cells below row 8192. If you specified a range in a dialog box that retains the range setting and the range references data below row 8192, you must reset the range in the dialog box so that it references data above row 8192.

If you use a new feature such as a Web query above row 8192 in a 1-2-3 97 .123 workbook, and then save the workbook, 1-2-3 saves the workbook but warns you that the data associated with the new feature was not retained. You can preserve the data by saving the file again and specifying the file format for the current release.

To save a 1-2-3 97 .123 workbook that contains a new 1-2-3 Release 9 script event, do the following. First delete the script event, and then save the workbook using the file type for the current release. Then close the workbook, reopen it, and choose File - Save As to save it as a 1-2-3 97 .123 file.

When you save a 1-2-3 Release 5 for Windows SmartMaster template (.WT4) file, 1-2-3 saves the template with its .WT4 file extension but treats the template as a standard workbook. You cannot use File - New Workbook to create a new workbook based on a .WT4 file. The New Workbook dialog box lists titles of .12M SmartMaster templates only.

When you save a .WK4, .WK3, .WK1, or .WT4 file, 1-2-3 warns you that information in the file may be lost if you save the file in its original format. To ensure that the information is not lost, you must save the file using the file format for the current release.

Do one of the following:

- To save the data in the selected format, click OK.
- To save the data using the file type for the current release, click Cancel and then choose File - Save As.

If you don't want to see this warning each time you save a workbook in an earlier 1-2-3 file format, use File - 1-2-3 Preferences (General tab) to turn it off.

Saving Excel files

When you save an Excel file, 1-2-3 preserves the cell data but does not retain other features you may have added in 1-2-3 such as charts, maps, and graphic objects. If the file contains any @functions that can't be translated or links to other files, 1-2-3 records the information in a log file.

To save changes to an Excel .XLW bound workbook file in 1-2-3, you must save the file either as an Excel .XLS file or as one of the 1-2-3 file types.

You can open an Excel 5/95 or Excel 4 workbook in 1-2-3, and then enter data below row 16384. However, you cannot save the file in its current format. Use File - Save As to save the file using a file type that allows data below row 16384.

{button ,AL('H_SAVING_AN_EXISTING_FILE_STEPS',1)} Go to procedure

{button ,AL('H_WORKING_WITH_123_FILES_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_DBASE_FILES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_123_WORKING_WITH_DOS_FILES_OVER',0)} See related topics

Saving a range as a new file

You can extract cell data from the current workbook by saving a range as a separate file.

1. Select the range that contains the data you want to extract.
2. From the File menu, choose Save As.



3. Enter a name in the "File name" box.

Note You must enter a different file name than that of the current workbook.

4. (Optional) Select a different file format from the "Save as type" list.
5. Select "Save selected range only."
6. Click Save.

If you specified a 1-2-3 file type, the Save Selected Range dialog box appears. Select "Keep formulas" or "Convert formulas to values," and click OK.

For a description of the options in the Save As dialog box, see Options.

{button ,AL('H_SAVING_A_RANGE_TO_A_FILE_DETAILS',1)} See details

{button ,AL('H_CLOSING_AND_SAVING_FILES_OVER;H_123_CONVERTING_A_RANGE_TO_AN_HTML_TABLE_STEPS;H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_STEPS',0)}
See related topics

Details: Saving a range as a new file

Saving ranges in different formats

You can save a range of cell data in these file formats:

- dBASE (.DBF)
- Lotus 1-2-3 9 Workbook (.123)
- Lotus 1-2-3 97 Workbook (.123)
- Lotus 1-2-3 OS/2 Warp 4 Workbook (.123)
- Lotus 1-2-3 (.WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 9 SmartMaster (.12M)
- Paradox (.DB)
- Text (.TXT)

1-2-3 does not save any graphic objects, charts, maps, or embedded objects in the selected range. If the range includes any query tables, Web tables, or datalink tables, 1-2-3 retains the table data in the cells but the table borders and links are lost.

When you save a range as a .WK3 or .WK1 workbook, 1-2-3 saves only the cell data, number format and alignment settings, and range names.

You cannot create a .WK1 workbook by saving a range from an active workbook that contains multiple sheets.

You cannot save a range in either a locked workbook or a locked sheet to a different file.

Preserving cell comments and scripts

If you save a range that contains cells with either attached cell comments or scripts, you must save the range as either a .123 workbook or a .12M SmartMaster template to retain the comments and scripts. If you save the range as a different file type, the data will be lost.

Preserving range names

When you save a range as a 1-2-3 workbook or SmartMaster template, 1-2-3 retains only those range names that refer to ranges completely within the selected range. If a range name refers to a range that either overlaps or is outside the selected range, 1-2-3 converts the range name to the appropriate range address, relative to the top left cell of the selected range.

Saving a range that contains formulas

When you save a range that contains formulas, follow these guidelines:

- Be sure to include all the data referred to by the formulas. If the formulas reference a range name, be sure to include the entire named range.
- Do not save a range of data that contains formulas that reference 3D ranges to a workbook that contains fewer sheets than are in the 3D range.
- If the formulas reference data below row 8192, be sure to save the range using the file type for the current release.

Saving a range of data that contains formulas that reference cells in rows, columns, or sheets outside the selected range may produce unexpected results.

If you want to save a range of data that contains formula values and the Calc button appears in the status bar, press F9 (CALC) to update the results of the formulas before you save the range.

Saving a range as a dBASE or Paradox file

When you save a range as a dBASE (.DBF) or Paradox (.DB) file, you must select the range containing the database table you want to save. 1-2-3 saves only the data in the selected range. No styles, formats, graphic objects, charts, maps, or embedded objects are saved.

{button ,AL('H_SAVING_A_RANGE_TO_A_FILE_STEPS',1)} Go to procedure

{button ,AL('H_OPTIONS_SAVE_AS_REF',0)} See related topics

Save As/Save Copy As dialog box

Use this dialog box to specify options for saving data.

If you're editing a 1-2-3 Workbook object that's embedded in another application, the Save As command changes to Save Copy As. You can use this command to save a copy of the workbook as any supported file type.

Choose a task

[Saving a new workbook](#)

[Saving a range as a new file](#)

[Preventing others from opening a workbook](#)

[Removing restrictions on opening a workbook](#)

[Saving a workbook to an FTP server on the Internet](#)

[Saving a file to a Notes database](#)

For a description of the options in this dialog box, see [Options](#).

```
{button ,AL('H_CLOSING_AND_SAVING_FILES_OVER;H_WORKING_WITH_123_FILES_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_DBASE_FILES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_123_SAVE_TO_NOTES_DB_OVER',0)} See related topics
```

Options: Save As/Save Copy As dialog box

Save in

Displays the current directory and shows where it fits in the hierarchy on your computer. Below it is a list of directories and files in the selected location. The files listed match the type selected in the "Save as type" list.

File name

Lets you enter a path and file name containing a combined total of up to 259 characters. You can use any combination of letters, numbers, - (hyphens), spaces, _ (underscores), and . (periods) in a file name. 1-2-3 retains uppercase and lowercase characters.

If you include a file extension that 1-2-3 recognizes and the extension doesn't match the file type selected in the "Save as type" list, the file extension overrides the selected file type. If you include a file extension that 1-2-3 doesn't recognize, 1-2-3 adds an extension based on the selected file type.

Save as type

Lists the formats in which you can save the current file.

1-2-3 automatically uses Lotus 1-2-3 9 Workbook (.123) as the default format for all new files unless you specify a different valid file extension or file type in the dialog box. To change the default format for new files, use File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab).

Description

Lets you enter text (up to 256 characters) to describe the file contents.

If the file is a workbook, the text that you enter in the "Description" box appears when you select the file in the Welcome to 1-2-3 dialog box or Open dialog box.

If the file is a SmartMaster template, the text that you enter in the "Description" box appears when you select the file in the Welcome to 1-2-3 dialog box or New Workbook dialog box.

You can also view the description on the General tab in the Workbook Properties dialog box.

Note You can only specify a description for 1-2-3 workbooks (.123, .WK4, .WT4) and SmartMaster templates (.12M). If you enter a description and save the file as any other file type, the description is not saved.

Save selected range only

Lets you extract data from the current file and save it as a separate file in these formats: 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4), 1-2-3 SmartMaster (.12M), Text (.TXT), dBASE (.DBF), and Paradox (.DB). If you didn't select the range before choosing File - Save As, you can click the text box and then enter the range address. As an alternative, click the range selector to temporarily remove the dialog box and then select the range.

Password

Lets you assign a password to the current workbook or SmartMaster template. Only users who know the password can open, print, or view the protected file.

You can only assign a password to a 1-2-3 workbook file (.123, .WK4, .WK3, .WK1, .WT4) or SmartMaster template (.12M).

Lotus Notes

Saves the current file as an attachment to a document in a Lotus Notes database.

Internet

Saves the current file on the Internet.

Saving changes

Choose a task

Closing a file

Ending 1-2-3

Saving a dBASE or Paradox file

1. Make sure the cell pointer is in the file you want to save.
2. From the File menu, choose Save As.



3. Enter a name in the "File name" box.
4. Select "dBASE (DBF)" or "Paradox (DB)" as the file type.

Note If you included an extension in the file name that doesn't match the selected file type, the extension overrides the file type.

5. Click Save.

If you entered a file name that already exists in the specified location, 1-2-3 prompts you for more information.

6. Choose one of the following options:

OK -- Replaces the data in the existing file on disk with the data in the current file.

Cancel -- Returns you to 1-2-3 without saving the file.

For a description of the options in the Save As dialog box, see [Options](#).

{button ,AL(`H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER',0)} [See related topics](#)

Adding a title and description

You can add a title and descriptive text to workbook files (.123, .WK4, .WT4) and SmartMaster templates (.12M).

1. Make sure the file you want is the current workbook.
2. From the File menu, choose Workbook Properties.



3. Click the General tab in the Workbook Properties dialog box.
4. Enter a title in the "Title" box.
5. Enter comments in the "Description" box.
If needed, press ENTER to start a new line.
6. Click OK.

{button ,AL('H_OPTIONS_WORK_PROP_TABGENERAL_REF',0)} [See related topics](#)

Options: Workbook Properties dialog box (General tab)

File name

Shows the name of the current workbook file or SmartMaster template.

Location

Shows where the current workbook file or SmartMaster template is stored.

Title

Lets you assign titles to workbook files (.123, .WK4, .WT4) and SmartMaster templates (.12M). The title is separate from the file name which appears in the title bar of the sheet window.

Workbook titles are visible only on the General tab in the Workbook Properties dialog box. You see SmartMaster template titles when you view the list of available templates in the Welcome to 1-2-3 dialog box or New Workbook dialog box.

Subject

Lets you exchange information between 1-2-3 and Lotus Notes. Notes then uses the information in the "Subject" field of a Notes document.

Keywords

Helps identify the workbook file and can supply categories to a Notes form. If you plan to use the keywords with Notes/FX, separate them with a , (comma).

Revision history

Lets you keep track of changes made to the file.

Description

Lets you enter text (up to 256 characters) to identify the file contents.

If the file is a workbook, the text that you enter in the "Description" box appears when you select the file in the Welcome to 1-2-3 dialog box or Open dialog box.

If the file is a SmartMaster template, you see the description when you select the template file in the Welcome to 1-2-3 dialog box or New Workbook dialog box.

You can also view and edit the description in the Save As dialog box.

Note You can only specify a description for 1-2-3 workbooks (.123, .WK4, .WT4) and SmartMaster templates (.12M). If you enter a description and save the file as any other file type, the description is not saved.

Tracking changes in a workbook

You can add notes about changes made to a workbook. 1-2-3 also records other information, including who last edited the workbook and when, and total number of revisions.

1. Make sure the file you want is the current workbook.
2. Choose File - Workbook Properties.



3. Click the General tab in the Workbook Properties dialog box.
4. Enter comments in the "Revision history" box.
If needed, press ENTER to start a new line.
5. (Optional) To see information 1-2-3 records about the workbook, click the Statistics tab in the Workbook Properties dialog box.
6. Click OK.

{button ,AL(`H_OPTIONS_WORK_PROP_TABGENERAL_REF',0)} [See related topics](#)

Viewing workbook file statistics

You can display information about a workbook such as size, number of sheets, when it was created and last modified, and recalculation settings.

1. Make sure the file you want is the current workbook.
2. From the File menu, choose Workbook Properties.



3. Click the Statistics tab in the Workbook Properties dialog box.
4. After you finish viewing the information, click OK.

{button ,AL('H_VIEWING_FILE_STATISTICS_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_STEPS',0)} [See related topics](#)

Details: Viewing workbook statistics

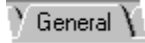
You can't edit the information displayed on the Statistics tab in the Workbook Properties dialog box.

To add information such as a description of the file contents or notes about revisions, use File - Workbook Properties (General tab).

{button ,AL('H_VIEWING_FILE_STATISTICS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_EDITING_THE_FILE_DESCRIPTION_STEPS;H_TRACKING_CHANGES_IN_A_FILE_STEPS',0)}
[See related topics](#)

Workbook Properties dialog box (General tab)



Use the General tab in the Workbook Properties dialog box to identify files, track changes, and transfer data between 1-2-3 and Lotus Notes using Notes/FX.

Choose a task

[Adding a title and description](#)

[Tracking changes in a workbook](#)

[Adding Notes/FX fields to a Notes form](#)

For a description of the options in this dialog box, see [Options](#).

{button ,AL('H_EXCHANGING_DATA_BETWEEN_123_AND_NOTES_OVER',0)} [See related topics](#)

Ways to perform tasks

In 1-2-3 there are often several ways to perform a task. These include:

- Choosing a menu command
- Clicking one of the [SmartIcons](#)
- Using the [InfoBox](#)
- Using the status bar
- Using a [keyboard shortcut](#)

For example, there are several ways to make cell contents bold. You must first click the cell to select it, and then you can use any one of these methods to perform the task:

- Click one of the SmartIcons



- In the Range InfoBox, use the Text Format tab



- In the status bar, click the Bold button



- On the keyboard, press CTRL+B

Using the menu or the SmartIcons

You can always choose a menu command, but if the equivalent icon is showing, clicking the icon is faster than choosing a menu command.

Using the InfoBox or the status bar

You can use the status bar to make single changes. However, if you want to make several changes at once or you want to format a [workbook](#), using the InfoBox is easier. Changes you make using the InfoBox or the status bar happen instantly, so you can easily try out different options.

Using the mouse or the keyboard

In most cases, 1-2-3 allows you to use either the mouse or the keyboard to complete a task. There are, however, some cases in which you must use the mouse, such as using drag and drop to move or copy data.

Using shortcut menus

Click the right mouse button on any object, or while editing a cell, to display the shortcut menu.

```
{button ,AL('H_USING_MENUS_OVER;H_USING_THE_INFOBOX_STEPS;H_USING_THE_STATUS_BAR_OVER;  
H_SHORTCUT_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_STYLE_KEYS_OVER;H_USING_SMARTICONS_  
OVER',0)} See related topics
```


Undoing a command

You can often undo a command or other action by performing Undo immediately after the command or action. For example, you can undo the effects of editing a cell or moving data.

To undo an action, choose Undo from the Edit menu.



Note If Undo is turned off, you cannot undo a command or action. To turn Undo on or off, choose User Setup from the File menu, then choose 1-2-3 Preferences (General tab).

You cannot undo some commands and actions. See details.

{button ,AL('H_UNDOING_A_COMMAND_DETAILS',1)} [See details](#)

{button ,AL('H_CANCELING_A_COMMAND_STEPS',0)} [See related topics](#)

Details: Undoing a command

How Undo works in 1-2-3

If you changed several settings in a dialog box, choosing Edit - Undo will undo all of the changes.

If you changed several settings in the InfoBox, choosing Edit - Undo will undo the most recent change.

Some tasks cannot be undone

Commands and actions that cannot be undone include:

- Individual edits while editing cell contents
- Moving or copying sheets
- Creating a Web table or a query table
- Printing
- Saving a file
- Running a macro
- Running a script
- Copying data to the Clipboard
- Recalculating formulas by pressing F9 (CALC) or using Edit - Manage Links
- Moving the cell pointer
- Using Edit - Undo or CTRL+Z

Some tasks clear the Undo buffer

After you do any of the following tasks, you cannot undo any previous actions:

- Printing
- Saving a file
- Running a macro
- Running a script

{button ,AL('H_UNDOING_A_COMMAND_STEPS',1)} [Go to procedure](#)

Canceling a command

At any point, while you are making a menu choice or using a dialog box, you can cancel the command. When you cancel a command, 1-2-3 closes the dialog box or menu without completing the command.

To cancel a command from a menu, move the mouse pointer off of the menu or press ESC.

To cancel a command from a dialog box, click Cancel, press ESC, or click the close icon



in the upper right corner of the title bar.

Note If a dialog box has a Done button instead of a Cancel button, you cannot cancel the command. However, you may be able to undo it.

{button ,AL('H_UNDOING_A_COMMAND_STEPS;',0)} [See related topics](#)

Overview: Data Query Add-In (DQA)

The Data Query Add-In (DQA) offers data query functionality that is similar to that in 1-2-3 Release 5. When you load the add-in, you will be able to open 1-2-3 Release 5 files that contain query tables and work with them much as you did in 1-2-3 Release 5. You can also create new DQA query tables.

Once you load the Data Query Add-In into memory, the Query command appears on the main menu each time you start 1-2-3 until you unload the add-in. For more information about add-ins, see [Overview: Add-ins](#).

What you can do with DQA

DQA lets you query and manipulate data in database tables. Specifically, you can:

- Create a [DQA query table](#), which contains the records you extract from a 1-2-3 database table or an external database table.
- Find [records](#) in a 1-2-3 or external database table that meet criteria you specify.
- Add new records to a database table.
- Delete records from a database table that meet criteria you specify.
- Create a cross tabulation table, or [crosstab](#), to see relationships between different kinds of data.
- Create a new table in an external database.
- Send commands to an external database.

Caution You cannot use Edit - Undo to reverse actions taken with DQA, including changes that you make to data in the database table.

What is a DQA query table?

A DQA query table contains a copy of selected records from a source database table.

Database table

Use a query table to extract records from a database table

Query table

ID	NAME	DEPT	SALARY
1964	Anton	220	27500
1777	Azibad	510	62500
3350	Baker	420	46500
4030	Burns	200	45000
5076	Caesar	210	65000
5013	Chen	210	90000
4791	Dabarrett	210	75000
5151	Donovan		
3097	Ferguson		
1372	Green		
1773	Hagerty		
4322	Hayward		
2165	Hughes		
2390	Johnson		
2305	Loften	220	40000
4833	Love	500	72000
2681	McLaughlin	420	56500
2453	Morgan	410	
3455	No		

ID	NAME	DEPT	SALARY
5076	Caesar	210	65000
5013	Chen	210	90000
4791	Dabarrett	210	75000
3455	Ng	210	37600
5080	Riley	210	25500

You create a query table to find specific records. The query table lets you summarize and perform calculations on the selected database data without interfering with the original records. However, because the query table is linked to the database table, you can use the query table to edit the records or delete records from the database table.

Working with query tables from previous releases of 1-2-3

When you load the Data Query Add-In, you can work with 1-2-3 Release 5 files that contain query tables. You can also work with 1-2-3 97 files that contain query tables created with the Query Table Add-In. In files of this type, each query table appears as a simple range with a border around it, but you can select and work with it as a query table.

Other ways to work with database tables

For other powerful ways to work with database tables, 1-2-3 works with Lotus Approach to help you manage and

analyze data contained in a 1-2-3 or an external database. 1-2-3 and Approach are installed together when you install 1-2-3. When you use the Create - Database commands in 1-2-3, you can access Approach to create query tables, forms, reports, dynamic crosstabs, mailing labels, and form letters.

For more information, see [Overview: Working with 1-2-3 and Approach](#).

{button ,AL('H_123_LOADING_THE_DATA_QUERY_ADDIN_STEPS;H_123_GETTING_READY_TO_CREATE_A_D
QA_QUERY_TABLE_STEPS;H_123_SELECTING_A_DQA_QUERY_TABLE_STEPS;H_QUDT_STEPS;H_TDCE
_STEPS;H_123_DQA_CROSSTABS_OVER;;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} [See
related topics](#)

Loading the Data Query Add-In (DQA)

To use the Data Query Add-In (DQA) to work with database tables, you have to load it into memory. After you load DQA, it will be loaded into memory each time you start 1-2-3 until you unload it.

Want the big picture? See [Overview: Data Query Add-In \(DQA\)](#).

1. From the File menu, choose Add-Ins, and then choose Manage Add-Ins.

The Manage Add-Ins dialog box lists the add-in files that are registered with 1-2-3.

Tip If DQAUI.12A does not appear in the Manage Add-Ins list, click Register, select DQAUI.12A, then click Open. The Register Add-Ins dialog box lists the add-in files that 1-2-3 stores in the ADDINS directory.

2. Click DQAUI.12A to mark it for loading.
3. Click Done.

The Query menu appears on the 1-2-3 main menu. Now, each time you start 1-2-3, the Query menu will be available.

Note For the Data Query Add-In to work, the "Run file Opened scripts, autoexec macros" option must be selected on the General panel in the 1-2-3 Preferences dialog box. By default, this option is selected. To make sure this option is selected, choose File - User Setup - 1-2-3 Preferences.

{button ,AL('H_123_UNLOADING_THE_DATA_QUERY_ADDIN_STEPS;H_ADDINS_OVER;';0)} [See related topics](#)

Unloading the Data Query Add-In (DQA)

After you load the Data Query Add-In, DQA is loaded into memory and the Query menu is available each time you start 1-2-3. You must unload DQA to run 1-2-3 without the add-in.

1. From the File menu, choose Add-Ins, and then choose Manage Add-Ins.

The Manage Add-Ins dialog box lists all registered add-ins. Add-ins marked for loading have a check mark next to them.

2. Click DQAUI.12A to remove the check mark.
3. Click Done.

Note When you unload DQA, existing query tables remain in the sheet as unnamed ranges, but they are no longer linked to the source database table(s). If you reload DQA, 1-2-3 recognizes the ranges containing previously defined query tables as query tables and restores the links.

{button ,AL('H_123_LOADING_THE_DATA_QUERY_ADDIN_STEPS;H_ADDINS_OVER;H_TD_OVER',0)} See
related topics

Working with the Data Query Add-In (DQA)

The Data Query Add-In (DQA) is included in this release of 1-2-3 to give you data query functionality that is similar to that in 1-2-3 Release 5. When you load DQA, you can work with query tables created in 1-2-3 Release 5 or the Query Table Add-In from 1-2-3 97. You can also create new query tables and crosstabs.

Want the big picture? See [Overview: Data Query Add-In \(DQA\)](#).

Loading the Data Query Add-In

If the Query command does not appear on the main menu, you need to load DQA. See [Loading the Data Query Add-In](#).

Creating a DQA query table

With a DQA query table, you can analyze data from a [1-2-3 database table](#) or an [external database table](#). The query table is linked to the source database table so that you can get updated information from and send changes to the source data. You can also change the way the query table is set up to look at different subsets of the data or to look at the data differently. DQA query tables are saved with the workbook.

For more information, see [Creating a DQA query table](#).

Selecting a DQA query table

Before you can work with a query table, you need to use Query - Select Query Table to select it. For more information, see [Selecting a DQA query table](#).

Changing the data in a DQA query table

You can change the data that appears in the query table in a number of ways:

- To change which records appear, see [Changing the criteria for a DQA query table](#).
- To determine which fields appear, see [Changing the fields in a DQA query table](#).
- To add a computed column to the query table, see [Adding a computed column to a DQA query table](#).
- To show aggregate summaries in a query table, see [Creating aggregate summaries in a DQA query table](#).
- To display the unique records from the database table, see [Showing unique records in a DQA query table](#).
- To retrieve records from a different database table using the same criteria, see [Selecting a different database table](#).
- To update the query table to reflect any changes to criteria, options, aggregate, field names, or sort order, see [Refreshing a DQA query table](#).
- To include data from a related database table in the query table, see [Joining database tables with DQA](#).

Changing the appearance of a DQA query table

You can change the way in which the data appears in the query table.

- To put records in an order you specify, see [Sorting a DQA query table](#).
- To change a field name, see [Showing an alias field name in a DQA query table](#).
- To rename a query table, see [Renaming a DQA query table](#).
- To delete a query table, see [Deleting a DQA query table](#).

Using the query table to modify records in the source database table

With DQA, you can make changes to the data in the query table, then update the source database table to reflect these changes.

- To permanently delete records in the source database table, see [Deleting records with DQA](#).
- To add new records to the source database table, see [Appending records with DQA](#).
- To change the records in the source database table to reflect changes you have made to the records in the query table, see [Updating a database table with DQA](#).

Connecting to external database tables

You can use DQA to connect with, query, and manipulate data in external database tables.

- To connect with an external database table so that you can work with its records, see [Connecting to an external database table with DQA](#).
- To set up a new table in an external database, see [Creating an external database table with DQA](#).
- To send [SQL commands](#) to an external database table, see [Sending SQL commands with DQA](#).

Working with DQA crosstabs

You can create a cross-tabulation table, or [crosstab](#), to see the relationship between different kinds of data. For more information about creating crosstabs, see [Overview: DQA Crosstabs](#).

```
{button ,AL('H_123_DQA_CROSSTABS_OVER;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_123_COMPARING_THE_DATA_QUERY_ADDIN_DQA_TO_123_RELEASE_5_OVER;H_123_WORKING_WITH_123_AND_APPROACH_OVER',0)} See related topics
```

Comparing the Data Query Add-In (DQA) with 1-2-3 Release 5

How the Data Query Add-In differs from 1-2-3 Release 5

The Data Query Add-In (DQA) shares many features of the query table commands and options in 1-2-3 Release 5. However, there are some significant differences, which are described in the sections below. The differences are organized by dialog box.

Set Criteria dialog box

To open the Set Criteria dialog box, choose Query - Set Criteria.

In the DQA Set Criteria dialog box, the Clear button removes the entire criteria statement. You cannot clear one statement at a time, as you could in 1-2-3 Release 5, nor can you drag statements to change their logical operators. However, you can edit the criteria formula directly in the box, as long as you follow the syntax for 1-2-3 formulas.

To limit the number of records, choose Query - Set Options. (In 1-2-3 Release 5, you set the limit for records in the Set Criteria dialog box.)

After you have set criteria, the "Field" and "Value" lists in the Set Criteria dialog box are unavailable until you click And or Or, or clear the criteria. The "Value" list will read "Sample Data" until you select a field in the "Field" list.

Choose Fields dialog box

To open the Choose Fields dialog box, choose Query - Choose Fields.

To assign an alias to a field name, click Show Field As. When you assign an alias, the alias appears in the query table. (In 1-2-3 Release 5, you assign an alias name with Query - Show Field As.)

To clear all fields, hold down SHIFT and click the first and last field names to select all the fields in the "Selected fields" list, and then click Clear. (In 1-2-3 Release 5, there is a Clear All button.)

Sort dialog box

To open the Sort dialog box, choose Query - Sort.

The Reset button resets all sorts and closes the dialog box. (In 1-2-3 Release 5, Reset does not close the dialog box).

Aggregate dialog box

To open the Aggregate dialog box, choose Query - Aggregate.

The Reset button resets all aggregates for the current query and closes the dialog box. (In 1-2-3 Release 5, Reset does not close the dialog box).

Query Name dialog box

To open the Query Name dialog box, choose Query - Name.

In DQA, to rename a query table, select the name of the query table you want to change in the "Existing query table" box and type a new name in the "Query name" box.

In 1-2-3 Release 5, you can rename only the selected query table.

Set Options dialog box

To open the Set Options dialog box, choose Query - Set Options.

In the Set Options dialog box, you can set the limit for the number of records displayed in the query table. In 1-2-3 Release 5, the "Limit records" check box is in the Set Criteria dialog box.

In DQA, you can also set the record limit when you create a query table, in the New Query Assistant dialog box.

Show SQL dialog box

To open the Show SQL dialog box, choose Query - Show SQL.

If you want to copy just a portion of an SQL statement, highlight the portion you want to copy and press CTRL+C to copy the string to the Clipboard. Click Cancel, and then press CTRL+V to paste the string. If you highlight a portion of the SQL statement in the Show SQL dialog box, then click the Copy button, you copy the entire string. (In 1-2-3 Release 5, you can only copy the entire string.)

Join dialog box

To open the Join dialog box, choose Query - Join.

Note In DQA, you must type the join criteria and operators in the Join dialog box. You can create a query with multiple joins. However, when you choose Query - Join again, the Join dialog box will display only the first two join statements. To see the complete join criteria, choose Query - Show SQL. If you need to make a change, you will need to retype the statements for additional joins.

Updating a database table

In 1-2-3 Release 5, you choose Query - Update Database Table to update a database table. In DQA, you choose Query - Set Options. For more information, see [Updating a database table with DQA](#).

{button ,AL('H_RELEASE_5_COMMAND_EQUIVALENTS_OVER;H_TD_OVER',0)} [See related topics](#)

Creating a DQA query table

This task consists of the following parts:

- 1** **Creating a DQA query table**
- 2** [Selecting the database table to query](#)
- 3** [\(Optional\) Choosing fields for the DQA query table](#)
- 4** [\(Optional\) Setting criteria to select the records](#)
- 5** [Adding the DQA query table to the sheet](#)

Creating a DQA query table

A query table created with the Data Query Add-In (DQA) lets you work with copies of records from a [1-2-3 database table](#) or an [external database table](#). You can analyze, organize, and print data, as well as add, delete, and edit records in the source database table.

Getting ready to create a DQA query table

Creating a DQA query table is a five-step process, including the steps you must take before you create the query table.

1. Before you create a DQA query table, you must load the Data Query Add-In. If the Query command does not appear on the main menu, DQA is not loaded.

For more information, see [Loading the Data Query Add-In](#).

2. Locate the database table you want to work with.

For more information about 1-2-3 database tables, see [Creating a 1-2-3 database table](#).

3. If you want to work with data from outside 1-2-3, connect to the external database table.

Tip Take note of the table's name when you connect to it because you need to type it when you create the query table.

For more information about connecting to an external database table, see [Connecting to an external database table with DQA](#).

4. Decide where you want to place the query table.

Tip To avoid writing over any data, create a new sheet to hold the query table.

{button ,AL('H_TD_OVER;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_QN_STEPS;H_123_DELETIN
G_A_DQA_QUERY_TABLE_STEPS;H_QJ_STEPS',0)} [See related topics](#)

Creating a DQA query table

This task consists of the following parts:

- 1** [Creating a DQA query table](#)
- 2** **Selecting the database table to query**
- 3** [\(Optional\) Choosing fields for the DQA query table](#)
- 4** [\(Optional\) Setting criteria to select the records](#)
- 5** [Adding the DQA query table to the sheet](#)

Selecting the database table to query

You can use the Data Query Add-In (DQA) to create a DQA query table that lets you work with records from a [1-2-3 database table](#) or an [external database table](#). The table you use is the source database table for the query table.

1. If you haven't already, complete part 1 of this task.
2. From the Query menu, choose New Query.
3. To select the database table you want to query, do one of the following:
 - To query an unnamed 1-2-3 database table, use the [range selector](#) to select the range that contains the table.
 - To query a 1-2-3 database table contained in a [named range](#), type the range name or use the range selector, then use the [navigator](#) to select the name of the table you want to query.
 - To query an external database table, type the name you assigned to the table when you connected to it.
4. (Optional) Enter a name for the query table following the standard [naming conventions](#).

Note If you do not enter a name, 1-2-3 supplies a default name for the query table.

{button ,AL('H_TD_OVER;H_DB_CREATING_A_123_DATABASE_TABLE_STEPS;H_DB_WORKING_WITH_DATA
BASE_TABLES_OVER',0)} [See related topics](#)

Creating a DQA query table

This task consists of the following parts:



Creating a DQA query table



Selecting the database table to query

3 (Optional) Choosing fields for the DQA query table



(Optional) Setting criteria to select the records



Adding the DQA query table to the sheet

Choosing fields for the DQA query table

Choosing fields for the DQA query table is an optional step. If you do not choose fields, the Data Query Add-In (DQA) includes all the fields in the source database table in the order in which they appear in that table. The Choose Fields button lets you choose fields to exclude and lets you change the order in which fields appear in the DQA query table.

1. If you haven't already, complete parts 1 and 2 of this task.
2. In the New Query Assistant, click Choose Fields.
The "Selected fields" box lists all of the fields that will appear in the query table, in the order in which they will appear.
3. To remove a field, select it in the "Selected fields" box and click Clear.
4. To change the position of a field in the query table, select it in the "Selected fields" box, and then click the up or down arrow until the field is in the position you want.
5. Click OK to return to the New Query Assistant dialog box.

Note Changes you make to the fields in the Choose Fields dialog box do not affect the source database table. After you create the query table, you can add fields that you excluded using Choose Fields.

{button ,AL('H_TD_OVER',0)} See related topics

Creating a DQA query table

This task consists of the following parts:



Creating a DQA query table



Selecting the database table to query



(Optional) Choosing fields for the DQA query table

4 (Optional) Setting criteria to select the records



Adding the DQA query table to the sheet

Setting criteria to select the records

Setting the criteria to select which records from the source database table will appear in the DQA query table is an optional step. If you do not set criteria, DQA includes all the records in the source table, up to the number of records specified by the limit number in the New Query Assistant.

If you know that you will only need to work with certain records, you can select them here. After you create the DQA query table, you can change the criteria to show different records.

1. If you haven't already, complete parts 1, 2, and (optionally) part 3 of this task.
2. In the New Query Assistant dialog box, click Set Criteria.
3. Specify the criteria you want the records in the table to meet.

For example, if you want the records of everyone in the Sales department, the criterion is DEPT="Sales", where DEPT is the field, = is the operator, and Sales is the value.

- a. Select the field from the "Field" box.
- b. Select the operator.
- c. Specify the value in the "Value" box.

You can select a displayed value or enter a label, value, or formula.

Tip For more information about writing criteria statements, see Details: Setting criteria to select the records.

4. To further limit the records to find, click And and repeat step 3.
5. To expand the number of records to find, click Or and repeat step 3.
6. To change the criteria, do one of the following:
 - Click Clear to delete all the criteria and start again.
 - Edit the criteria by typing in the "Criteria statement" box. For example, you may need to add parentheses () to group the criteria properly.
7. Click OK to return to the New Query Assistant dialog box.

{button ,AL('H_QSC_DETAILS',1)} See details

{button ,AL('H_TD_OVER;H_QBB1_STEPS;H_123_LISTING_SAMPLE_VALUES_FOR_DQA_CRITERIA_STEPS',0)} See related topics

Details: Setting criteria to select the records

You can specify more than one criterion to select records from a database table to display in a query table.

Tip To indicate the logical NOT, use the operator <> or one of the other operators to describe the criteria.

Criteria related by AND

Connect two or more criteria with And when you want to retrieve only those records for which all the criteria are true.

For example, if you want to retrieve records of employees who work in the Boston office and who are in the Sales department, there are two criteria:

CITY="Atlanta"

DEPT="SALES"

The criteria statement is represented as:

CITY="Atlanta"#AND#DEPT="Sales"

Criteria related by OR

Connect two or more criteria with Or when you want to retrieve records for which at least one of the conditions is true.

For example, if you want to retrieve records of employees who work either in the Boston or the Atlanta office, there are two criteria, and each record must fulfill one condition, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

CITY="Boston"#OR#CITY="Atlanta"

Multiple criteria

You can connect three or more criteria with combinations of And and Or relationships.

For example, if you want to retrieve the records of employees in either the Boston or the Atlanta office who are in the Sales department, there are three conditions. All records must meet the criterion:

DEPT=SALES

In addition, each record must fulfill one of the following criteria, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

DEPT="Sales"#AND#(CITY="Boston"#OR#CITY="Atlanta")

Note When combining more than two criteria, you must type the parentheses () in the "Criteria statement" box to group the criteria. If you do not enter parentheses, DQA adds them when you click OK. Sometimes, this may produce unexpected results.

Specifying criteria with decimal points

Because of the way floating point numbers are stored, when you select a floating point value from the Value box, 1-2-3 may not display any records that meet the criteria. You can create two criteria to indicate a range of acceptable values. For example, to find matches for the criteria LENGTH=0.666666666666, you specify the criteria LENGTH>0.65#AND#LENGTH<0.67.

How the Data Query Add-In Differs from 1-2-3 Release 5

In the DQA Set Criteria dialog box, the Clear button removes the entire criteria statement. You cannot clear one statement at a time, as you could in 1-2-3 Release 5, nor can you drag statements to change their logical operators. However, you can edit the criteria formula directly in the box, as long as you follow the syntax for 1-2-3 formulas.

{button ,AL('H_QSC_STEPS',1)} Go to procedure

Creating a DQA query table

This task consists of the following parts:



Creating a DQA query table



Selecting the database table to query



(Optional) Choosing fields for the DQA query table



(Optional) Setting criteria to select the records

5 Adding the DQA query table to the sheet

Adding the DQA query table to the sheet

When you query a 1-2-3 database table, the Data Query Add-In (DQA) includes all the records that meet the criteria (up to 65,535). When you query an external table, 1-2-3 limits the number of records in the query table to the first 15 that meet the criteria you specify unless you specify a larger number.

1. If you haven't already, complete parts 1, 2, and (optionally) parts 3 and 4 of this task.
2. Enter the cell address for the upper-left corner of the location for the new query table, or use the range selector to select the cell. To limit the number of records, select a range that includes the number of rows in which you want the query table to appear.

Caution The DQA query table writes over any existing data in the range, including data in hidden columns or rows. To avoid writing over any data, put the DQA query table in a blank area of a sheet.

3. (Optional) Specify the maximum number of records to appear in the query table in the "Limit records" box.
4. Click OK.

1-2-3 creates the DQA query table and adds it to the sheet; it appears as a range with a border around it.

{button ,AL('H_123_ADDING_THE_DQA_QUERY_TABLE_TO_THE_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_TD_OVER;H_QN_STEPS;H_123_DELETING_A_DQA_QUERY_TABLE_STEPS;H_QJ_STEPS',0)}
[See related topics](#)

Details: Adding the DQA query table to the sheet

The DQA query table cannot overlap the database table.

Limiting the number of records

If you specify the top left cell of a range, the query table will contain as many fields and records as will fit in the worksheet.

If you specify a range, 1-2-3 displays only the records that fit in that range. For example, if you specify a range that is ten rows long, 1-2-3 displays the first ten records in the order in which they appear in the database table.

Changing the number of records in the DQA query table

To display a larger or smaller number of records after you create the DQA query table, choose Query - Set Options and change the "Limit records" option.

Moving a DQA query table

After you create a DQA query table, you can move it to another location in the workbook using Edit - Cut and Edit - Paste. To select the query table before you move it, use Query - Select Query Table.

{button ,AL('H_123_ADDING_THE_DQA_QUERY_TABLE_TO_THE_SHEET_STEPS',1)} [Go to procedure](#)

Selecting a DQA query table

Before you can use the Query commands to work with a [DQA query table](#), you must select it. A selected query table has a blue, double-line border, and its name appears in the [selection indicator](#).

To select a DQA query table, do one of the following:

- From the Query menu, choose Select Query Table, then select the query table name in the list and click OK.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

- Choose the Query menu command you want to use. The Select Query Table dialog box appears so you can select the query table you want to work with from the list.
- Click the top left cell of the query table before you choose the Query menu command you want to use.

Note If you want to copy data from the query table to another range in the workbook so you can format it, you can use the mouse or keyboard to select the range containing the data.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_SELECTI
NG_A_RANGE_STEPS',0)} [See related topics](#)

Changing the fields in a DQA query table

You can add fields to a [DQA query table](#) after you create it. You can also remove fields and change the position of fields.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Choose Fields.

The "Selected fields" box lists all of the fields in the query table in the order in which they appear.

3. To add a field, click Add, select the field(s) you want to add from the "Available fields" box, then click OK.

Tip CTRL+click to select more than one field name. SHIFT+click to select contiguous field names.

4. To remove a field, select the field in the "Selected fields" box, then click Clear.

5. To change the position of a field in the query table, select it in the "Selected fields" box, and then click the up or down arrow until the field is in the position you want.

6. Click OK.

Note Changes you make to the query table with Query - Choose Fields do not affect the source database table.

```
{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFF_STEPS;H_QSFA_STEPS;H_123_CHANGING_A_COMPUTED_COLUMN_IN_A_DQA_QUERY_TABLE_STEPS',0)}
```

[See related topics](#)

Showing an alias field name in a DQA query table

You can change the field name that displays in a [DQA query table](#). For example, you can display the field name PROD as Product, or for a computed column SALES*.05, you can show the field name BONUS. To do so, you give the field name an alias.

Note Showing an alias field name changes the field name in the query table but not in the source database table.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Choose Fields.

The "Selected fields" box lists all of the fields in the query table in the order in which they appear.

3. Select the field name you want to change in the "Selected fields" list.
4. Click Show Field As.
5. Enter the new field name in the "Show as" box.
6. Click OK to return to the Choose Fields dialog box.
7. Click OK.

```
{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFF_STEPS;H_QCFA_STEPS;H_123_CHANGING_A_COMPUTED_COLUMN_IN_A_DQA_QUERY_TABLE_STEPS',0)}
```

[See related topics](#)

Adding a computed column to a DQA query table

You can add a computed column to a DQA query table to show the results of a formula for each row of the query table. For example to determine a five percent bonus for all employees, the formula is SALARY * .05.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see Loading the Data Query Add-In.

2. From the Query menu, choose Choose Fields.
3. Select the field that you want to include in the computed column formula.
4. Click Formula.
5. Enter the formula in the "Enter formula" box.

Note A valid formula contains the name of a field in the database table and cannot include any of the following @functions: @@, @CELL, @COLS, @HLOOKUP, @INDEX, @INFO, @IRR, @N, @NPV, @ROWS, @S, @SHEETS, @STD, @STDS, @VAR, @VARS, @VLOOKUP, and the database @functions.

6. (Optional) Enter a name for the computed field in the "Show field as" box.

For example, you might want to rename the field BONUS. 1-2-3 displays the formula as the field name if you do not enter a name.

7. Do one of the following:
 - To add the computed column to the DQA query table, click Insert.
 - To replace the selected field with the computed column, click Replace.

The formula appears in the "Selected fields" list in the Choose Fields dialog box.

8. Click OK.

Tip To remove a computed column, choose Query - Choose Fields and click Clear or choose Query - Choose Fields and click Formula, then click Delete Formula.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFA_STEPS;H_QSFA_STEPS;H_123_CHANGING_A_COMPUTED_COLUMN_IN_A_DQA_QUERY_TABLE_STEPS;H_QA_STEPS',0)} See related topics

Changing a computed column in a DQA query table

You can edit the formula for a computed column in a [DQA query table](#) created with the Data Query Add-In (DQA).

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Choose Fields.
3. Select the computed column that you want to change in the "Selected fields" list.
4. Click Formula.
5. Edit the formula in the "Enter Formula" box.

Note A valid formula contains the name of a field in the database table and cannot include any of the following @functions: @@, @CELL, @COLS, @HLOOKUP, @INDEX, @INFO, @IRR, @N, @NPV, @ROWS, @S, @SHEETS, @STD, @STDS, @VAR, @VARS, @VLOOKUP, and the database @functions.

6. (Optional) Enter a name for the computed field in the "Show field as" box.
7. Click Replace.

The new formula appears in the "Selected fields" list.

8. Click OK.

Tip To remove a computed column, choose Query - Choose Fields and click Clear or choose Query - Choose Fields and click Formula, then click Delete Formula.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFA_STEPS;H_QSFA_STEPS;H_QCFF_STEPS',0)} [See related topics](#)

Changing the criteria for a DQA query table

After you create a [DQA query table](#) with the Data Query Add-In, you can change the [criteria](#) that the [records](#) in the source database table must meet in order to appear in a query table. Because the query table is linked to the source database table, you can change the criteria as often as you want to view different subsets of the records.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Set Criteria.
3. To change the criteria, do one of the following:
 - Click Clear to delete all the criteria and start again, then follow the steps below.
 - Click And or Or to add a criterion, then follow the steps below.
 - Edit the criteria by typing in the "Criteria statement" box, then skip to step 8.
4. Specify the criteria you want the records in the table to meet.

For example, if you want the records of everyone in the Sales department, the criterion is DEPT=Sales, where DEPT is the field, = is the operator, and Sales is the value.

- a. Select the [field](#) from the "Field" box.
- b. Select the [operator](#) from the "Operator" box.
- c. Specify the value in the "Value" box.

You can select a displayed value or enter a label, value, or formula.

Tip For more information about writing criteria statements, see [Details: Changing the criteria for a DQA query table](#).

5. To further limit the records to find, click And and repeat step 4.
6. To expand the number of records to find, click Or and repeat step 4.
7. (Optional) Edit the criteria by typing in the "Criteria statement" box. For example, you may need to add parentheses () to group the criteria properly.

Tip To test the criteria statement before closing the dialog box, click Refresh Now.

8. Click OK.

{button ,AL('H_QBB1_DETAILS',1)} [See details](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFA_STEPS;H_123_LISTING_SAMPLE_VALUES_FOR_DQA_CRITERIA_STEPS;H_QSDT_STEPS;H_123_SHOWING_UNIQUE_RECORDS_IN_A_DQA_QUERY_TABLE_STEPS;H_123_LIMITING_THE_RECORDS_IN_A_DQA_QUERY_TABLE_STEPS;H_QRN_STEPS;H_QA_STEPS',0)} [See related topics](#)

Details: Changing the criteria for a DQA query table

You can specify more than one criterion to select records from a database table to display in a query table.

Tip To indicate the logical NOT, use the operator <> or one of the other operators to describe the criteria.

Criteria related by AND

Connect two or more criteria with And when you want to retrieve only those records for which all the criteria are true.

For example, if you want to retrieve records of employees who work in the Boston office and who are in the Sales department, there are two criteria:

CITY="Atlanta"

DEPT="SALES"

The criteria statement is represented as:

CITY="Atlanta"#AND#DEPT="Sales"

Criteria related by OR

Connect two or more criteria with Or when you want to retrieve records for which at least one of the conditions is true.

For example, if you want to retrieve records of employees who work either in the Boston or the Atlanta office, there are two criteria, and each record must fulfill one condition, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

CITY="Boston"#OR#CITY="Atlanta"

Multiple criteria

You can connect three or more criteria with combinations of And and Or relationships.

For example, if you want to retrieve the records of employees in either the Boston or the Atlanta office who are in the Sales department, there are three conditions. All records must meet the criterion:

DEPT=SALES

In addition, each record must fulfill one of the following criteria, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

DEPT="Sales"#AND#(CITY="Boston"#OR#CITY="Atlanta")

Note When combining more than two criteria, you must type the parentheses () in the "Criteria statement" box to group the criteria. If you do not enter parentheses, DQA adds them when you click OK. Sometimes, this may produce unexpected results.

Specifying criteria with decimal points

Because of the way floating point numbers are stored, when you select a floating point value from the Value box, 1-2-3 may not display any records that meet the criteria. You can create two criteria to indicate a range of acceptable values. For example, to find matches for the criteria LENGTH=0.666666666666, you specify the criteria LENGTH>0.65#AND#LENGTH<0.67.

How the Data Query Add-In Differs from 1-2-3 Release 5

In the DQA Set Criteria dialog box, the Clear button removes the entire criteria statement. You cannot clear one statement at a time, as you could in 1-2-3 Release 5, nor can you drag statements to change their logical operators. However, you can edit the criteria formula directly in the box, as long as you follow the syntax for 1-2-3 formulas.

To limit the number of records, choose Query - Set Options. (In 1-2-3 Release 5, you set the limit for records in the Set Criteria dialog box.)

{button ,AL(`H_QBB1_STEPS',1)} Go to procedure

Listing sample values for DQA criteria

When you specify criteria for a [DQA query table](#), the Data Query Add-In (DQA) offers a list of sample values from the source database table in the Value list. For very large database tables or tables on network servers, performance may be improved by turning off this option.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Set Options.
3. Do one of the following:
 - Select "Show sample values in filter" to list unique values for each field in the Set Criteria dialog box.
 - Deselect "Show sample values in filter" to turn this option off.
4. Click OK.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;;H_QBB1_S
TEPS',0)} [See related topics](#)

Sorting a DQA query table

You can sort the records in a [DQA query table](#) in the order you specify.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Sort.
3. Select the name of the field you want to sort by from the "Sort by" list.
4. Select an option.
 - Ascending sorts A - Z, and smallest to largest values.
 - Descending sorts Z - A, and largest to smallest values.

5. Click Add Key.

6. (Optional) To specify additional sort keys, repeat steps 3, 4, and 5.

Note Select the field for the primary sort key first, then select additional keys. For example, if the Last_Name field is the first sort key, select the First_Name field as the second sort key.

7. Click OK.

Tip To clear all sort keys and return the query table to its original sort order, click Reset.

{button ,AL('H_QS_DETAILS',1)} [See details](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_123_SHOWING_UNIQUE_RECORDS_IN_A_DQA_QUERY_TABLE_STEPS;H_QBB1_STEPS',0)} [See related topics](#)

Details: Sorting a DQA query table

About the default sort order

The default order in which 1-2-3 sorts different types of labels is determined by the sort order specified when you installed 1-2-3.

{button ,AL('H_QS_STEPS',1)} [Go to procedure](#)

Selecting a different database table

You can apply the criteria, sort settings, selected columns, and aggregates of a selected query table to a different database table if both tables contain all the same fields. The query table will then contain data from the second database table.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Set Database Table.
3. Use the [range selector](#) to select the range that contains the database table you want to switch to.

Tip To switch to an external database table, type the name you assigned to the external table when you connected to it.

4. Click OK.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_123_SELECTING_A_DQA_QUERY_TABLE_STEPS;H_QBB1_STEPS;H_QJ_STEPS;H_TDCE_STEPS',0)} [See related topics](#)

Showing unique records in a DQA query table

You can identify the unique records in a source database table and display them in a [DQA query table](#). A record is unique when no other record in the database table matches it exactly.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Set Options.
3. Select "Show unique records only."
4. Click OK.

Note To return the query table to its state before you identified the unique records, choose Query - Set Options, then deselect "Show unique records only."

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_123_LIMITING_THE_RECORDS_IN_A_DQA_QUERY_TABLE_STEPS;H_QBB1_STEPS;H_QRN_STEPS',0)} [See related topics](#)

Limiting the records in a DQA query table

After you create a [DQA query table](#), you set or change the maximum number of records the query table can include. For example, if you specify 25, 1-2-3 displays the first 25 records in the order in which they appear in the database table.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Set Options.
3. Select "Limit records" and specify the maximum number of records for the query table in the "Limit records" box.
4. Click OK.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QBB1_STEPS;H_QRN_STEPS',0)} [See related topics](#)

Updating a database table with DQA

When you update a database table, any changes you have made to the records in a DQA query table are applied to the corresponding records in the source database table.

Caution Do not make your changes to the records in the query table until after you turn on the "Allow updates to database table" option. This step causes 1-2-3 to refresh the query table with current copies of the records in the source database table.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see Loading the Data Query Add-In.

2. From the Query menu, choose Set Options.
3. Select "Allow updates to database table."

Note Deselect "Show unique records only," if necessary. You cannot update the database table when the query table displays unique records.

4. Click OK to close the dialog box.

1-2-3 reminds you that you have turned on the "Allow updates to database table" option, so you should either continue with the updating process or turn off the option.

5. Click OK to close the message dialog box.

1-2-3 refreshes the records in the query table so that you can work with a current copy of the records from the source database table.

6. Edit the records in the query table.

7. From the Query menu, choose Set Options.

8. If the Select Query Table dialog box appears, select the name of the query table you want to work with, then click OK.

9. In the Set Options dialog box, click Update.

1-2-3 posts the changes you made to records in the query table to the database table and turns off the "Allow updates to database table" option.

Note If you decide not to send your changes to the source database table, choose Query - Set Options, then turn off the "Allow updates to database table" option.

{button ,AL('H_QUDT_DETAILS',1)} See details

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QBB1_STEPS;H_QRN_STEPS;H_TDAR_STEPS;H_TDDR_STEPS',0)} See related topics

Details: Updating a database table with DQA

You cannot update a database table if the DQA query table is joined to more than one database table.

Preventing updates to a database table

Deselecting the "Allow updates to database table" option disables the Update button, preventing you from inadvertently changing the records in the source database table to match the ones in the DQA query table.

Caution This setting cannot prevent records from being appended or deleted with the Query - Append Records or Query - Delete Records commands.

{button ,AL('H_QUDT_STEPS',1)} [Go to procedure](#)

Appending records with DQA

You can use the Data Query Add-In (DQA) to add new records to a database table. You do not have to create a DQA query table to append records.

1. If you want to append records to an external database table, connect to the table. For more information, see Connecting to an external database table with DQA.
2. In a row in a sheet, enter all the field names that appear in the database table.
3. In the rows directly beneath the field names, enter the records you want to add to the database table.
4. From the Query menu, choose Append Records.

Tip If the Query command does not appear on the main menu, reload DQA. For more information, see Loading the Data Query Add-In.

5. Use the range selector to select the range that contains the field names and records you want to add to the table.
6. Use the range selector to select the 1-2-3 database table to which you are appending the records, or type the name you assigned to an external database table when you connected to it.
7. Click OK.

1-2-3 appends the records to the bottom of the database table.

Note You can append records to the source database table even if the "Allow updates to database table" option is turned off in the Set Options dialog box.

{button ,AL(`H_TD_OVER;H_TDDR_STEPS;H_TDCE_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} See related topics

Deleting records with DQA

You can use the Data Query Add-In (DQA) to delete records that meet criteria you specify from a 1-2-3 database table or an external database table. You can delete records from a source database table with or without using a DQA query table.

Caution Records you delete using Query - Delete Records are permanently deleted from the source database table. The "Allow updates to database table" option in the Set Options dialog box does not prevent records from being deleted.

1. From the Query menu, choose Delete Records.

Tip If the Query command does not appear on the main menu, reload DQA. For more information, see Loading the Data Query Add-In.

2. Use the range selector to select the database table from which you want to delete records, or type the name you assigned an external database table when you connected to it.
3. Specify the criteria for the records you want to delete.

For example, if you want the records of a client whose status is "Inactive," the criterion is STATUS="Inactive".

- a. Select the field from the "Field" box.
- b. Select the operator from the "Operator" box.
- c. Specify the value in the "Value" box.

You can select a displayed value or enter a label, value, or formula.

Tip For more information about writing criteria statements, see Details: Deleting records with DQA.

4. To further limit the records to find, click And and repeat step 3.
5. To expand the number of records to find, click Or and repeat step 3.
6. To change the criteria, do one of the following:
 - Click Clear to delete all the criteria and start again.
 - Edit the criteria by typing in the "Criteria statement" box. For example, you may need to add parentheses () to group the criteria properly.
7. Click OK.

1-2-3 deletes the records that meet the criteria from the database table you selected.

Tip If you want to see the records you are choosing to delete before you delete them from a database table, create a query table for the database table and use Query - Set Criteria to select the records you want to delete. If you are satisfied that these are the records you want to delete, select the query table, choose Query - Delete Records, and then click Yes.

{button ,AL('H_TDDR_DETAILS',1)} See details

{button ,AL('H_TD_OVER;H_TDAR_STEPS;H_TDCE_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} See related topics

Details: Deleting records with DQA

If you use a query table to select the records you want to delete from a database table, you can specify more than one criterion to select the records.

Tip To indicate the logical NOT, use the operator <> or one of the other operators to describe the criteria.

Criteria related by AND

Connect two or more criteria with And when you want to retrieve only those records for which all the criteria are true.

For example, if you want to retrieve records of employees who work in the Boston office and who are in the Sales department, there are two criteria:

CITY="Atlanta"

DEPT="SALES"

The criteria statement is represented as:

CITY="Atlanta"#AND#DEPT="Sales"

Criteria related by OR

Connect two or more criteria with Or when you want to retrieve records for which at least one of the conditions is true.

For example, if you want to retrieve records of employees who work either in the Boston or the Atlanta office, there are two criteria, and each record must fulfill one condition, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

CITY="Boston"#OR#CITY="Atlanta"

Multiple criteria

You can connect three or more criteria with combinations of And and Or relationships.

For example, if you want to retrieve the records of employees in either the Boston or the Atlanta office who are in the Sales department, there are three conditions. All records must meet the criterion:

DEPT=SALES

In addition, each record must fulfill one of the following criteria, but not both:

CITY=BOSTON

CITY=ATLANTA

The criteria statement is represented as:

DEPT="Sales"#AND#(CITY="Boston"#OR#CITY="Atlanta")

Note When combining more than two criteria, you must type the parentheses () in the "Criteria statement" box to group the criteria. If you do not enter parentheses, DQA adds them when you click OK. Sometimes, this may produce unexpected results.

Specifying criteria with decimal points

Because of the way floating point numbers are stored, when you select a floating point value from the Value box, 1-2-3 may not display any records that meet the criteria. You can create two criteria to indicate a range of acceptable values. For example, to find matches for the criteria LENGTH=0.666666666666, you specify the criteria LENGTH>0.65#AND#LENGTH<0.67.

{button ,AL('H_TDDR_STEPS',1)} [Go to procedure](#)

Refreshing a DQA query table

You refresh a DQA query table to update records in the query table to reflect changes made to the data in the source database table. Refreshing a query table also applies changes made to the query table options, criteria, aggregates, or field names.

Tip If you want to update the query table automatically each time you make changes to query table settings, such as criteria and changes to fields, choose Query - Set Options, then select "Auto-refresh." For very large database tables or tables on network servers, performance may be improved by turning off, or deselecting, this option. Changes from the source database table can only be applied with the steps below.

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In.](#)

2. From the Query menu, choose Refresh Now.

Note You cannot refresh a DQA query table when the "Allow updates to database table" option is turned on. To turn this option off, choose Query - Set Options.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QUDT_STEPS;H_TDCE_STEPS',0)} [See related topics](#)

Creating aggregate summaries in a DQA query table

You can summarize the data in a [DQA query table](#) by creating aggregate calculations. For example, you can calculate the total sales by salesperson, by month of sale, or by account. You can also find averages, maximums, minimums, and the number of records in a group.

For an example of aggregate summaries, see [Details: Creating aggregate summaries in a DQA query table](#).

Note Before you create aggregate rows in a query table, remove any computed columns and fields that you do not need for the calculation. For example, if the query table contains the fields Name, Month, and Sales, and you want to see the total sales per person, delete the field Month. For information about removing fields, see [Changing the fields in a DQA query table](#).

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Aggregate.
3. Select the field that contains the values you want to use in the calculation or the data that you want to count.
4. Select the calculation you want to perform.
5. (Optional) Enter a name for the aggregate field in the "Show as" box.
1-2-3 replaces the field name with the @function formula in the query table if you do not enter a name.
6. Click OK.

Note To return the query table to its state before you created the aggregate rows, choose Query - Aggregate, then click Reset.

{button ,AL('H_QA_DETAILS',1)} [See details](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QCFF_STEPS;H_QBB1_STEPS',0)} [See related topics](#)

Details: Creating aggregate summaries in a DQA query table

What are aggregate summaries?

Suppose you are working with the following query table.

```
A: --- A ----- B ----- C ----
1   Name      Month    Sales
2   Mintz     May       2800
3   Smith     May       2100
4   Smith     June      1400
5   Mintz     June      1500
6   Smith     June      1600
```

You want to see the total sales per salesperson. First, you remove the field Month. If you do not, the results of the aggregate will be the total sales per salesperson per month.

When you choose Query - Aggregate, then select the field Sales and the calculation Sum, the query table displays the total sales per salesperson.

```
A: --- A ----- B ---
1   Name      Sales
2   Mintz     4300
3   Smith     5100
```

About the aggregate calculations you can perform

The calculations you can perform when creating aggregate summaries are based on the @functions listed below. For more information about the calculations, see [@Functions A-Z](#).

Select	To	@Function
Sum	Add the values	@SUM
Average	Find the average value	@AVG
Count	Count the nonblank cells	@COUNT
Minimum	Find the smallest value	@MIN
Maximum	Find the largest value	@MAX

{button ,AL('H_QA_STEPS',1)} [Go to procedure](#)

Renaming a DQA query table

You can change the name assigned to the [DQA query table](#).

1. From the Query menu, choose Select Query Table to select the name of the DQA query table you want to work with, if necessary.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. From the Query menu, choose Name.
3. In the "Query name" box, enter the new name for the query table following the standard [naming conventions](#).

Note The new name cannot duplicate the name of any other query table in the workbook and should not duplicate any range name in the workbook.

4. Click OK.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QSDT_STEPS;H_DELETING_RANGE_NAMES_STEPS;H_123_DELETING_A_DQA_QUERY_TABLE_STEPS',0)} [See related topics](#)

Deleting a DQA query table

When you are finished working with a DQA query table, you can delete it. Deleting a DQA query table does not delete records from the source database table.

1. From the Query menu, choose Select Query Table.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In.](#)

2. Select the query table you want to delete in the list.
3. Click Delete.
1-2-3 deletes the DQA query table from the workbook.
4. Click OK.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_DELETING_RANGE_NAMES_STEPS;H_QN_STEPS;H_123_SELECTING_A_DQA_QUERY_TABLE_STEPS',0)} [See related topics](#)

Joining database tables with DQA

You can include fields and records from two or more database tables in a single DQA query table by joining the database tables, provided the tables have a common field. For example, if you store employee addresses in one database table and their benefits in another, and both tables include an employee identification number field, you can combine these tables in a DQA query table.

1. Before joining database tables, you must do the following:
 - If the Query command does not appear on the main menu, reload DQA. For more information, see [Loading the Data Query Add-In](#).
 - If you want to join one or more 1-2-3 database tables, assign a range name to each one.
 - If you are joining one or more external database tables, you must connect to the database table(s) before joining. For more information, see [Connecting to an external database table with DQA](#).

2. Create a query table for each database table you want to join. For more information, see [Creating a DQA query table](#).

3. From the Query menu, choose Join.

4. Select the name of the DQA query table in which you want to view data from the joined database tables, then click OK.

5. Enter a join statement in the "Join criteria" box. The statement should equate a field in one database table with a field in another, such as BENEFITS.ID=EMPLOYEE.ID

Note To specify a 1-2-3 database table, use the range name. To specify an external database table, use the name you assigned to the external table when you connected to it.

6. Click OK.

1-2-3 adds all the fields from the joined database table to the one you selected in step 4. You can add or remove fields for this query table the way you would a query table that is linked to a single source database table. You can also set criteria for any field that is not from an external database table.

{button ,AL('H_QJ_DETAILS',1)} [See details](#)

{button ,AL('H_QJ_EX',1)} [See example](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_TDCE_STEPS;H_QCFA_STEPS',0)} [See related topics](#)

Details: Joining database tables with DQA

Writing the join criteria to join two database tables

In DQA, you type the join criteria and operators in the Join dialog box using the following rules:

- Two database tables can be joined if they both have a field that contains the same kind of data, although the field name can be different.
- To specify a field in a 1-2-3 database table, use the range name for the range containing the table, followed by a period (.), then the field name. The named range must include the field names and the records.
- To specify an external database table, use the name you assigned to the external table when you connected to it, followed by a period (.), then the field name.
- When joining three or more database tables, you combine join statements for pairs of database tables. Enclose each pairing in parentheses (). All the database tables do not need to have the same field in common.

The following are examples of join statements:

```
PAYROLL.ID=EMPLOYEE.ID
```

```
INVENTORY.PRODUCT_ID=SALES.ITEM
```

```
(EMPLOYEE.ID=BENEFITS.ID) #AND# (BENEFITS.PLAN=HEALTH.PLAN)
```

Notes

When a DQA query table contains information from joined database tables:

- You cannot send any changes you may make to the data in the query table to the source database tables. You can only update the original records from a DQA query table that is linked to a single source database table.
- You cannot set criteria based on fields from an external database table.

{button ,AL('H_QJ_STEPS',1)} [Go to procedure](#)

Example: Joining database tables with DQA

You can join database tables to combine records and fields from two or more database tables in a single DQA query table.

Joining two database tables

For example, you want to join an employee database table named EMPLOYEE with a database table named BENEFITS that contains their employee benefits.

EMPLOYEE

ID	LASTNAME
45324	Kravitz
32465	Lee
35214	Garcia
24367	Jackson

BENEFITS

ID	HEALTH	PLAN
32465	Yes	Single
24367	Yes	Family
35214	No	None
45324	Yes	Single

Both tables contain the field ID, which holds employee identification numbers. The following query table results from this join criteria statement:

EMPLOYEE.ID=BENEFITS.ID

EMPLOYEE.ID	LASTNAME	BENEFITS.ID	HEALTH	PLAN
24367	Jackson	24367	Yes	Family
32465	Lee	32465	Yes	Single
35214	Garcia	35214	No	None
45324	Kravitz	45324	Yes	Single

1-2-3 automatically includes all the fields from the joined database table. The range name identifies the common fields. You can remove and rename fields to show the data you want.

Joining more than two database tables

You also have a database table that contains details about the available health plans.

HEALTH

PLAN	COST
Single	750
Family	1500
None	0

The following query table combines information from all three database tables. The duplicate fields have been removed, and it uses this join criteria statement:

(EMPLOYEE.ID=BENEFITS.ID) #AND# (BENEFITS.PLAN=HEALTH.PLAN)

ID	LASTNAME	HEALTH	PLAN	COST
24367	Jackson	Yes	Family	1500
32465	Lee	Yes	Single	750
35214	Garcia	No	None	0
45324	Kravitz	Yes	Single	750

Connecting to an external database table with DQA

When you use the Data Query Add-In (DQA) to connect to an external database table, you can use Query commands and database @functions to analyze, add to, or change data in the table while you work in 1-2-3.

Note Depending on the ODBC driver you select and how it is configured, 1-2-3 may prompt you for a user ID and password. If so, enter the user ID and password and click OK. If you do not need a user ID or password to connect to the driver, choose OK.

1. If the Query command does not appear on the main menu, reload DQA. For more information, see Loading the Data Query Add-In.

2. From the Query menu, choose External Tables, and then choose Connect to External.

If you know the names of the driver, the external database, and the external table, you can combine steps 3 through 5 by entering all of these names, separated by spaces in the text box.

For example, enter DBASE_IV C:\LOTUS\123\SAMPLE EMPLOYEE to use the dBASE IV driver, a database or directory named C:\LOTUS\123\SAMPLE, and a table named EMPLOYEE.

3. Specify the driver and click Continue.

If the list box does not display the name of a driver you want to use, use the Install program to install the driver.

4. Specify the external database or directory and click Continue.

If 1-2-3 can locate the external database, it displays the database table names in the list box. If 1-2-3 does not display the name of the external database you want to use, type it in the text box.

5. Specify the external database table and choose Continue.

6. In the "Refer to as" box, enter a name for the table using the standard naming conventions.

This is the name you use in 1-2-3 to refer to this table in Query commands and database @functions. Do not duplicate a name that already exists as a named range in the workbook.

7. Click OK.

1-2-3 establishes the connection to the database table. Although the name you assigned will not appear in any lists of range names in 1-2-3, you can type the external table name in Query commands and database @functions.

{button ,AL('H_TDCE_DETAILS',1)} See details

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_TDD_STEPS;H_QJ_STEPS;H_TDCT_STEPS;H_TDSC_STEPS',0)} See related topics

Details: Connecting to an external database table with DQA

Working with ODBC drivers

1-2-3 uses ODBC drivers to connect to external database tables. ODBC drivers allow 1-2-3 to read data from and send data to an external database.

You need to install and configure ODBC drivers for each database type you want to open.

- Use the 1-2-3 Install program to install the ODBC drivers that come with this release of 1-2-3.
- To configure the ODBC drivers and create a data source for each database type you want to open, see [Configuring ODBC drivers](#).

Updating data in a transaction-based external database table

When updating data in a transaction-based database such as SQL Server, the records you are updating must contain unique entries. Note that SQL Server drivers do not use the Float data type to determine uniqueness. If you receive an error message reporting that "... no columns are useable for selecting a unique row," you need to include a unique field of a data type other than Float in the query table.

Updating external SQL Server or Sybase database tables

You may get a "connection timed out" error message when updating or deleting records in an external SQL Server or Sybase database table. The message may appear because the found set is too large, the query criteria are too complex, or because of heavy network traffic.

If the found set is large, reduce the size of the found set and try the update again. If the query criteria are complex and include 1-2-3 @functions, simplify the criteria and then try updating or deleting again.

If network traffic is heavy, you can ask your system administrator to change the amount of time that 1-2-3 is set to wait for the network to respond before issuing a timeout error. This is controlled by the setting "UpdateTimeout=" in the ODBC configuration file for the driver (LOSS609.INI for SQL Server 6.0 and LOSS09.INI for SQL Server 4.2), located in the WIN95 or WINNT directory.

Other ways to work with external database tables

The 1-2-3 Classic menu contains additional commands for using 1-2-3 with external database tables.

{button ,AL('H_TDCE_STEPS',1)} [Go to procedure](#)

Disconnecting from an external database table

When you are finished working with an external database table, you can disconnect from it to end all data exchange between 1-2-3 and the external table.

After you disconnect from an external database table, any queries or database @functions that refer to the table may result in errors. 1-2-3 will not update these queries or @functions until you connect to the table again using Query - External Tables - Connect to External with the same name to refer to the table.

1. From the Query menu, choose External Tables, and then choose Disconnect.

Tip If the Query command does not appear on the main menu, reload DQA. For more information, see [Loading the Data Query Add-In](#).

2. Select the name of the external database table.
3. Click OK.

1-2-3 disconnects from the database table you specified.

{button ,AL('H_TD_OVER;H_TDCE_STEPS;',0)} [See related topics](#)

Creating an external database table with DQA

You can set up the structure for a new table in an [external database table](#) by modeling it on an existing 1-2-3 database table, [DQA query table](#), or external table.

Note Depending on the ODBC driver you select and how it is configured, 1-2-3 may prompt you for a driver or database user ID and password. If so, enter the user ID and password and click OK. If you do not need a user ID and password to connect to the driver, click OK.

1. From the Query menu, choose External Tables, then choose Create Table.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. Specify the driver and click Continue.

If the list box does not display the name of a driver you want to use, see [Configuring ODBC drivers](#).

3. Specify the external database or directory and click Continue.

If 1-2-3 can locate the external database, it displays the name in the list box. If 1-2-3 does not display the name of the external database you want to use, type it in the text box.

4. Replace the words "[New Table]" with a name for the new database table file, then click Continue.

5. Use the [range selector](#) to select the range, the range containing the DQA query table, or the external table name that contains the model table.

6. Do one of the following:

- To copy the records in the model table to the new external database table, select "Insert records from model table."
- To create only the field name structure for the external database table without adding records, deselect "Insert records from model table."

7. Click OK.

Note 1-2-3 creates a new external table in the external database. To work with the data in the new table, choose Query - External Tables - Connect to External to connect to the new external database table. Then, for example, you can choose Query - New Query to create a query table or choose Query - Append Records to add records to the table.

{button ,AL('H_TDCT_DETAILS',1)} [See details](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_TDSC_STEPS;H_QSS_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_TDAR_STEPS',0)} [See related topics](#)

Details: Creating an external database table with DQA

Working with ODBC drivers

1-2-3 uses ODBC drivers to connect to external database tables. ODBC drivers allow 1-2-3 to read data from and send data to an external database.

You need to install and configure ODBC drivers for each database type you want to open.

- Use the 1-2-3 Install program to install the ODBC drivers that come with this release of 1-2-3.
- To configure the ODBC drivers and create a data source for each database type you want to open, see [Configuring ODBC drivers.](#)

{button ,AL('H_TDCT_STEPS',1)} [Go to procedure](#)

Sending SQL commands with DQA

Depending on the driver you are using, you may be able to send driver-specific commands, called SQL commands, directly to the ODBC driver or external database table, and show the results in a range in the workbook. SQL commands may be instructions for criteria, the fields to include, and other instructions similar to those you can specify for a DQA query table with the Query commands.

Tip Use the Query commands to create a DQA query table with the requirements you need, then choose Query - Show SQL, and click Copy to generate the SQL command string to use in the procedure described below.

1. Connect to the database table you want to work with. For more information, see Connecting to an external database table with DQA.

2. From the Query menu, choose External Tables, and then choose Send SQL.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see Loading the Data Query Add-In.

3. Select the name of the external database table you want to work with.
4. Use the range selector to select the location for the results of the SQL command.

To limit the size of the resulting table, specify a range. To bring in as many fields and records as will fit in the sheet, select only the cell you want to be the upper-left corner of the table.

5. Select "SQL string."

Tip If you have saved a frequently-used SQL command in a cell, select "From range," specify the range address, and skip step 6.

6. In the "SQL string" box, do one of the following:

- Type the SQL command.
- If you have copied the string from the Show SQL dialog box, click in the "SQL string" box, then press CTRL+V to paste the command string.

7. Click OK.

1-2-3 processes the command and copies the selected records from the external table to the range you specified.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_QSS_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;',0)} See related topics

Generating SQL command equivalents

You can display the SQL command equivalent for the criteria and other settings used to create a DQA query table. You can then copy the SQL statement to the [Clipboard](#), then send the copied SQL statement to an external database table using the Query - External Tables - Send SQL command or the [{SEND-SQL}](#) macro command.

1. From the Query menu, choose Show SQL.

Tip If the Query command does not appear on the main menu, load DQA. For more information, see [Loading the Data Query Add-In](#).

2. Select the name of the query table you want to work with.
3. Click OK.

The Show SQL dialog box displays the SQL command equivalent for the selected query table.

4. Click Copy to copy the SQL statement to the Clipboard.

Tip To copy just a portion of an SQL statement, highlight the portion you want to copy and press CTRL+C to copy the string to the Clipboard, then click Cancel.

5. Do one of the following:
 - To send the command to an external database table, choose Query - External Tables - Send SQL, click in the "SQL string" box and press CTRL+V to paste the string, then make other selections as necessary.
 - To save the string in a cell for future use, click a cell in the sheet, then press CTRL+V to paste it in the cell.

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_TDSC_STEPS;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_QBB1_STEPS;H_QCFA_STEPS',0)} [See related topics](#)

Creating a DQA crosstab

This task consists of the following parts:



Overview: Creating DQA crosstabs



Selecting the data for a DQA crosstab



Selecting the headings for a DQA crosstab



Selecting the data options for a DQA crosstab

Overview: Creating DQA crosstabs

You can create a crosstab, or cross-tabulation table, to summarize information in a database table. Crosstabs are particularly useful for showing relationships between two fields in a database table.

For example, the following portion of a database table contains information about dictionary orders. Your company sells dictionaries in two formats -- CD-ROM and traditional books -- to homes, businesses, and universities.

Row headings		Column headings	
A	A	B	C
2	Format	Customer	Units
3	CD-ROM	University	124
4	Book	Business	95
5	CD-ROM	Home	2
6	Book	University	68
7	CD-ROM	Business	29
8	CD-ROM	Home	5
9	Book	University	34

Data is the sum of values in column C

The following crosstab, created from the entire database table, summarizes the total number of orders for each format by each type of customer.

B	A	B	C	D	E
1	Crosstab table for Total Units by Format and Customer				
2		Business	Home	University	
3	Book	447		5	257
4	CD-ROM	223		14	469
5					

Sum of all CD-ROM orders for businesses

Tip Creating a crosstab is often a good way to put information from a database table in a form that you can chart.

You do not have to create a query table to create a crosstab unless you are creating a crosstab based on an external database table.

{button ,AL('H_QA_STEPS;H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEP S;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_TDCE_STEPS;H_QJ_STEPS',0)} See related topics

Creating a DQA crosstab

This task consists of the following parts:



[Overview: Creating DQA crosstabs](#)



[Selecting the data for a DQA crosstab](#)



[Selecting the headings for a DQA crosstab](#)



[Selecting the data options for a DQA crosstab](#)

Selecting the data for a DQA crosstab

You can create a crosstab from a [1-2-3 database table](#) or an [external database table](#).

1. If the Query command does not appear on the main menu, reload DQA. For more information, see [Loading the Data Query Add-In](#).
2. From the Query menu, choose Crosstab.
3. Use the [range selector](#) to select the range that contains the database table, or type the name you assigned to an external database table when you connected to it.

Note The range must contain the row of field names and at least three columns and two rows.

4. Click Continue.

The Crosstab Heading Options dialog box appears.

{button ,AL('H_QA_STEPS;H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEP
S;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_TDCE_STEPS;H_QJ_STEPS',0)} [See related topics](#)

Creating a DQA crosstab

This task consists of the following parts:



[Overview: DQA crosstabs](#)



[Selecting the data for a DQA crosstab](#)

3 [Selecting headings for a DQA crosstab](#)



[Selecting the data options for a DQA crosstab](#)

Selecting headings for a DQA crosstab

In the Crosstab Heading Options dialog box, you select the fields that you want to use as column and row headings to form the crosstab's grid.

1. If you have not already, complete part 2 of this task.
2. From the "Row headings" box, select the field that contains the labels you want to use as row headings.
3. From the "Column headings" box, select the field that contains the labels you want use as column headings.
4. Click Continue.

The Crosstab Data Options dialog box appears.

{button ,AL(`H_QA_STEPS;H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEP
S;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_TDCE_STEPS;H_QJ_STEPS';0)} [See related topics](#)

Creating a DQA crosstab

This task consists of the following parts:



[Overview: DQA crosstabs](#)



[Selecting the data for a DQA crosstab](#)



[Selecting the headings for a DQA crosstab](#)

4 **Selecting data options for a DQA crosstab**

Selecting data options for a DQA crosstab

In the Crosstab Data Options dialog box , you select the field that contains the values for the crosstab to summarize.

1. If you have not already done so, complete parts 2 and 3 of this task.
2. Select the field whose values you want summarized in the cells of the crosstab table.
3. Select the calculation method.
4. Click OK.

1-2-3 creates the crosstab table and places the table in a new sheet. 1-2-3 inserts the new sheet after the current sheet.

{button ,AL('H_123_SELECTING_DATA_OPTIONS_FOR_A_DQA_CROSSTAB_DETAILS',1)} [See details](#)

{button ,AL('H_QA_STEPS;H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEP
S;H_DB_WORKING_WITH_DATABASE_TABLES_OVER;H_TDCE_STEPS;H_QJ_STEPS',0)} [See related topics](#)

Details: Selecting data options for a DQA crosstab

Ways to calculate

The table below describes the calculation options available for a DQA crosstab. For more information about the calculation, see [@Functions A-Z](#).

Select	To	@Function
Sum	Add the values	@SUM
Average	Find the average value	@AVG
Count	Count the nonblank cells	@COUNT
Minimum	Find the smallest value	@MIN
Maximum	Find the largest value	@MAX
Pure Count	Count the cells that contain values	@PURECOUNT
STD	Calculate the population standard deviation	@STD
STDS	Calculate the sample standard deviation	@STDS
VAR	Calculate the population variance	@VAR
VARs	Calculate the sample variance	@VARs

{button ,AL('H_123_SELECTING_DATA_OPTIONS_FOR_A_DQA_CROSSTAB_STEPS',1)} [Go to procedure](#)

Set Criteria dialog box

Use this dialog box to set the criteria that selects records from a database table to appear in a DQA query table.

Choose a task

[Setting criteria to select the records](#)

[Changing the criteria for a DQA query table](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS',0)} [See related topics](#)

Choose Fields dialog box

Use this dialog box to choose the fields that appear in the columns of a DQA query table.

Choose a task

[Choosing fields for the DQA query table](#)

[Changing the fields in a DQA query table](#)

[Adding a computed column to a DQA query table](#)

[Changing a computed column in a DQA query table](#)

[Showing an alias field name in a DQA query table](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS',0)} [See related topics](#)

Set Options dialog box

Use this dialog box to the update the source database table, show unique records in a DQA query table, and set DQA query table options.

Choose a task

[Updating a database table with DQA](#)

[Showing unique records in a DQA query table](#)

[Listing sample values for DQA criteria](#)

[Refreshing a DQA query table](#)

[Limiting the records in a DQA query table](#)

{button ,AL('H_TD_OVER;H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS',0)} [See related topics](#)

Formula dialog box

Use this dialog box to specify the formula for a computed column in a DQA query table.

Choose a task

Adding a computed column to a DQA query table

Changing a computed column in a DQA query table

Overview: Working with graphic objects

Graphic objects include charts, maps, pictures, buttons for running scripts and macros, lines, arrows, text blocks, and shapes, such as rectangles, ellipses, and polygons.

You can use lines, arrows, text blocks, and shapes to enhance your data and create great-looking presentations. You can also bring pictures into 1-2-3.

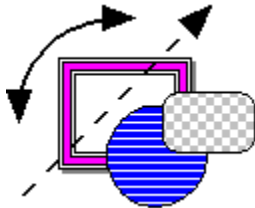
Manipulating graphic objects

After you select a graphic object, you can use many techniques to manipulate it. You can perform simple manipulations, such as moving and sizing graphic objects.

1-2-3 also provides commands for more advanced manipulations, such as rotating, flipping, and layering graphic objects. You can also group graphic objects to manipulate them as a single object.

Styling graphic objects

You can style graphic objects for a variety of visual effects, as shown in the illustration below.



For more information, see [Styling graphic objects](#).

```
{button ,AL('H_BRINGING_A_PICTURE_INTO_123_STEPS;H_CREATING_A_FREEHAND_DRAWING_STEPS;H_CREATING_A_LINE_ARC_OR_ARROW_STEPS;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_CREATING_A_RECTANGLE_OR_ELLIPSE_STEPS;H_CREATING_A_TEXT_BLOCK_STEPS;H_SIZING_GRAPHICS_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_GROUPING_GRAPHICS_STEPS;H_SHUFFLING_GRAPHICS_STEPS;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_SHEET_GRID_LINES_STEPS;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;','0')} See related topics
```

Styling graphic objects

Using the InfoBox, you can style graphic objects in many different ways. To see the array of styling choices, right-click the object, choose the Properties command, and click the Lines & Color tab in the InfoBox.

You can:

- Style a line or the border of a shape to make it dashed or dotted.

- Add an arrowhead to a line, polyline, or arc.



- Add designer frames around rectangular shapes, charts, maps, and parts of objects, such as chart titles.



- Change the interior pattern or color of graphic objects.



```
{button ,AL('H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_THE_INFOBOX_OVER;H_WORKING_W  
ITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_CH  
ANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_INTERIOR_C  
OLOR_AND_PATTERN_STEPS;H_USING_DESIGNER_FRAMES_STEPS;',0)} See related topics
```

Creating a line, arc, or arrow

Use lines, arrows, and arcs to point out and emphasize important data.

1. From the Create menu, choose Drawing.
2. Choose Line, Arrow, or Arc.
3. Move the mouse pointer where you want to start drawing the line, arrow, or arc.
4. Drag across the sheet.
5. Release the mouse button.

Tip To draw horizontal, vertical, or 45-degree lines and arrows, or quarter-circle arcs, SHIFT+drag.

{button ,AL('H_CREATING_A_LINE_ARC_OR_ARROW_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_FREEHAND_DRAWING_STEPS;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_CREATING_A_RECTANGLE_OR_ELLIPSE_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_SIZING_GRAPHICS_STEPS;H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;',0)} [See related topics](#)

Details: Creating a line, arc, or arrow

You can drag a line, arc, or arrow to any size or angle. When you draw an arrow, the arrowhead appears at the end where you stop dragging.

Changing the arrowheads

To change the direction an arrow points or to create a double-headed arrow, right-click the arrow, choose the Properties command, click the Lines & Color tab in the InfoBox, then select an option from the Arrowhead list.

Related SmartIcons

Draws a line



Draws an arc



Draws a forward-pointing arrow



Draws a double-headed arrow

{button ,AL('H_CREATING_A_LINE_ARC_OR_ARROW_STEPS',1)} [Go to procedure](#)

Creating a rectangle or ellipse

Use rectangles, rounded rectangles, squares, ellipses, and circles to emphasize data or to create designs such as logos.

1. From the Create menu, choose Drawing.
2. Choose Rectangle, Rounded Rectangle, or Ellipse.
3. Move the mouse pointer where you want to start drawing the shape.
4. Drag until the shape is the size you want.

Tip To draw a square instead of a rectangle or to draw a circle instead of an ellipse, SHIFT+drag.

5. Release the mouse button.

{button ,AL('H_CREATING_A_RECTANGLE_OR_ELLIPSE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_FREEHAND_DRAWING_STEPS;H_CREATING_A_LINE_ARC_OR_ARROW_STEPS
;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_STYLING_GRAPHI
CS_OVER;H_SIZING_GRAPHICS_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF
_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRI
D_STEPS',0)} [See related topics](#)

Details: Creating a rectangle or ellipse

Changing rectangles and squares

You can select "Rounded corners" on the Lines & Colors tab in the InfoBox to change the corners of selected rectangles and squares.

Related SmartIcons



Draws a rectangle or square



Draws a rounded rectangle

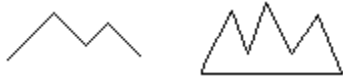


Draws an ellipse or circle

{button ,AL('H_CREATING_A_RECTANGLE_OR_ELLIPSE_STEPS',1)} [Go to procedure](#)

Creating a polyline or polygon

Polylines and polygons are shapes consisting of any number of straight or freehand lines. As shown in the illustration below, a polyline is an open shape, and a polygon is closed.



1. From the Create menu, choose Drawing.
2. Choose Polyline or Polygon.
3. Move the mouse pointer where you want to start drawing the first line.
4. Do one of the following:
 - Drag to draw a straight line.
 - CTRL+drag to draw a freehand line.
 - SHIFT+drag to draw a horizontal, vertical, or 45-degree line segment.
5. Release the mouse button to end the line.
6. Repeat steps 3 through 5 to draw more line segments.
7. To finish, double-click.

Tip If you start drawing a line and want to erase it and start again, press ESC.

Note For a polygon, 1-2-3 automatically connects the last line you drew to the first.

{button ,AL('H_CREATING_A_POLYLINE_OR_POLYGON_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_FREEHAND_DRAWING_STEPS;H_CREATING_A_LINE_ARC_OR_ARROW_STEPS;H_CREATING_A_RECTANGLE_OR_ELLIPSE_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_RESHAPING_A_POLYLINE_POLYGON_OR_FREEHAND_DRAWING_STEPS;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS;',0)} [See related topics](#)

Details: Creating a polyline or polygon

You can combine straight lines and freehand lines to create polyline or polygon drawings.

Related SmartIcons

Draws a polyline



Draws a polygon

{button ,AL('H_CREATING_A_POLYLINE_OR_POLYGON_STEPS',1)} [Go to procedure](#)

Creating a freehand drawing

1. From the Create menu, choose Drawing, and then choose Freehand.



2. Move the mouse pointer where you want to start the freehand drawing.
3. Drag to draw the shape you want.
4. Release the mouse button.

{button ,AL('H_CREATING_A_FREEHAND_DRAWING_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_LINE_ARC_OR_ARROW_STEPS;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_NAMING_A_GRAPHIC_STEPS;H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_RESHAPING_A_POLYLINE_POLYGON_OR_FREEHAND_DRAWING_STEPS;',0)} [See related topics](#)

Details: Creating a freehand drawing

You can create many individual freehand lines or shapes and then group them to create a complex freehand drawing.

{button ,AL('H_CREATING_A_FREEHAND_DRAWING_STEPS',1)} [Go to procedure](#)

{button ,AL('H_GROUPING_GRAPHICS_STEPS',0)} [See related topics](#)

Creating a text block

You can use text blocks to point out important data.



[Show me a QuickDemo](#)

1. From the Create menu, choose Text.



2. Move the mouse pointer where you want the text block to appear.
3. Click to create a default-sized text block, or drag until the text block is the size you want.
4. Release the mouse button.
5. Enter text by typing or by pasting it from the Clipboard.
Tip To paste text from the Clipboard into a text block, press CTRL+V rather than choosing Edit - Paste.
6. When you finish entering text, click a cell in the sheet.

{button ,AL('H_CREATING_A_TEXT_BLOCK_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_C
HANGING_TEXT_FORMAT_STEPS;H_SIZING_GRAPHICS_STEPS;H_STYLING_GRAPHICS_OVER;H_WORK
ING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVE
R;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS;',0)} [See related topics](#)

Details: Creating a text block

If you cannot see all the text in a text block, change the size of the text block or change the font size of the text.

To start a new line in a text block, press ENTER.

{button ,AL('H_CREATING_A_TEXT_BLOCK_STEPS',1)} [Go to procedure](#)

{button ,AL('H_CHANGING_TEXT_FORMAT_STEPS;H_SIZING_GRAPHICS_STEPS;',0)} [See related topics](#)

Naming a graphic object

Naming graphic objects makes it easier to find them using Edit - Go To. 1-2-3 assigns a default name, such as "Line 1," to every graphic object, but you can use the InfoBox to change the name.

1. Select the graphic object or group of graphic objects you want to name.
2. Right-click the selection and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Enter a name in the "Object name" box, according to the [naming conventions](#).

Object is the type of graphic object selected; for example, "Line."

5. (Optional) [Move, collapse, or close](#) the InfoBox.

Note The name of the graphic object appears in the [selection indicator](#) when the object is selected.

{button ,AL('H_NAMING_A_GRAPHIC_DETAILS',1)} [See details](#)

{button ,AL('H_NAMING_CONVENTIONS_OVER;H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_THE_INFOBOX_OVER;H_GROUPING_GRAPHICS_STEPS','0')} [See related topics](#)

Details: Naming a graphic object

Do not assign the same name to two graphic objects in the same workbook.

By default, 1-2-3 names the first line you create Line 1, the next line Line 2, and so on. As you create each type of graphic object, the number in the default name for the object increases.

The name of a graphic object is not a caption for the object and does not appear with the object in the sheet.

{button ,AL('H_NAMING_A_GRAPHIC_STEPS',1)} [Go to procedure](#)

Bringing a picture into 1-2-3

You can bring a picture from another application into 1-2-3. For example, you can create or edit a picture in Microsoft Paint and bring it into a 1-2-3 sheet.

In this release of 1-2-3, you can attach a LotusScript Click event to a picture to automate a task when you click the picture.

1. From the Create menu, choose Drawing, and then choose Picture.



2. From the "Look in" list, select the drive and folder containing the picture file.
3. (Optional) Select the file type of the picture in the "Files of type" list.
4. Select the picture file you want from the "File name" list.
5. Click Open.
6. Click the place in the sheet where you want to put the top left corner of the picture.

Tip You can also bring a picture into 1-2-3 by copying it to the Clipboard and pasting it in the sheet.

{button ,AL('H_BRINGING_A_PICTURE_INTO_123_DETAILS',1)} [See details](#)

{button ,AL('H_123_RESTORING_A_PICTURE_TO_ITS_ORIGINAL_SIZE_STEPS;H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS;',0)} [See related topics](#)

Details: Bringing a picture into 1-2-3

Types of pictures you can bring into 1-2-3

The types of pictures you can bring into 1-2-3 are the following:

- Bitmap (.BMP)
- Windows metafile (.WMF)
- 1-2-3 picture (.PIC)
- ANSI metafile (.CGM)
- GIF image (.GIF)
- JPEG image (.JPG, .JPEG)

Sizing pictures

When you bring a picture into a sheet, 1-2-3 sizes the picture according to the dimensions specified in the original graphics file. The size information in the original picture file does not change when you resize the picture in the sheet.

You can drag a handle to change the size of a picture; however, sizing the picture may distort its original proportions. To restore the picture to its original size, select it and choose Drawing - Restore to Original Size.

Attaching a LotusScript Click event to a picture

You can attach a LotusScript Click event to a picture. When you click the picture, 1-2-3 runs the script that is attached to the picture. To attach a Click event to a picture, use the Create - Drawing - Picture command to bring the picture into the workbook. Then open the Script Editor, select the name of the picture from the "Object" list, and enter the script. For more information about LotusScript, see [Overview: Using LotusScript](#) or [123: Click Event](#).

Attaching a hyperlink to a picture

You can also attach a hyperlink to a picture, and choose whether you want the hyperlink to jump to a location on the Internet, to another file, or to a range or object in the current workbook. For more information, see [Creating a hyperlink](#).

{button ,AL('H_BRINGING_A_PICTURE_INTO_123_STEPS',1)} [Go to procedure](#)
{button ,AL('H_SIZING_GRAPHICS_STEPS',0)} [See related topics](#)

Restoring a picture to its original size

If you resized a picture after bringing it into 1-2-3, you can easily restore it to its original size.

1. Select the picture.
2. From the Drawing menu, choose Restore to original size.

{button ,AL('H_123_RESTORING_A_PICTURE_TO_ITS_ORIGINAL_SIZE_DETAILS',1)} See details

{button ,AL('H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_SIZING_GRAPHICS_STEPS;H_BRINGING_A_PICTURE_INTO_123_STEPS;',0)} See related topics

Details: Restoring a picture to its original size**Sizing pictures**

When you bring a picture into a sheet, 1-2-3 sizes the picture according to the dimensions specified in the original graphics file. The size information in the the original picture file does not change when you resize the picture in the sheet.

{button ,AL('H_123_RESTORING_A_PICTURE_TO_ITS_ORIGINAL_SIZE_STEPS',1)} [Go to procedure](#)

Fastening graphic objects to cells

You can change how a graphic object is fastened to the cells behind it.

1. Select one or more graphic objects.
2. Right-click the graphic object(s) and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Under Fasten to cells, select an option.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_FASTENING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_STYLING_GRAPHICS_OVER;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_THE_INFOBOX_OVER;H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS;H_GROUPING_GRAPHICS_STEPS;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS',0)} See related topics

Details: Fastening graphic objects to cells

Options for fastening graphic objects

The "Fasten to cells" options determine how 1-2-3 fastens a graphic object to the cells behind the object.

- Top-left and bottom-right -- The graphic object changes size and position when you move, size, or hide the cells behind it.
- Top-left only -- The graphic object moves but stays the same size when you move, size, or hide the cells behind it.
- Not fastened -- The graphic object is detached from the underlying cells; it doesn't move or change size when you move, size, or hide the cells behind it.

How 1-2-3 fastens graphic objects

When you create a graphic object, it fastens by default to the cells behind its top left and bottom right corners. An object fastened in this way can move and change size with the cells behind it.

For example, when you create a rectangle, it fastens to the cells behind its top left and bottom right corners. It can move and change size when you insert or delete cells, columns, and rows; or when you change column widths and row heights.

This rectangle is fastened to the top left and bottom right cells, so...	A	A	B	C
	1			
	2			
	3			
	4			
	5			

...when you widen column B, the rectangle resizes	A	A	B	C
	1			
	2			
	3			
	4			
	5			

Sizing a graphic object does not change the way it was fastened.

{button ,AL('H_FASTENING_GRAPHICS_STEPS',1)} Go to procedure

Flipping graphic objects

You can flip most graphic objects horizontally or vertically.

1. Select one or more graphic objects.
2. Right-click the selected object(s) and choose Flip Left-Right or Flip Top-Bottom.

Note You cannot flip charts, maps, embedded objects, buttons, pictures, or text blocks.

{button ,AL('H_FLIPPING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_SHUFFLING_GRAPHICS_STEPS;H_ROTATING_GRAPHICS_STEPS;H_RESHAPING_A_POLYLINE_POLYGON_OR_FREEHAND_DRAWING_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;',0)} See related topics

Details: Flipping graphic objects

Flipping more than one graphic object

If you select more than one graphic object to flip, 1-2-3 flips the entire selection as a group. Any locked graphic objects in the group do not flip.

Related SmartIcons



Flips a graphic object horizontally left to right



Flips a graphic object vertically top to bottom

{button ,AL('H_FLIPPING_GRAPHICS_STEPS',1)} Go to procedure

Grouping graphic objects

You can group graphic objects to manipulate and style them as a group rather than individually. Graphic objects stay grouped until you ungroup them.

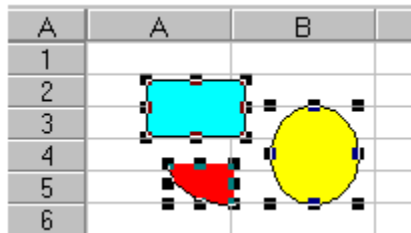
1. Select the graphic objects you want to group.
2. Right-click the objects and choose the Group command.

{button ,AL('H_GROUPING_GRAPHICS_DETAILS',1)} See details

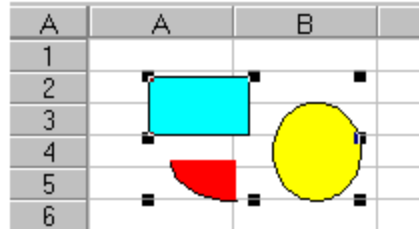
{button ,AL('H_UNGROUPING_GRAPHICS_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_SHUFFLING_GRAPHICS_STEPS;',0)} See related topics

Details: Grouping graphic objects

Before you group graphic objects, each object has its own set of handles, as shown below.



After you group graphic objects, the group has one set of handles, as shown below.



Related SmartIcons



Groups the selected graphic objects



Ungroups the selected graphic objects



Selects several graphic objects

{button ,AL('H_GROUPING_GRAPHICS_STEPS',1)} [Go to procedure](#)

Hiding or redisplaying graphic objects

You can use the InfoBox to hide or redisplay selected graphic objects in the current workbook.

1. Select one or more graphic objects.

Note To select hidden graphic objects, use Edit - Go To.

2. Right-click the graphic object(s) and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Under Misc, select or deselect "Hide."
5. (Optional) Move, collapse, or close the InfoBox.

Note To hide all graphic objects or redisplay all hidden graphic objects in the current workbook, use File - Workbook Properties (View tab).

{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_THE_INFOBOX_OVER;H_NAMING_A_GRAPHIC_STEPS;','0')} [See related topics](#)

Locking or unlocking graphic objects

Locked graphic objects cannot be moved, sized, deleted, styled, or manipulated.

1. Select one or more graphic objects.
2. Right-click the graphic object(s) and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Under Misc, select or deselect "Lock."
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_LOCKING_OR_UNLOCKING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_HIDING_OR_REDISPLAYING_GRAPHICS_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_THE_INFOBOX_OVER','0)} See related topics

Details: Locking or unlocking graphic objects

When you select a locked graphic object, its handles are diamond-shaped rather than square.



Locked charts and maps change if the data they refer to changes.

Keeping a graphic object locked

Locking a graphic object prevents accidental changes, but it does not prevent you or others from unlocking the graphic object.

To prevent others from unlocking a graphic object, you can lock the workbook so that you or others must enter a password to make changes to the workbook. For more information, see [Locking workbook contents](#).

{button ,AL('H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS',1)} [Go to procedure](#)

Moving graphic objects

You can drag graphic objects to move them.

1. Select one or more graphic objects.
2. Drag the graphic object(s) by any part except the handles.
Tip CTRL+drag to copy a graphic object and move the copy.
3. Release the mouse button.

Note You cannot move a locked graphic object.

{button ,AL('H_MOVING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_SIZING_GRAPHICS_STEPS;H_FLIPPING_GRAPHICS_STEPS;H_ROTATING_GRAPHICS_STEPS;
H_SHUFFLING_GRAPHICS_STEPS;H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS;H_WORKING_WITH
GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_COPY
ING_AND_MOVING_OVER;',0)} See related topics

Details: Moving graphic objects

Moving several graphic objects at once

If you select more than one graphic object, you can move them all by dragging one.

Moving transparent shapes

When moving a transparent rectangle or other shape, drag it by the border, not by the interior.

{button ,AL('H_MOVING_GRAPHICS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_COPYING_AND_MOVING_OVER;H_COPYING_AND_MOVING_IN_A_SHEET_STEPS;H_COPYING_AND_MOVING_TO_ANOTHER_SHEET_STEPS;H_COPYING_AND_MOVING_TO_A_NEW_SHEET_STEPS;',0)} [See related topics](#)

Reshaping a polyline, polygon, or freehand drawing

You can reshape a polyline, polygon, or freehand drawing by displaying the points and moving them.

1. Select the polyline, polygon, or freehand drawing.
2. Right-click the object and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Under Misc, select "Show points."
5. Drag the points to change the shape of the object.
6. (Optional) Move, collapse, or close the InfoBox.

Note You cannot reshape a locked polyline, polygon, or freehand drawing.

{button ,AL('H_RESHAPING_A_POLYLINE_POLYGON_OR_FREEHAND_DRAWING_DETAILS',1)} [See details](#)
{button ,AL('H_CREATING_A_FREEHAND_DRAWING_STEPS;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_THE_INFOBOX_OVER;H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS',0)} [See related topics](#)

Details: Reshaping a polyline, polygon, or freehand drawing

You can move the points in a polyline, polygon, or freehand drawing, but you cannot add new points or delete existing ones.

{button ,AL(`H_RESHAPING_A_POLYLINE_POLYGON_OR_FREEHAND_DRAWING_STEPS',1)} [Go to procedure](#)

Aligning graphic objects to the grid

You can use the sheet grid lines as guides for placing, aligning, and sizing one or more [graphic objects](#).

Aligning a graphic object when you create it

When you align an object as you create it, its edges snap to the grid lines of the cells you drag over.

1. Choose the command from the Create menu or click the icon for the object you want to create.
2. Move the mouse pointer where you want to place one of the corners.
3. Do one of the following:
 - To create an object that fills a single cell, SHIFT+CTRL+click the cell.
 - To align all four edges to grid lines, SHIFT+CTRL+drag in the direction that you want to draw the object.
 - To place one corner in the middle of a cell and align the opposite corner to grid lines, begin to drag in the middle of the cell, then press SHIFT+CTRL and continue to drag in the direction that you want to draw the object.
4. Release the mouse button and keys when the object is the size you want.

Aligning a graphic object when you resize it

When you SHIFT+CTRL+drag to resize an object, only the borders you are changing snap to the grid lines.

1. [Select](#) the graphic object.
2. SHIFT+CTRL+drag a [handle](#) in the direction you want to size the object.
3. Release the mouse button and keys when the object is the size you want.

Note You cannot use this method to draw or resize lines or arrows, draw freehand drawings, or align squares or circles that you create with SHIFT+drag.

{button ,AL('H_SIZING_GRAPHICS_STEPS;H_BRINGING_A_PICTURE_INTO_123_STEPS;H_CREATING_A_CHARACTER_IN_123_STEPS;H_CREATING_A_MAP_STEPS;H_CREATING_A_RECTANGLE_OR_ELLIPSE_STEPS;H_CREATING_A_POLYLINE_OR_POLYGON_STEPS;H_CREATING_A_TEXT_BLOCK_STEPS;',0)} [See related topics](#)

Rotating graphic objects

1. Select one or more graphic objects.
2. Right-click the graphic object(s) and choose the Properties command.
3. Click the Basics tab in the InfoBox.



4. Specify the degree of rotation in the "Rotation" box.
5. (Optional) Move, collapse, or close the InfoBox.

Note You cannot rotate embedded or locked graphic objects, charts, maps, buttons, pictures, or text blocks.

{button ,AL('H_ROTATING_GRAPHICS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_THE_INFOBOX_OVER;H_FLIPPING_GRAPHICS_STEPS;H_MOVING_GRAPHICS_STEPS;H_SHUFFLING_GRAPHICS_STEPS','0')} [See related topics](#)

Details: Rotating graphic objects

Rotating several graphic objects at once

If you select more than one graphic object and rotate them, the objects rotate as a group around the center of the group.

{button ,AL('H_ROTATING_GRAPHICS_STEPS',1)} Go to procedure

Layering graphic objects

When graphic objects overlap, you can change the way they are layered by shuffling objects to the front or back.

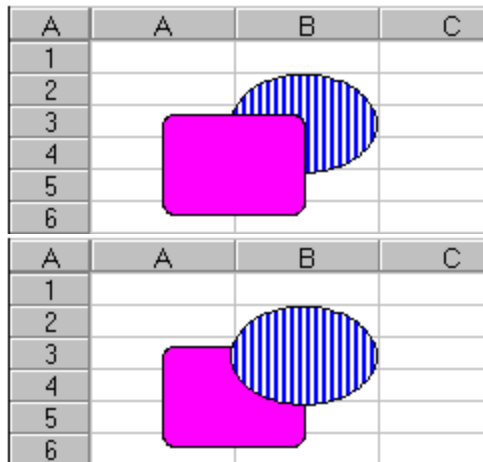
1. Select one or more graphic objects.
2. Right-click the object(s) and choose Bring to Front or Send to Back.

{button ,AL('H_SHUFFLING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_MOVING_GRAPHICS_STEPS;H_FLIPPING_GRAPHICS_STEPS;H_ROTATING_GRAPHICS_STEPS;H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;',0)} See related topics

Details: Layering graphic objects

The illustration below shows what happens when you shuffle graphic objects that overlap, bringing one graphic object to the front.



You cannot shuffle parts of maps or charts, such as titles, legends, notes, and axes.

Related SmartIcons



Brings the selected graphic object to the front of the stack



Sends the selected graphic object to the back of the stack

{button ,AL('H_SHUFFLING_GRAPHICS_STEPS',1)} [Go to procedure](#)

Sizing graphic objects

1. Select one or more graphic objects.
 2. Drag a handle in the direction you want to size the object.
Tip To maintain original proportions, SHIFT+drag a corner handle. To align the object to sheet grid lines, SHIFT+CTRL+drag a handle.
 3. Release the mouse button when the object is the size you want.
-

{button ,AL('H_SIZING_GRAPHICS_DETAILS',1)} See details

{button ,AL('H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_123_RESTORING_A_PICTURE_TO_ITS_ORIGINAL_SIZE_STEPS;H_123_ALIGNING_GRAPHIC_OBJECTS_TO_THE_GRID_STEPS',0)} See related topics

Details: Sizing graphic objects

You drag different handles to size a graphic object the way you want.

Drag a top or bottom mid-point
handle to size height

Drag a side mid-point
handle to size width

Drag a corner handle to
size both height and width



Restoring the size of a graphic object

While dragging to size a graphic object, you can restore it to its original size by pressing ESC.

After releasing the mouse button, you can restore a graphic object to its original size by immediately choosing Edit - Undo.

Sizing several graphic objects at once

If you select more than one graphic object to size, you can size them all by dragging a handle of one.

{button ,AL('H_SIZING_GRAPHICS_STEPS',1)} [Go to procedure](#)

Ungrouping graphic objects

You can ungroup graphic objects to manipulate them individually.

1. Select one or more groups of graphic objects.
2. Right-click the selected group(s) and choose the Ungroup command.

Related SmartIcons



Ungroups the selected group(s)



Groups the selected graphic objects

{button ,AL('H_WORKING_WITH_GRAPHICS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FO
R_OBJECTS_OVER;H_GROUPING_GRAPHICS_STEPS;',0)} [See related topics](#)

Overview: ActiveX controls and JavaBeans in 1-2-3

ActiveX controls and JavaBeans are types of OLE controls. Once you embed these controls in a workbook, you can name them and program them using LotusScript to create customized applications in 1-2-3.

This release of 1-2-3 provides support for a limited set of ActiveX controls and JavaBeans including controls from Microsoft Visual Basic 5.0 and beans from ProtoView Development's JSuite.

About ActiveX controls

ActiveX controls are components that provide a specific service a developer can use in a customized application. You can embed ActiveX controls in a workbook and then attach scripts to the controls to create customized applications. ActiveX controls have the file extension .OCX.

About JavaBeans

JavaBeans are self contained objects, similar to ActiveX controls, that can be used with other beans to create applications. Like ActiveX controls, you can embed JavaBeans in a workbook and then attach scripts to them.

Scripting ActiveX controls and JavaBeans

Some controls have the ability to generate events such as MouseOver when you pass the mouse over the control, or Click when you click the control. Once you embed a control or a bean and name it, 1-2-3 displays the control and its events in the Script Editor. You can write a script for any event displayed in the Script Editor.

Other controls do not generate events because they are designed to function independently. For example, you might find a control that lets you play movies or sounds but does not generate any events for you to script.

{button ,AL('H_123_BEFORE_YOU_BEGIN_DESIGNING_CONTROLS_STEPS;H_123_INSTALLING_THE_JAVA_RUNTIME_ENVIRONMENT_STEPS';,0)} [See related topics](#)

Using ActiveX controls and JavaBeans in 1-2-3

This task consists of the following parts:



Before you begin designing controls



Embedding ActiveX controls and JavaBeans in a workbook



Setting the properties for a control



Writing scripts and testing controls

Before you begin designing controls

If you are an application developer who is creating custom applications in 1-2-3 using ActiveX controls or JavaBeans, you need to know about Design and Run modes.

Design and Run modes provide a convenient way to design and test your applications.

- In Design mode, you can set the properties of a control and attach scripts to it. You can also move, size, copy, and delete a control.
- In Run mode, you can run a control to see how it works.

Initially, the menu command for switching between Design and Run modes is hidden, and 1-2-3 is always in Run mode. You should display the menu command so you can switch between these modes when you are scripting and testing the controls.

To display the Design and Run mode command

1. From the View menu, choose Set View Preferences.
2. Select the option to display the Design and Run command on the View menu.



Display menu command for designing ActiveX and Java controls

3. (Optional) If you want Design and Run commands to appear on the View menu in every new file you open, click Make Default for New Workbooks.
4. Click OK.

1-2-3 adds a Design/Run toggle command to the end of the View menu. You use these commands to work with the controls as you add them to a workbook.

Tip Add the following icon to your 1-2-3 icon set so you can quickly toggle between Design and Run modes.



{button ,AL('H_123_BEFORE_YOU_BEGIN_DESIGNING_CONTROLS_DETAILS',1)} [See details](#)

{button ,AL('H_123_ACTIVEX_AND_JAVA_CONTROLS_OVER',0)} [See related topics](#)

Details: Before you begin designing controls

Design and Run modes allow you to switch between designing and testing a spreadsheet application which includes embedded ActiveX controls and JavaBeans.

About Design mode

Design mode is a development environment in which you can work with the control by manipulating properties and assigning actions.

In Design mode, you can

- Select, copy, move, and size a control
- Change a control's properties
- Write and attach scripts to a control

When you select a control, 1-2-3 displays the name of the control on the context menu, and also displays the SmartIcons and status bar controls for working with OLE objects.

Mouse actions in Design mode:

- Single click on a control selects it
- Double-click on a control with events opens the Script Editor to the default event
- Right-mouse click on a control displays the control's menu

About Run mode

You use Run mode to see how the controls work.

In Run mode

- All controls are activated
- Controls can get focus, but you cannot select or change a control
- The right mouse menu for any control is determined by the control

{button ,AL('H_123_BEFORE_YOU_BEGIN_DESIGNING_CONTROLS_STEPS',1)} Go to procedure

Using ActiveX controls and JavaBeans in 1-2-3

This task consists of the following parts:



Before you begin designing controls



Embedding ActiveX controls and JavaBeans in a workbook



Setting the properties for a control



Writing scripts and testing controls

Embedding ActiveX controls and JavaBeans in a workbook

You can embed ActiveX controls and JavaBeans in a 1-2-3 workbook to create customized applications for other users. Before you can embed JavaBeans in a 1-2-3 workbook, you must install the Java Runtime Environment. See [Installing the Java Runtime Environment](#).

1. From the Create menu, choose Object.
2. Under Create new, select Control or JavaBean.
Note If JavaBean appears dimmed, you need to install the Java Runtime Environment (JRE).
3. From the "Object type" list, select the type of control that you want to create.
4. Click OK.
5. Click the sheet where you want the top left corner of the control to appear.

1-2-3 embeds the control in the sheet. When you select the control, 1-2-3 adds the control's name to the menu so you can work with the control. When 1-2-3 is in Design mode, you can use the control's menu to change the properties and other settings.

{button ,AL('H_123_ACTIVEX_AND_JAVA_CONTROLS_OVER;H_123_INSTALLING_THE_JAVA_RUNTIME_ENVIRONMENT_STEPS',0)} [See related topics](#)

Using ActiveX controls and JavaBeans in 1-2-3

This task consists of the following parts:



Before you begin designing controls



Embedding ActiveX controls and JavaBeans in a workbook



Setting the properties for a control



Writing scripts and testing controls

Setting the properties for a control

The Object - Properties command opens the InfoBox where you can set some basic properties for the control. Some controls, however, also have control-specific properties that you can set using a dialog box that comes with that control.

1. From the View menu, choose Design controls to put 1-2-3 in Design mode.
Note If you do not see this command on the View menu, you need to enable Design and Run modes. See Before you begin designing controls.
2. Right-click the control to display the menu for the control.
Depending on the control, you may see two Properties commands,
3. Choose Object - Properties to open the InfoBox.
4. On the Basics tab, enter a name that you will also use in scripts.
5. (Optional) Move, collapse, or close the InfoBox.
6. Some controls also have a dialog box where you can set properties. Right-click the control again and choose Properties to open the dialog box for that control.
7. Review and change any of the properties.

{button ,AL('H_123_ACTIVEX_AND_JAVA_CONTROLS_OVER;H_USING_THE_INFOBOX_STEPS',0)} See related topics

Using ActiveX controls and JavaBeans in 1-2-3

This task consists of the following parts:



Before you begin designing controls



Embedding ActiveX controls and JavaBeans in a workbook



Setting properties of a control



Writing scripts and testing controls

Writing scripts and testing controls

You use the Script Editor to write scripts for each control.

1. From the View menu, choose Design Controls to put 1-2-3 in Design mode.

Note If you do not see this command on the View menu, you need to enable Design and Run modes. See [Before you begin designing controls](#).

2. Click the control.
3. From the Edit menu, choose Scripts & Macros and then choose Show Script Editor.
4. Use the Script Editor to write the scripts for each control.
For more information on using the Script Editor, choose Help from the Script Editor menu.
5. When you are ready to test the controls, choose View - Run Controls to put 1-2-3 in Run mode.
6. Test the controls.
7. When you have finished writing and debugging scripts for the application, you can hide the Design/Run menu so a user cannot change the controls. Choose View - View Preferences and deselect the option for this menu.



Display menu command for designing ActiveX and Java controls

8. Save the file.

When someone else opens the file, 1-2-3 is in Run mode by default.

{button ,AL('H_INSTALLING_123_SCRIPT_HELP_STEPS;H_LOTUSSCRIPT_INDEX_TOPIC_OVER;H_123_ACTIV
EX_AND_JAVA_CONTROLS_OVER',0)} [See related topics](#)

Installing the Java Runtime Environment (JRE)

You must install the Java Runtime Environment (JRE) before you can embed JavaBeans in a 1-2-3 workbook.

Caution Do not install the Winsock2.dll when you install the Java Runtime Environment if you use Lotus Notes. You can run JavaBeans without installing this file.

1. Using Windows Explorer, locate the \EXTRA\JRE folder on the SmartSuite CD-ROM or on the server from which you installed 1-2-3 or SmartSuite.

Note When you put the SmartSuite CD in the drive, it pops up an AutoRun window. You can click Extras to open the Extra folder and then click the JRE folder.

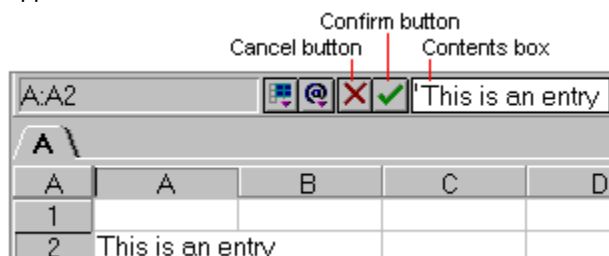
2. Double-click the file named jre116.exe.
This file installs the Java Runtime Environment.
3. Follow the install instructions.

Overview: Editing data

Edit an entry when you want to change data or replace it entirely.

Where you edit data

You can edit a cell entry either in the cell or in the contents box by double-clicking the cell or clicking the contents box when the cell is selected. When you edit in the contents box, (as shown below) the cancel and confirm buttons appear.



Data you can edit

You can edit:

- Cell contents
- Text in text blocks and cell comments
- Legends, labels, titles, and notes in charts
- Legends and titles in maps

Editing dates

When you edit dates, 1-2-3 uses the date setting for 2-digit years you selected in the 1-2-3 Preferences dialog box. The default setting is "Interpret entry of 2-digit years using sliding window around system date." For example, you can change a date such as 2/1/05 to 2/2/05, and 1-2-3 interprets the year as 2005.

For more information, see [1-2-3 and the year 2000](#).

Finding and replacing data

Choose Edit - Find and Replace to search through the workbook or sheet to find and replace characters. You can find and replace values as well as labels.

Checking spelling

Choose Edit - Check Spelling to correct misspelled words and check for duplicate words, such as "the the" in cells, charts, and text blocks.

{button ,AL('H_EDITING_A_CELL_COMMENT_STEPS;H_EDITING_DATA_IN_A_CELL_STEPS;H_EDITING_DATA_IN_TEXT_BLOCKS_STEPS;H_ENTERING_DATA_OVER;H_MODIFYING_MAPS_OVER;H_CHECKING_SPELLING_STEPS;H_FINDING_DATA_OVER;H_CREATING_A_CHART_IN_123_OVER;','0)} [See related topics](#)

Editing data in a cell

1. Double-click the cell you want to edit.
2. Edit the entry.
3. Press ENTER.

Tip To replace an entry entirely, select the cell, type the new entry, and press ENTER.

{button ,AL('H_EDITING_DATA_IN_A_CELL_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_DATA_OVER;H_ENTERING_DATA_OVER;',0)} [See related topics](#)

Details: Editing data in a cell

To	Press
Delete characters to the left of the insertion point	BACKSPACE
Delete characters to the right of the insertion point	DEL
Scroll through the cell contents	HOME, END, →, or ←

Other ways to edit data in a cell

- Select the cell and press F2 (EDIT), edit the entry, then press ENTER.
- Select the cell to edit, click the contents box at the point where you want to begin editing, edit the entry, then click the Confirm button.



Note You can right-click the cell to cut, copy, paste, or clear data in a cell.

Canceling editing

To cancel the edits you're making, press ESC. Pressing ESC abandons the edit and restores the text that was in the cell before you started editing.

Note Once you begin an edit in a cell, you cannot switch to editing in the contents box. Once you begin an edit in the contents box, you cannot switch to editing in a cell.

{button ,AL('H_EDITING_DATA_IN_A_CELL_STEPS',1)} [Go to procedure](#)

{button ,AL('H_EDITING_KEYS_OVER','0')} [See related topics](#)

Editing data in text blocks

1. Double-click the [text block](#).
2. Edit the text.
3. When you finish editing, click outside the text block.

{button ,AL('H_EDITING_DATA_IN_TEXT_BLOCKS_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_DATA_OVER;H_CREATING_A_TEXT_BLOCK_STEPS','0')} [See related topics](#)

Details: Editing data in text blocks

To	Press
Delete characters to the left of the insertion point	BACKSPACE
Delete characters to the right of the insertion point	DEL
Scroll through the text block contents	HOME, END, PG UP, PG DN, , ↓, →, or ←

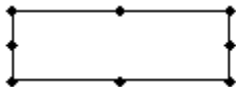
Styling text blocks

You can apply only one font, color, and alignment to all the text in a text block. You can change the border, background color, and pattern of a text block. Use Drawing - Drawing Properties to style text blocks.

Locked text blocks

If the text block is locked, its handles are diamond-shaped. To unlock the text block so you can edit it, select it and use Drawing - Drawing Properties (Basics tab).

Locked



Unlocked



{button ,AL('H_EDITING_DATA_IN_TEXT_BLOCKS_STEPS',1)} [Go to procedure](#)

Editing a cell comment

1. Click the cell containing the cell comment.
2. Choose Range - Cell Comment.



3. (Optional) Click Name and Date Stamp.
4. Edit the cell comment.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_EDITING_A_CELL_COMMENT_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_DATA_OVER;H_CREATING_A_CELL_COMMENT_STEPS;H_123_PRINTING_CELL_COMMENTS_AND_FORMULAS_STEPS;',0)} [See related topics](#)

**Details: Editing a cell comment**

You cannot style the text in a cell comment.

Using the Name and Date Stamp button

Clicking Name and Date Stamp on the Cell Comment tab in the InfoBox inserts your user name and the date and time at the top of the cell comment.

Related SmartIcons

Sets cell comment marker display as well as other view preferences for the current workbook

{button ,AL('H_EDITING_A_CELL_COMMENT_STEPS',1)} [Go to procedure](#)

Overview: Entering data

You build a spreadsheet by entering data, such as numbers, text, dates, times, and formulas.

Where you enter data

You can enter data in either the cell or the contents box. If you enter data in the contents box, the Cancel and Confirm buttons appear. You can enter up to 512 characters.

While you enter data

While you enter data in a cell, you can't perform other tasks until you cancel or confirm the entry. To continue, you must either cancel or confirm the entry.

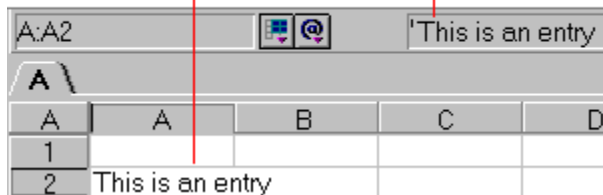
Confirming an entry

When you confirm an entry, 1-2-3 stores the data in the cell. You confirm an entry by doing any of the following:

- Pressing ENTER
- Pressing ↓, →, ←, or clicking outside the cell
- Clicking the Confirm button if you're entering in the contents box



Entry appears both in the contents box and in the cell



Canceling an entry

When you cancel an entry, 1-2-3 abandons the entry, leaving the cell blank (or filled with the previous contents). While entering data, you can cancel an entry by doing one of the following:

- Pressing ESC
- Clicking the Cancel button if you're entering in the contents box



About text entries

Text entries are called labels. Labels can contain letters, numbers, or a combination of letters and numbers.

Entering numbers as labels

If the first character you enter is a number, 1-2-3 assumes that you are entering a value you want to use in calculations. 1-2-3 treats any entry that combines letters with numbers as a label.

If you want to enter numbers as a label, you must start your entry with a label-prefix character. Label-prefix characters indicate that you are entering a label; they also set alignment for the cell or repeat the label.

<u>Label-prefix character</u>	<u>Effect</u>
' (apostrophe)	Left alignment
" (quotation mark)	Right alignment
^ (caret)	Center alignment
\ (backslash)	Repeats label in the cell

Entering addresses

When you enter a street address, 1-2-3 automatically inserts a label-prefix character. For example, if you enter 10 Main Street, and then press ENTER, 1-2-3 treats the entry as a label.

About numeric entries

Numeric entries are called values. Values can be numbers, formulas, or @functions. Formulas calculate or combine numbers and text. @Functions are built-in formulas that calculate with numbers and text.

How 1-2-3 formats numbers

When you enter numbers, 1-2-3 formats them automatically as Comma, Percent, or Scientific depending on the symbols you use. For example, if you enter 37%, 1-2-3 formats the number in Percent format. If you enter 27,322, 1-2-3 formats the number in Comma format. If you enter a plain number, such as 3700 or 37.50, 1-2-3 enters the number using the default format (initially General format). In addition, 1-2-3 will automatically format numbers you enter using standard date and time formats, or one of the formats on the Frequently Used list in the status bar.

If you format a number and 1-2-3 fills the cell with *** (asterisks), the column is not wide enough to display the number using the format you selected.

Entering dates and times

You can enter a date or time, for example, 04/19/48 or 11:10 PM, as either a label or a value. When you enter dates or times as labels, remember to enter a label-prefix character first, if the date or time begins with a number.

You can use dates and times entered as values in calculations. For example, you can calculate the number of days in between two dates or quickly change the appearance of a date from 4/9/48 to 09-Apr-48. You can also use @functions such as @DATE and @TIME to enter dates and times and calculate with them.

1-2-3 stores date and time values as date and time numbers, but displays them in the format you specify. 1-2-3 automatically formats dates entered as Apr-48, 09-Apr, 09-Apr-48, or 04/09/48. 1-2-3 also automatically formats times entered in any of the standard time formats except hh.mm (hour.minutes).

Entering dates and the year 2000

1-2-3 is year 2000 ready. You can enter dates with either a 2-digit (for example, 4/2/15) or 4-digit year (for example, 4/2/2015). For more information, see 1-2-3 and the year 2000. You can also control how 1-2-3 stores and displays a date. For information, see Setting options for dates.

Notes

- To make sure you get the results you want, you can always enter and display the year as 4 digits.
- You can display dates in a variety of formats that include 2-digit and 4-digit years.
- Displaying dates with 4 digits for the year will make dates wider, so some dates may display as *** (asterisks). Widen the column to display the date instead of asterisks. You may also need to adjust some print ranges.

{button ,AL('H_CREATING_A_CELL_COMMENT_STEPS;H_EDITING_DATA_OVER;H_ENTERING_DATES_STEP
S;H_ENTERING_NUMBERS_STEPS;H_ENTERING_TEXT_STEPS;H_ENTERING_TIMES_STEPS;H_123_SET
TING_OPTIONS_DATES_STEPS',0)) See related topics

Entering numbers

1. Click the cell where you want to enter the number.
2. Type the number.
3. Press ENTER to confirm.

Tip To enter a number as currency or a percentage, include the currency symbol or the % sign (for example, type \$200 or 95%).

{button ,AL('H_ENTERING_NUMBERS_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_AN_ATFUNCTION_STEPS;H_ENTERING_A_FORMULA_STEPS;H_ENTERING_DATA_OVERH_FORMATTING_NUMBERS_STEPS;H_ENTERING_DATES_STEPS;H_ENTERING_TIMES_STEPS;H_EDITING_DATA_IN_A_CELL_STEPS;',0)} [See related topics](#)

Details: Entering numbers

If you make a mistake

If you make a typing mistake while entering, press BACKSPACE or press ESC to abandon the entry. Press F2 (EDIT) to edit the entry.

Range of numbers valid in 1-2-3

You can enter and calculate with any numbers from -1.79769313486231E308 to 1.79769313486231E308. 1-2-3 can display any number within this range, including zero.

Displaying large numbers in 1-2-3

If you enter a number with more than 15 decimals, 1-2-3 rounds it to 15 decimals. If a number appears in the form $nE+n$, or a number with decimal places appears rounded, or if 1-2-3 displays *** (asterisks) in the cell, it means the entry is too long to fit in the column.

1-2-3 stores the entire entry (up to 15 decimal places) but can't display it. You can see the number by widening the column. For information on changing column width, see [Sizing columns](#).

Formatting numbers

You can enter a number one way (for example, as a percentage) and then change the format to display it a different way (for example, as currency). Changing the format changes how 1-2-3 displays the number, but does not change how 1-2-3 stores or calculates with the number. Use Range - Range Properties (Number Format tab) to change the number format.

Related SmartIcons



Cancels the last command or action



Formats values as a percent with two decimal places



Formats values with the default currency format



Formats values with the thousands separator and no decimal places

{button ,AL('H_ENTERING_NUMBERS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_NUMBER_FORMATS_OVER;H_FORMATTING_NUMBERS_STEPS','0')} [See related topics](#)

Entering text

A text entry is called a label.

1. Click the cell where you want to enter the text.
2. Type the text.
3. Press ENTER to confirm.

{button ,AL('H_ENTERING_TEXT_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_DATA_IN_A_CELL_STEPS;H_ENTERING_DATA_OVER',0)} [See related topics](#)

Details: Entering text

If you make a mistake

If you make a typing mistake while entering, press BACKSPACE or press ESC to abandon the entry. Press F2 (EDIT) to edit the entry.

Displaying a label that is longer than the cell

If you enter a label that is longer than the cell, and the cells to the right of the label are blank, 1-2-3 displays the part of the label that overlaps those cells. If the cell to the right contains data, 1-2-3 displays as much of the label as possible. To see the entire label, widen the column. For information on changing column width, see [Sizing columns](#).

Related SmartIcons



Cancels the last command or action

{button ,AL('H_ENTERING_TEXT_STEPS',1)} [Go to procedure](#)

{button ,AL('H_EDITING_KEYS_OVER;H_EDITING_DATA_IN_A_CELL_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS','0')} [See related topics](#)

Entering dates

1. Click the cell where you want to enter the date.
2. Type the date in one of the following formats:
 - MM/DD/YY; for example, 4/10/56 or 04/10/56
 - DD-MMM-YY; for example, 10-Apr-56
 - MM/DD/YYYY; for example, 4/10/2010

Note You can now enter dates with either a 2-digit (for example, 4/2/15) or 4-digit year (for example, 4/2/2015). For more information, see [1-2-3 and the year 2000](#). You can also control how 1-2-3 stores and displays a date. For information, see [Setting options for dates](#).

3. Press ENTER to confirm.

Note If 1-2-3 displays *** (asterisks) in the cell, the column is not wide enough to display the date.

{button ,AL('H_ENTERING_DATES_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_DATA_OVER;H_EDITING_DATA_IN_A_CELL_STEPS;H_ENTERING_TIMES_STEPS;H_ENTERING_NUMBERS_STEPS;H_123_SETTING_OPTIONS_DATES_STEPS',0)} [See related topics](#)

Details: Entering dates

Valid dates in 1-2-3

1-2-3 can display dates between 01/01/1900 and 12/31/9999. Any dates outside this range display as (***) asterisks.

What date formats does 1-2-3 automatically recognize?

1-2-3 accepts any date formats you promote to the Frequently Used list on the status bar, plus the following formats:

- DD-MMM-YY; for example, 10-Apr-56
- DD-MMM; for example, 10-Apr
- MMM-YY; for example, Apr-56
- MM/DD/YY; for example, 04/10/56

To promote a date format to the status bar, use Range - Range Properties (Number Format tab).

If you use the format 10-Apr, 1-2-3 displays the date as entered and stores the date using the current year. If you use the format Apr-98, 1-2-3 displays the date as entered and stores the date using the first day of the month.

If you enter a date in DD-MMM format, 1-2-3 assumes the current year. But, if you enter the date without the year and with the "/", for example in the format 4/10, 1-2-3 interprets your entry as a fraction, performs the calculation, and displays the result. To avoid unexpected year interpretations, you should enter the year.

Note You can change the settings in 1-2-3 to display dates with either 2-digit or 4-digit years. For example, you can display the date as 4/10/56 or as 4/10/1956. Use File - User Setup - 1-2-3 Preferences (General tab) to change these date settings. For more information, see [Details: Setting 1-2-3 options](#).

Date formats

1-2-3 uses the operating system settings for certain date formats, called international date formats. These are marked with (System) in the table of available date formats below. International date formats may differ depending on what is selected in the operating system's regional (country) settings.

<u>Date format name</u>	<u>1234.56 appears as:</u>
12/31/96 (System)	05/18/03
12/31 (System)	05/18
31-Dec-96	18-May-03
31-Dec	18-May
Dec-96	May-03
December-96	May-03
December 31, 1996	May 18, 1903
Tuesday	Monday
Tuesday, December 31, 1996	Monday, May 18, 1903
Tue, Dec 31, 1996	Mon, May 18, 1903
1996/12/31	1903/05/18
96/12/31	03/05/18
96/12	03/05
96.12.31	03.05.18
12.31	05.18
12/31/96 10:59:59 PM (System)	05/18/03 01:26:24 PM
12/31 10:59 PM (System)	05/18 01:26 PM
1996-12-31 (ISO)	1903-05-18
1996-12-31-23:59:59 (ISO)	1903-05-18-13:26:24

{button ,AL('H_ENTERING_DATES_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROMOTING_A_NUMBER_FORMAT_STEPS;H_FORMATTING_NUMBERS_STEPS;H_NUMBER_FORMATS_OVER;',0)} [See related topics](#)

Entering times

1. Click the cell where you want to enter the time.
2. Type the time in one of the following formats:
 - HH:MM AM or PM; for example 05:57 PM
 - HH:MM:SS; for example 17:57:00
3. Press ENTER to confirm.

Note If a number in a cell remains displayed as 00:00 or 12:00 AM, it indicates an invalid value, for example, a time greater than 23:59:59.

{button ,AL('H_ENTERING_TIMES_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_DATA_OVER;H_ENTERING_DATES_STEPS;H_EDITING_DATA_IN_A_CELL_STEPS;H_ENTERING_NUMBERS_STEPS;',0)} [See related topics](#)

Details: Entering times

Valid times in 1-2-3

1-2-3 displays times between 12 AM (midnight, 00:00:00) and one second before midnight (23:59:59.) Numbers you enter outside this range will display as either 12:00 AM or 00:00 in the current time format.

What time formats does 1-2-3 automatically recognize?

1-2-3 accepts any time formats you promote to the Frequently Used list on the status bar, plus the following formats:

- HH:MM:SS AM; for example, 11:04:22 PM
- HH:MM AM; for example, 11:04 PM
- HH:MM:SS; for example, 23:04:22
- HH:MM; for example, 23:04

To promote a time format to the status bar, use Range - Range Properties (Number Format tab).

Time formats

1-2-3 uses the operating system settings for certain time formats, called international time formats. These are marked with (System) in the table of available time formats below. International time formats may differ depending on what is selected in the operating system's regional (country) settings.

Time format name	1234.56 appears as:
10:59:59 PM (System)	01:26:24 PM
10:59 PM (System)	01:26 PM
11:59:59 PM	01:26:24 PM
1:59:59 PM	1:26:24 PM
11:59 PM	01:26 PM
1:59 PM	1:26 PM
23:59:59	13:26:24
3:59:59	13:26:24
23:59	13:26
3:59	13:26
23:59:59 (ISO)	13:26:24

{button ,AL('H_ENTERING_TIMES_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROMOTING_A_NUMBER_FORMAT_STEPS;H_FORMATTING_NUMBERS_STEPS;H_NUMBER_FORMATS_OVER','0')} [See related topics](#)

Creating a cell comment

You can use a cell comment to annotate data, formulas, and @functions in cells.



[Show me a QuickDemo](#)

1. Click the cell.
2. Choose Range - Cell Comment.



3. (Optional) Click Name and Date Stamp.
4. Enter the comment text.
5. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_CREATING_A_CELL_COMMENT_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_DATA_OVER;H_123_PRINTING_CELL_COMMENTS_AND_FORMULAS_STEPS;',0)}
[See related topics](#)

Details: Creating a cell comment

1-2-3 displays a small marker in the top left corner of a cell containing a comment.

You can enter up to 1024 characters in a cell comment.

Turning off cell comment markers

Use View - Set View Preferences to turn off the display of cell comment markers for the workbook.

Deleting a cell comment

Use Edit - Clear to delete a cell comment, or display the comment and delete the text.

Note If you leave blank characters in a cell comment, then the cell comment marker will still display.

Related SmartIcons

Sets cell comment marker display and other view preferences for the current workbook

{button ,AL('H_CREATING_A_CELL_COMMENT_STEPS',1)} Go to procedure

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_A_SHEET_STEPS',0)} See related topics

Working with Excel files

You can open .XLS, .XLT, and .XLW files from these Microsoft Excel releases in the current release of 1-2-3:

- Versions 2.1, 3.0, 4.0, 5.0
- Releases 95 and 97

1-2-3 lets you open .XLT files only if they are worksheets or workbooks, and .XLW files only if they are Excel Version 4.0 bound workbook files.

You can save 1-2-3 files as .XLS files for use in these Excel releases:

- Versions 4.0 and 5.0
- Releases 95 and 97

You cannot save files in .XLW or .XLT format.

Note If you use /File Save to save a 1-2-3 file as an Excel file, 1-2-3 automatically saves the file in Excel Release 97 format. To save the file in a different Excel file format, choose Save As from the File menu.

Sharing password-protected files

If an Excel file is protected with a password, you must remove the password in Excel before you can open the file in 1-2-3.

When you save a password-protected 1-2-3 file as an .XLS file, the Excel file is not password-protected.

Sharing data between Excel and 1-2-3

When you open an Excel file in 1-2-3 or save a 1-2-3 file in Excel format, 1-2-3 preserves as much of the original data as possible. However, not all types of information can be translated or retained. 1-2-3 creates a translation log file that lists all data that could not be translated for use in 1-2-3 or Excel. The log file also lists file links and other data that require editing in either 1-2-3 or Excel.

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_THE_EXCEL_LOG_FILE_OVER;H_TRANSLATING_EXCEL_FILES_OVER;H_TRANSLATING_EXCEL_FILES_FUNCTIONS_OVER',0)} [See related topics](#)

Translating Excel files

Opening files from Excel Versions 2.1 and 3.0

When you open an Excel Version 2.1 or 3.0 file in 1-2-3, 1-2-3 retains only values and text. Formula and function results are converted to the last value saved in Excel before translation. No formatting or styles are retained. In addition, the following information is not translated:

- Solutions created with Solver and Goal Seek, unless the Goal or Solution is kept
- Custom functions, formats, menus, dialog boxes, buttons, and icons
- Macro functions
- Custom functions created with Excel add-ins, macros, or VBA
- Worksheet views
- Outlining

Opening files from later Excel releases

When you open an Excel Version 4.0 or later file in 1-2-3, 1-2-3 preserves as much of the original data as possible but does not translate the following information:

- Custom functions and formats
- OLE links
- Hyperlinks
- Outlining
- Embedded charts and other graphics
- Web queries

1-2-3 translates the data in the sheet but does not retain the Web query structure.

1-2-3 does not translate these Excel file types:

- Add-in macro (.XLA) files
- Chart (.XLC) files
- Macro (.XLM) files
- Special DLL (.XLL) files

Saving 1-2-3 files for use in Excel

Similarly, when you save a 1-2-3 file as an Excel file type, 1-2-3 preserves as much data and formatting as possible. The following information is not retained:

- Charts, maps, and other graphics
- Approach forms, reports, crosstabs, reports, and mailing labels, and other embedded data
- Query table, Web table, and hyperlink connections

Information about untranslated data appears in the translation log file.

Cell notes

1-2-3 does not translate cell notes in Excel Release 97 files. Cell notes in prior release Excel files are converted to cell comments. To make cell comment markers visible in 1-2-3, choose View - Set View Preferences.

When you save a 1-2-3 file that contains cell comments as an Excel 4 .XLS file, the cell comments are retained. 1-2-3 does not translate cell comments when you save the file that contains them as an Excel 95 or 97 file.

Characters

When you open an Excel file in 1-2-3, 1-2-3 converts ANSI characters to their LMBCS equivalent. 1-2-3 retains only ANSI characters created with the CHAR function and a value argument. If the CHAR function uses a formula result or cell reference as its argument, the log file lists the ANSI character in a message. You should determine the LMBCS equivalent and then modify the formula to produce the correct code. Use the 1-2-3 @CODE function to identify the appropriate LMBCS code.

When you save a 1-2-3 file as an Excel file, 1-2-3 converts LMBCS characters to their ANSI equivalent.

Data tables

If you open an Excel file containing data tables, 1-2-3 puts @<<XL>>TABLE(ARGUMENTS); VALUE in each cell of each table. VALUE is the last calculated value saved in Excel before translation. To recreate the data tables in 1-2-3, use Range - Analyze - What-if Table.

Date calculation

Excel lets you set the starting date from which all dates are calculated to either January 1, 1900 or January 1, 1904, while 1-2-3 uses only January 1, 1900. If you open an Excel file that uses 1904, 1-2-3 records it in the log file and assumes the dates start from January 1, 1900.

DDE links

If an Excel file contains DDE links, 1-2-3 converts the array formula that created the link to @DATALINK("Application," "Filename," "!Range"). 1-2-3 puts the @function in the top left corner of each range that contains a DDE link. If the links provide data to the file from another Windows application, the translated file won't reflect changes to the original data unless the other application is installed on the same computer where you're running 1-2-3, and the linked file is open in the other application.

File links

If an Excel file that you open in 1-2-3 contains links to other Excel files, the log file lists the linked files with drive, path, file name, and .XLS extension. You must open each of the linked files in 1-2-3 and save them in their original locations as .123, .WK4, or .WK3 files. Then you can edit the links to reference these files and use Edit - Manage Links in 1-2-3 to update all the file links.

If a 1-2-3 file that you save in Excel format contains links to other .123 files, 1-2-3 records information about the links in the log file and does not translate them. To use the untranslated file links in Excel, you must open each of the linked .123 files and save them in their original locations as .XLS files. Then change the .123 extension on the untranslated file links to .XLS. Use Edit - Links in Excel to refresh the links.

If a .123 file that you're saving as an Excel file contains links to .WK3 or .WK4 files, 1-2-3 translates the links. Use the Edit - Links command in Excel to refresh the links to the correct drive and path.

Formulas

1-2-3 and Excel use almost identical arithmetic and logical operators, except for the intersection operator in Excel, which 1-2-3 translates as @<<XL>>ISECT(RANGE1,RANGE2).

1-2-3 and Excel calculate using a slightly different order of precedence. Results are identical except when you use exponentiation and negation in the same formula. Excel carries out exponentiation after negation, while 1-2-3 carries it out before negation. The difference is noticeable in an equation such as -2^2 , which evaluates to 4 in Excel ($(-2)^2$) and to -4 in 1-2-3 ($-(2^2)$). If an .XLS file contains such formulas, 1-2-3 puts parentheses around the values to produce the same result as Excel.

Formulas that concatenate text may produce different results in the two programs because Excel concatenates text before comparisons, while 1-2-3 concatenates it after comparisons.

1-2-3 translates the error value #N/A to NA. 1-2-3 translates #VALUE!, #REF!, #NAME?, #NUM!, #DIV/O!, and #NULL! to ERR.

Functions

When you open an Excel file in 1-2-3, 1-2-3 converts Excel functions to the equivalent 1-2-3 @function when available. Similarly, when you save a 1-2-3 file as an Excel file type, 1-2-3 translates @functions to the equivalent function in Excel.

If an Excel function or a 1-2-3 @function cannot be translated, 1-2-3 records information about the function name, value and cell address in the log file.

For more detailed information, see [Translating functions in Excel files](#) and [Excel function equivalents in 1-2-3](#).

Print settings

1-2-3 translates Excel print areas that are defined as single, contiguous ranges, and retains header and footer settings that it supports, such as date and file name.

The Excel page numbering feature "Page n of n" (for example, Page 2 of 5) is translated when you open an Excel file in 1-2-3. 1-2-3 converts Excel header and footer formatting codes to 1-2-3 codes as listed below:

Excel code	1-2-3 code
&&	&

&#	%
&A	^
&B	b and end-of-format sequence
&C	Text
&D	@
&F	^
&I	i and end-of-format sequence
&L	Text
&N	no equivalent available
&P	#
&R	Text
&T	+

3D ranges

Excel Version 4.0 does not support 3D ranges. When you save a 1-2-3 file as an Excel 4 .XLS file, any named 3D range in the 1-2-3 file appears in Excel as a named 2D range on each sheet matching the sheets in the original 3D range.

For example, suppose you have a 1-2-3 file containing a 3D range, A:A1..C:B5, named Hats. If you save this file as an Excel 4 file, sheet A in the Excel file will have a range A:A1..A:B5, named Hats; sheet B will have a range, B:A1..B:B5, named Hats; and sheet C will have a range, C:A1..C:B5, named Hats.

Formulas that reference the named 3D range in 1-2-3 refer in Excel to each of the named 2D ranges.

Formula references to 3D ranges evaluate to #ERR! in Excel. To avoid problems, edit the file in 1-2-3 before you open it in Excel. Move any ranges referenced by formulas so that the data is either completely in one sheet or the other.

Rows

If a 1-2-3 file contains data beyond row 8192, you can save it as an Excel 97 .XLS file. You cannot save the file as an Excel 4 or 95 .XLS file.

Sheet and range names

Sheet names in Excel bound workbook files can contain hyphens. 1-2-3 sheet names cannot contain hyphens. When you open an Excel bound workbook file in 1-2-3, sheet names containing hyphens are translated to the appropriate sheet letter according to the position of the sheet in the file.

Range names in 1-2-3 can contain spaces; range names in Excel cannot. When you open a 1-2-3 file that was saved as an Excel file, Excel prompts you to replace spaces in range names with another accepted character, such as an _ (underscore).

Excel lets you assign the same range name in different sheets in a file, whereas in 1-2-3, each range name in a file must be unique. If you open an Excel file that uses the same range name in different sheets, 1-2-3 retains the first occurrence of the range name and appends an incremented suffix to subsequent occurrences. For example, if the Excel file has a range named SALARY in more than one sheet, 1-2-3 leaves the first occurrence of the range name as is and changes the subsequent occurrences to SALARY1, SALARY2, and so on.

{button ,AL('H_THE_EXCEL_LOG_FILE_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_TRANSLATING_EXCEL_FILES_FORMATTING_OVER','0)} [See related topics](#)

Translating functions in Excel files

Many Excel functions have equivalents in 1-2-3. For information on how Excel functions map to 1-2-3 @functions, see [Excel function equivalents in 1-2-3](#).

Using Excel functions in 1-2-3

When you open an Excel file in 1-2-3, 1-2-3 translates the Excel functions to the equivalent 1-2-3 @function. For example, 1-2-3 converts MEDIAN to @MEDIAN. In some cases, 1-2-3 translates different Excel functions to the same 1-2-3 @function but changes the arguments.

1-2-3 lists information in a log file about any Excel functions that could not be translated. Excel functions that have no equivalent in 1-2-3 display in the 1-2-3 sheet like this:

@<<XL>>FUNCTION NAME(ARGUMENTS); CURRENT VALUE

User-defined or third-party functions that have no equivalent in 1-2-3 display in the 1-2-3 sheet like this:

@<<XLUSERFN>>FUNCTION NAME(ARGUMENTS); CURRENT VALUE

In both cases, these functions evaluate to ERR. If you move to the cell that contains an untranslated function, double-click or press F2 to edit the cell, and then press RETURN, 1-2-3 converts the cell contents to a text string until you replace it with a valid 1-2-3 formula.

Using 1-2-3 @functions in Excel

When you save a 1-2-3 file as an Excel file, 1-2-3 saves the @functions as equivalent Excel functions when possible. In some cases, 1-2-3 may translate the same @function to different Excel functions depending on the arguments specified in the @function.

If the file contains any 1-2-3 @functions that have no equivalent in Excel, 1-2-3 lists the @function name, value, and cell address in a translation log file. 1-2-3 @functions that have no equivalent in Excel display in the Excel worksheet as a label:

@FUNCTION NAME(ARGUMENTS); CURRENT VALUE

Using untranslated functions

If you open an Excel file in 1-2-3 and then save that file again as an Excel file, the functions that did not translate in 1-2-3 must be translated again in Excel.

For example, suppose an Excel file contains the function NOMINAL(5.3543%,4). When you open the Excel file in 1-2-3, this function is not translated. It appears in the sheet as @<<XL>>NOMINAL(5.3543%,4);0.0525 and evaluates to ERR.

If you save the 1-2-3 file containing this untranslated function as an Excel file, the function is not translated back to its original form in Excel. The log file lists the location of the function, along with the message "Cannot translate @Function," and the current value of the @function.

To use untranslated Excel and 1-2-3 functions, you can:

- Write an add-in function using LotusScript (in 1-2-3), VBA (in Excel), or an add-in development application
- Build a formula that recreates the untranslated function
- Use the current value

If you use the equivalent 1-2-3 @functions in new calculations, you must adjust any dependent formulas to reflect the way these @functions work in 1-2-3. Cells containing untranslatable functions evaluate to ERR in 1-2-3. If the untranslated Excel function is supported by an add-in that you can use with 1-2-3, it evaluates correctly when you load the add-in.

If a user-defined function was an Excel 4.0 or later macro or VBA macro, you can copy the function as text into the 1-2-3 Script Editor and use it in LotusScript. After you edit the function as needed for use in 1-2-3, the function evaluates when the translated Excel file is open in 1-2-3.

Array functions

1-2-3 translates Excel functions that use an array of arguments specified inside curly braces {}. However, 1-2-3 does not translate Excel functions that return an array. In such cases, 1-2-3 writes the array values in empty cells and then uses the written values to calculate the function.

Functions that return an ANSI character

For Excel functions that return an ANSI character, 1-2-3 annotates the cell containing the translated function. 1-2-3 adds a semicolon after the function, followed by the value of the function as it appears in Excel. 1-2-3 retains ANSI

characters only when created with the CHAR function and a value argument.

For example, if A1 contains =CHAR(181), A1 displays µ in Excel and 1-2-3. However, if A1 contains =CHAR(A2) and A2 contains the value 181, when you open the file containing this function in 1-2-3, 1-2-3 translates the function to @CHAR(A2);µ. The cell containing the function displays Å, the LMBCS equivalent of 181. You can use @CODE in 1-2-3 to find the appropriate LMBCS code.

DB

If you open an Excel file that contains the Excel function =DB(cost,salvage,life,period,month), 1-2-3 puts @<<XL>>DB(cost,salvage,life,period,month);VALUE in each cell that holds this function, since the 1-2-3 function @DB takes only four arguments. If any of the cells contain the Excel function =DB(cost,salvage,life,period), 1-2-3 translates this function, but, since 1-2-3 uses a slightly different algorithm, the result is more accurate than that of Excel.

FIND, MATCH, FASTMATCH, and WEEKDAY

1-2-3 translates the Excel functions FIND, MATCH, FASTMATCH, and WEEKDAY to equivalent 1-2-3 @functions but alters the results to return the same values as Excel. For example, 1-2-3 translates WEEKDAY to @WEEKDAY but increases the result by a factor of 2 because Excel uses 1 to 7 for Sunday through Saturday, while 1-2-3 uses 0 to 6 for Monday through Sunday.

Some Excel functions use different value arguments than the equivalent 1-2-3 @functions. For example, in Excel, MATCH can take 0, 1, or -1 as an optional argument, while in 1-2-3 @MATCH can take 0, 1, or 2. In such cases, 1-2-3 translates the Excel function and converts its arguments to produce the same result as Excel.

In cases where the value argument in Excel is the result of a formula or cell reference, 1-2-3 converts the argument to the 1-2-3 equivalent and does not retain the formula or cell reference. To translate such functions correctly, make sure you recalculate the Excel file before saving it in Excel, and then open it in 1-2-3.

FIXED

When you open an Excel file in 1-2-3, FIXED translates to @STRING; when you save a 1-2-3 file as an Excel file, @STRING translates to FIXED. Some unexpected results, not reported in the log file, can occur during translation of these functions.

1-2-3 lets you specify up to 116 decimal places for the n argument in @STRING; Excel allows up to 127 decimal places. If the number of decimal places specified in FIXED is greater than 116, this function results in ERR when you open the Excel file in 1-2-3.

If the n argument in the @STRING function is negative, the number returned by @STRING is formatted as scientific notation in 1-2-3. In Excel, if the decimals argument for FIXED is negative, the number returned appears rounded to the left of the decimal point. When you open an Excel file in 1-2-3, this number appears formatted as scientific notation.

To format a number returned by FIXED with commas, set the no_commas argument to FALSE. When you open the Excel file in 1-2-3, the number appears without commas, even though no_commas was set to FALSE. The argument n+1000 in @STRING indicates Comma format. This argument causes the FIXED function to appear as #VALUE! when you open the file in Excel. The argument n+10000 in @STRING indicates General format. This argument also causes the FIXED function to appear as #VALUE! when you open the file in Excel.

INTERCEPT

1-2-3 translates INTERCEPT to @REGRESSION. 1-2-3 assumes the x- and y-range values are in columns and that the y-range contains the same number of rows as the x-range. If the x- or y-range data is in rows, @REGRESSION evaluates to ERR. To display the correct result, transpose the x- and y-range data to appear in columns instead of rows.

MINVERSE and MMULT

1-2-3 doesn't have equivalent @functions for MINVERSE or MMULT. Instead, use the Range - Analyze - Invert Matrix, or Range - Analyze - Multiply Matrix, command.

{button ,AL('H_TRANSLATING_EXCEL_FILES_OVER',0)} [See related topics](#)

Excel function equivalents in 1-2-3

The table below lists Excel functions and their equivalents in the current release of 1-2-3. In some cases, 1-2-3 does not have an equivalent @function but provides comparable functionality through menu commands or logical operators.

For more detailed information on sharing files that contain functions with Excel, see [Translating functions in Excel files](#).

Excel function	1-2-3 @function
ABS	@ABS
ACOS	@ACOS
ACOSH	@ACOSH
ACCRINT	@ACCRUED
ACCRINTM	No equivalent
ADDRESS	No equivalent
AMORDEGRC	No equivalent
AMORLINC	No equivalent
AND	#AND#
AREAS	No equivalent
ASIN	@ASIN
ASINH	@ASINH
ATAN	@ATAN
ATAN2	@ATAN2
ATANH	@ATANH
AVEDEV	@AVEDEV
AVERAGE	@PUREAVG
AVERAGEA	No equivalent
BASE	No equivalent
BESSELI	@BESSELI
BESSELJ	@BESSELJ
BESSELK	@BESSELK
BESSELY	@BESSELY
BETADIST	No equivalent
BETAINV	No equivalent
BIN2DEC	@BIN2DEC
BIN2HEX	@BIN2HEX
BIN2OCT	@BIN2OCT
BINOMDIST	@BINOMIAL
CALL	No equivalent
CEILING	@ROUNDM
CELL	@CELL
CHAR	@CHAR
CHIDIST	@CHIDIST
CHIINV	@CHIDIST
CHITEST	No equivalent
CHOOSE	@CHOOSE
CLEAN	@CLEAN
CODE	@CODE

COLUMN	<u>@COLUMN</u>
COLUMNS	<u>@COLS</u>
COMBIN	<u>@COMBIN</u>
COMPLEX	No equivalent
CONCATENATE	No equivalent
CONFIDENCE	<u>@CONFIDENCE</u>
CONVERT	<u>@CONVERT</u>
CORREL	<u>@CORREL</u>
COS	<u>@COS</u>
COSH	<u>@COSH</u>
COUNT	<u>@PURECOUNT</u>
COUNTA	<u>@COUNT</u>
COUNTBLANK	<u>@COUNTBLANK</u>
COUNTIF	<u>@COUNTIF</u>
COUPDAYBS	<u>@COUPDAYBS</u>
COUPDAYS	<u>@COUPDAYS</u>
COUPDAYSNC	<u>@COUPDAYSNC</u>
COUPNCD	<u>@COUPNCD</u>
COUPNUM	<u>@COUPNUM</u>
COUPPCD	<u>@COUPPCD</u>
COVAR	<u>@COV</u>
CRITBINOM	<u>@CRITBINOMIAL</u>
CROSSTAB	No equivalent
CUMIPMT	<u>@IPAYMT</u>
CUMPRINC	<u>@PPAYMT</u>
DATE	<u>@DATE</u>
DATEVALUE	<u>@DATEVALUE</u>
DAVERAGE	<u>@DAVG</u>
DAY	<u>@DAY</u>
DAYS360	<u>@DAYS360</u>
	<u>@DAYS</u>
DB	<u>@DB</u>
DCOUNT	<u>@DPURECOUNT</u>
DCOUNTA	<u>@DCOUNT</u>
DDB	<u>@DDB</u>
DEC2BIN	<u>@DEC2BIN</u>
DEC2HEX	<u>@DEC2HEX</u>
DEC2OCT	<u>@DEC2OCT</u>
DEGREES	<u>@RADTODEG</u>
DELTA	No equivalent
DEVSQ	<u>@DEVSQ</u>
DGET	<u>@DGET</u>
DISC	<u>@DISC</u>
DMAX	<u>@DMAX</u>
DMIN	<u>@DMIN</u>

DOLLAR	No equivalent
DOLLARDE	<u>@FRAC2DEC</u>
DOLLARFR	<u>@DEC2FRAC</u>
DPRODUCT	No equivalent
DSTDEV	<u>@DSTDS</u>
DSTDEVP	<u>@DSTD</u>
DSUM	<u>@DSUM</u>
DURATION	<u>@DURATION</u>
DVAR	<u>@DVAR</u>
DVARP	<u>@DVAR</u>
EDATE	<u>@NEXTMONTH</u>
EFFECT	No equivalent
EOMONTH	<u>@NEXTMONTH</u>
ERF	<u>@ERF</u>
ERFC	<u>@ERFC</u>
ERROR.TYPE	No equivalent
EVEN	<u>@EVEN</u>
EXACT	<u>@EXACT</u>
EXP	<u>@EXP</u>
EXPONDIST	<u>@EXPONDIST</u>
FACT	<u>@FACT</u>
FACTDOUBLE	No equivalent
FALSE	<u>@FALSE</u>
FASTMATCH	<u>@MATCH</u>
FDIST	<u>@FDIST</u>
FIND	<u>@FIND</u>
FINV	<u>@FDIST</u>
FISHER	<u>@FISHER</u>
FISHERINV	<u>@FISHERINV</u>
FIXED	<u>@STRING</u>
FLOOR	<u>@ROUND</u>
FORECAST	<u>@FORECAST</u>
FREQUENCY	No equivalent
FTEST	<u>@FTEST</u>
FV	<u>@FVAL</u>
FVSCHEDULE	No equivalent
GAMMADIST	No equivalent
GAMMAINV	No equivalent
GAMMALN	<u>@GAMMALN</u>
GCD	No equivalent
GEOMEAN	<u>@GEOMEAN</u>
GESTEP	No equivalent
GETPIVOTDATA	No equivalent
GROWTH	No equivalent
HARMEAN	<u>@HARMEAN</u>

HEX2BIN	<u>@HEX2BIN</u>
HEX2DEC	<u>@HEX2DEC</u>
HEX2OCT	<u>@HEX2OCT</u>
HLOOKUP	<u>@HLOOKUP</u>
hour	<u>@hour</u>
HYPERLINK	No equivalent
HYPGEOMDIST	<u>@HYPGEOMDIST</u>
IF	<u>@IF</u>
IMABS	No equivalent
IMAGINARY	No equivalent
IMARGUMENT	No equivalent
IMCONJUGATE	No equivalent
IMCOS	No equivalent
IMDIV	No equivalent
IMEXP	No equivalent
IMLN	No equivalent
IMLOG2	No equivalent
IMLOG10	No equivalent
IMPOWER	No equivalent
IMPRODUCT	No equivalent
IMREAL	No equivalent
IMSIN	No equivalent
IMSQRT	No equivalent
IMSUB	No equivalent
IMSUM	No equivalent
INDEX	<u>@INDEX</u>
INDIRECT	<u>@@</u>
INFO	<u>@INFO</u>
INT	<u>@ROUNDDOWN</u>
INTERCEPT	<u>@REGRESSION</u>
INTRATE	<u>@INTRATE</u>
IPMT	<u>@IPAYMT</u>
IRR	<u>@IRR</u>
ISBLANK	<u>@ISEMPTY</u>
ISERR	<u>@ISERR</u>
ISERROR	<u>@ISERR</u>
ISEVEN	No equivalent
ISLOGICAL	No equivalent
ISNA	<u>@ISNA</u>
ISNONTEXT	No equivalent
ISNUMBER	<u>@ISNUMBER</u>
ISODD	No equivalent
ISREF	<u>@ISRANGE</u>
ISTEXT	<u>@ISSTRING</u>
KURT	<u>@KURTOSIS</u>

LARGE	<u>@LARGE</u>
LCM	No equivalent
LEFT	<u>@LEFT</u>
LEN	<u>@LENGTH</u>
LINEST	No equivalent
LN	<u>@LN</u>
LOG	No equivalent
LOG10	<u>@LOG</u>
LOGEST	No equivalent
LOGINV	<u>@LOGINV</u>
LOGNORMDIST	<u>@LOGNORMDIST</u>
LOOKUP	No equivalent
LOWER	<u>@LOWER</u>
MATCH	<u>@MATCH</u>
MAX	<u>@PUREMAX</u>
MAXA	No equivalent
MDETERM	No equivalent
MDURATION	<u>@MDURATION</u>
MEDIAN	<u>@MEDIAN</u>
MID	<u>@MID</u>
MIN	<u>@PUREMIN</u>
MINA	No equivalent
MINUTE	<u>@MINUTE</u>
MINVERSE	No equivalent; see <u>Inverting a matrix</u>
MIRR	<u>@MIRR</u>
MMULT	No equivalent; see <u>Multiplying matrixes</u>
MOD	<u>@MOD</u>
MODE	<u>@MODE</u>
MONTH	<u>@MONTH</u>
MROUND	<u>@ROUNDM</u>
MULTINOMIAL	No equivalent
N	<u>@N</u>
NA	<u>@NA</u>
NEGBINOMDIST	<u>@NEGBINOMDIST</u>
NETWORKDAYS	<u>@NETWORKDAYS</u>
NOMINAL	No equivalent
NORMDIST	<u>@NORMAL</u>
NORMINV	<u>@NORMAL</u>
NORMSDIST	<u>@NORMAL</u>
NORMSINV	<u>@NORMSINV</u>
NOT	#NOT#
NOW	<u>@NOW</u>
NPER	<u>@NPER</u>
NPV	<u>@NPV</u>

OCT2BIN	<u>@OCT2BIN</u>
OCT2DEC	<u>@OCT2DEC</u>
OCT2HEX	<u>@OCT2HEX</u>
ODD	<u>@ODD</u>
ODDFPRICE	No equivalent
ODDFYIELD	No equivalent
ODDLPRICE	No equivalent
ODDLYIELD	No equivalent
OFFSET	No equivalent
OR	#OR#
PEARSON	<u>@CORREL</u>
PERCENTILE	<u>@PERCENTILE</u>
PERCENTRANK	<u>@PRANK</u>
PERMUT	<u>@PERMUT</u>
PI	<u>@PI</u>
PMT	<u>@PAYMT</u>
POISSON	<u>@POISSON</u>
POWER	No equivalent
PPMT	<u>@PPAYMT</u>
PRICE	<u>@PRICE</u>
PRICEDISC	<u>@PRICEDISC</u>
PRICEMAT	<u>@PRICEMAT</u>
PROB	<u>@PROB</u>
PRODUCT	<u>@PRODUCT</u>
PROPER	<u>@PROPER</u>
PV	<u>@PVAL</u>
QUARTILE	<u>@QUARTILE</u>
QUOTIENT	<u>@QUOTIENT</u>
RADIANS	<u>@DEGTORAD</u>
RAND	<u>@RAND</u>
RANDBETWEEN	<u>@RANDBETWEEN</u>
RANK	<u>@RANK</u>
RATE	<u>@IRATE</u>
RECEIVED	<u>@RECEIVED</u>
REGISTER.ID	No equivalent
REPLACE	<u>@REPLACE</u>
REPT	<u>@REPEAT</u>
RIGHT	<u>@RIGHT</u>
ROMAN	No equivalent
ROUND	<u>@ROUND</u>
ROUNDDOWN	<u>@ROUNDDOWN</u>
ROUNDUP	<u>@ROUNDUP</u>
ROW	<u>@ROW</u>
ROWS	<u>@ROWS</u>
RSQ	<u>@RSQ</u>

SEARCH	No equivalent
SECOND	<u>@SECOND</u>
SERIESSUM	<u>@SERIESSUM</u>
SIGN	<u>@SIGN</u>
SIN	<u>@SIN</u>
SINH	<u>@SINH</u>
SKEW	<u>@SKEWNESS</u>
SLN	<u>@SLN</u>
SLOPE	No equivalent
SMALL	<u>@SMALL</u>
SQLREQUEST	No equivalent
SQRT	<u>@SQRT</u>
SQRTPI	<u>@SQRTPI</u>
STANDARDIZE	<u>@STANDARDIZE</u>
STDEV	<u>@PURESTD</u>
STDEVA	No equivalent
STDEVP	<u>@PURESTD</u>
STDEVPA	No equivalent
STEYX	<u>@STEYX</u>
SUBSTITUTE	No equivalent
SUBTOTAL	No equivalent
SUM	<u>@SUM</u>
SUMIF	<u>@SUMIF</u>
SUMPRODUCT	<u>@SUMPRODUCT</u>
SUMSQ	<u>@SUMSQ</u>
SUMX2MY2	<u>@SUMX2MY2</u>
SUMX2PY2	<u>@SUMX2PY2</u>
SUMXMY2	<u>@SUMXMY2</u>
SYD	<u>@SYD</u>
T	No equivalent
TAN	<u>@TAN</u>
TANH	<u>@TANH</u>
TBILLEQ	<u>@TBILLEQ</u>
TBILLPRICE	<u>@TBILLPRICE</u>
TBILLYIELD	<u>@TBILLYIELD</u>
TDIST	<u>@TDIST</u>
TEXT	<u>@STRING</u>
TIME	<u>@TIME</u>
TIMEVALUE	<u>@TIMEVALUE</u>
TINV	<u>@TDIST</u>
TODAY	<u>@TODAY</u>
TRANSPOSE	No equivalent; see <u>Transposing data</u>
TREND	No equivalent
TRIM	<u>@TRIM</u>
TRIMMEAN	<u>@TRIMMEAN</u>

TRUE	<u>@TRUE</u>
TRUNC	<u>@TRUNC</u>
TTEST	<u>@TTEST</u>
TYPE	No equivalent
UPPER	<u>@UPPER</u>
VALUE	<u>@VALUE</u>
VAR	<u>@PUREVARS</u>
VARA	No equivalent
VARP	<u>@PUREVAR</u>
VARPA	No equivalent
VDB	<u>@VDB</u>
VLOOKUP	<u>@VLOOKUP</u>
WEEKDAY	<u>@WEEKDAY</u>
WEIBULL	<u>@WEIBULL</u>
WORKDAY	<u>@WORKDAY</u>
XIRR	No equivalent
XNPV	No equivalent
YEAR	<u>@YEAR</u>
YEARFRAC	<u>@YEARFRAC</u>
YIELD	<u>@YIELD</u>
YIELDDISC	<u>@YIELDDISC</u>
YIELDMAT	<u>@YIELDMAT</u>
ZTEST	<u>@ZTEST</u>

{button ,AL('H_TRANSLATING_EXCEL_FILES_OVER;',0)} [See related topics](#)

Translating formatting information in Excel files

When you open a file from Excel Version 2.1 or 3.0 in 1-2-3, no formatting or styles are retained. 1-2-3 translates formatting information in files created in Excel Version 4.0 or later as described below.

Border and pattern settings

When you open an Excel file in 1-2-3 or save a 1-2-3 file in Excel format, 1-2-3 converts interior patterns and border styles to the closest available equivalent.

Color settings

When you open an Excel file in 1-2-3, the colors are translated as closely as possible to the 240 colors available in 1-2-3.

When you save a 1-2-3 file in Excel Version 4.0 format, the colors are translated as closely as possible to the 16 standard default colors supported in that release. When you save a 1-2-3 file in Excel Version 5.0 or later format, 1-2-3 translates colors as closely as possible to the 56 colors available in Excel.

Column and row sizes

1-2-3 supports column widths of 0 to 240 characters and converts column widths of 241 through 255 to 240 characters.

1-2-3 supports row heights of 0 to 255 points and converts row heights of 256 through 409 to 255 points.

Fonts

If the fonts used in the Excel file aren't available, 1-2-3 substitutes the closest available equivalents. The status bar displays the name of the original font used in the selected cell.

Number formats

1-2-3 translates standard number formats to the closest available equivalent. If a file contains custom number formats, 1-2-3 converts them to the closest equivalent number format but doesn't preserve other custom formatting, such as individual characters or text.

If you assigned a custom color to negative values, 1-2-3 displays them in red. Other colors assigned with custom number formats are not translated.

{button ,AL('H_TRANSLATING_EXCEL_FILES_OVER','0')} [See related topics](#)

Excel Chart commands

The table below lists Chart commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

<u>Excel command</u>	<u>1-2-3 equivalent</u>
Chart - Chart Type	Chart - Chart Type
Chart - Source Data	Choose Chart - Chart Properties and click the Ranges tab. Or, choose Chart - Chart Series.
Chart - Chart Options	From the Chart menu, choose the chart part you want to change.
Chart - Location	There is no equivalent.
Chart - Add Data	From the Chart menu, choose Ranges. Select the part and subpart to which you want to add a range. Then respecify the entire range, including the data you want to add.
Chart - Add Trendline	For XY charts only, choose Chart - Series. Click the Series trend tab.
Chart - 3-D View	Create a 3D pie or doughnut chart. Choose Chart - Pie or Chart Doughnut. Click the 3D tab.

Excel Data commands

The table below lists Data commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Data - Sort	Range - Sort
Data - Filter - AutoFilter	There is no equivalent.
Data - Filter - Show All	There is no equivalent.
Data - Filter - Advanced Filter	Choose Create - Database - Query Table. Use the Find Assistant to specify a query (find).
Data - Form	There is no equivalent.
Data - Subtotals	File - User Setup - SmartLabels Setup.
Data - Validation	There is no equivalent.
Data - Table	Range - Analyze - What-If Table
Data - Text to Columns	Range - Parse
Data - Consolidate	There is no equivalent.
Data - Group and Outline - Hide Detail	Sheet - Outline - Collapse
Data - Group and Outline - Show Detail	Sheet - Outline - Expand
Data - Group and Outline - Group	Sheet - Outline - Demote
Data - Group and Outline - Ungroup	Sheet - Outline - Promote
Data - Group and Outline - Auto Outline	There is no equivalent.
Data - Group and Outline - Clear Outline	Sheet - Outline - Clear Outline
Data - Group and Outline - Settings	Choose Sheet - Sheet Properties. Click the Outline tab.
Data - Pivot Table Report	There is no equivalent.
Data - Get External Data - Run Web Query	File - Internet - Get Data from Web
Data - Get External Data - Run Database Query	Create - Database - Query Table
Data - Get External Data - Create New Query	Create - Database - Query Table
Data - Get External Data - Edit Query	Create - Database - Query Table
Data - Get External Data - Data Range Properties	There is no equivalent.
Data - Get External Data - Parameters	There is no equivalent.
Data - Refresh Data	Query Table - Refresh

Excel Draw commands

The table below lists Draw commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Draw - Group	Drawing - Group
Draw - Ungroup	Drawing - Ungroup
Draw - Regroup	There is no equivalent.
Draw - Order - Bring to Front	Drawing - Bring to Front
Draw - Order - Send to Back	Drawing - Send to Back
Draw - Order - Bring Forward	There is no equivalent.
Draw - Order - Send Backward	There is no equivalent.
Draw - Snap - To Grid	Choose Drawing - Drawing Properties. Click the Basics tab and under Fasten to cells, select an option.
Draw - Snap - To Shape	There is no equivalent.
Draw - Nudge	There is no equivalent.
Draw - Align or Distribute	There is no equivalent.
Draw - Rotate or Flip - Free Rotate	There is no equivalent.
Draw - Rotate or Flip - Rotate Left	Choose Drawing - Drawing Properties. Click the Basics tab and specify the degree of rotation in the "Rotation" box.
Draw - Rotate or Flip - Rotate Right	Choose Drawing - Drawing Properties. Click the Basics tab and specify the degree of rotation in the "Rotation" box.
Draw - Rotate or Flip - Flip Horizontal	Drawing - Flip Left-Right
Draw - Rotate or Flip - Flip Vertical	Drawing - Flip Top-Bottom
Draw - Reroute Connectors	There is no equivalent.
Draw - Edit Points	There is no equivalent.
Draw - Change AutoShape	There is no equivalent.
Draw - Set AutoShape Defaults	There is no equivalent.

Excel Edit commands

The table below lists Edit commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Edit - Undo	Edit - Undo
Edit - Repeat	There is no equivalent.
Edit - Cut	Edit - Cut
Edit - Copy	Edit - Copy
Edit - Paste	Edit - Paste
Edit - Paste Special	Edit - Paste Special
Edit - Paste As Hyperlink	There is no equivalent.
Edit - Fill - Down	Edit - Copy Down
Edit - Fill - Right	Edit - Copy Right
Edit - Fill - Up	There is no equivalent.
Edit - Fill - Left	There is no equivalent.
Edit - Fill - Across Worksheets	Select a multiple-sheet range, then right click the selection on the last sheet in the range, and choose Copy Back.
Edit - Fill - Series	Range - Fill
Edit - Fill - Justify	There is no equivalent.
Edit - Clear - All	Choose Edit - Clear. Select what you want to delete.
Edit - Clear - Formats	Edit - Clear Styles
Edit - Clear - Contents	Edit - Clear
Edit - Clear - Comments	Edit - Clear
Edit - Delete	Range - Delete
Edit - Delete Sheet	Sheet - Delete Sheet
Edit - Move or Copy Sheet	Sheet - Move or Copy Sheet
Edit - Find	Edit - Find & Replace
Edit - Replace	Edit - Find & Replace
Edit - Go To	Edit - Go To
Edit - Links	Edit - Manage Links
Edit - Object - Edit	From the <object name> menu, choose Edit.
Edit - Object - Open	From the <object name> menu, choose Open.
Edit - Object - Convert	There is no equivalent.

Excel File commands

The table below lists File commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
File - New	File - New Workbook
File - Open	File - Open
File - Close	File - Close
File - Save	File - Save
File - Save As	File - Save As
File - Save As HTML	File - Internet - Convert to Web Pages
File - Save Workspace	There is no equivalent.
File - Page Setup	File - Preview & Page Setup
File - Print Area - Set Print Area	Select the range you want to print. Under the File menu, choose Print and specify "Selected Range."
File - Print Area - Clear Print Area	There is no equivalent.
File - Print Preview	File - Preview & Page Setup
File - Print	File - Print
File - Send To - Mail Recipient	File - TeamMail
File - Send To - Routing Recipient	File - TeamMail
File - Send To - Exchange Folder	File - TeamMail
File - Properties	File - Workbook Properties
File - Exit	File - Exit

Excel Format commands

The table below lists Format commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Format - Cells	Range - Range Properties.
Format - Selected Chart Area	Chart - Chart Properties
Format - AutoShape	Drawing - Drawing Properties
Format - Picture	Drawing - Drawing Properties
Format - Object	<object name> - <object> Properties
Format - Row - Height	Choose Range - Range Properties. Click the Basics tab and specify the height.
Format - Row - AutoFit	Choose Range - Range Properties. Click the Basics tab and select "Fit largest font."
Format - Row - Hide	Choose Range - Range Properties. Click the Basics tab and select "Hide row."
Format - Row - Unhide	Select a range that spans the row you want to display. Choose Range - Range Properties. Click the Basics tab and deselect "Hide row."
Format - Column - Width	Choose Range - Range Properties. Click the Basics tab and specify the width.
Format - Column - AutoFit Selection	Choose Range - Range Properties. Click the Basics tab and click the icon beside the Width box.
Format - Column - Hide	Choose Range - Range Properties. Click the Basics tab and select "Hide column."
Format - Column - Unhide	Select a range that spans the column you want to display. Choose Range - Range Properties. Click the Basics tab and deselect "Hide column."
Format - Column - Standard Width	Choose Range - Range Properties. Click the Basics tab and select "Default width."
Format - Sheet - Rename	Choose Sheet - Sheet Properties. Type a name in the "Sheet name" box.
Format - Sheet - Hide	Sheet - Hide
Format - Sheet - Unhide	Sheet - Unhide
Format - Sheet - Background	There is no equivalent.
Format - AutoFormat	Choose Range - Range Properties. Click the Named Style tab and then click the Style Gallery button.

Format - Conditional Formatting

There is no equivalent.

Format - Style

Choose Range - Range
Properties. Click the Named
Style tab.

Excel Help commands

The table below lists Help commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Help - Microsoft Excel Help	Help - Ask the Expert
Help - Contents and Index	Help - Help Topics
Help - What's This	There is no equivalent.
Help - Microsoft on the Web	Help - Lotus Internet Support
Help - Lotus 1-2-3 Help	Help - Microsoft Excel Menu Finder
Help - About Microsoft Excel	Help - About 1-2-3

Excel Insert commands

The table below lists Insert commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Insert - Cells	Range - Insert
Insert - Rows	Range - Insert
Insert - Columns	Range - Insert
Insert - Worksheet	Create - Sheet
Insert - Chart	Create - Chart
Insert - Page Break	Edit - Page Break
Insert - Function	Create - @Function
Insert - Name - Define	Range - Name
Insert - Name - Paste	There is no equivalent.
Insert - Name - Create	Range - Name
Insert - Name - Apply	There is no equivalent.
Insert - Name - Label	Range - Name
Insert - Comment	Range - Cell Comment
Insert - Picture - Clip Art	Choose Create - Drawing - Picture. Select the picture file.
Insert - Picture - From File	Choose Create - Drawing - Picture. Select the picture file.
Insert - Picture - AutoShapes	Choose Create - Drawing. Select the shape you want to insert.
Insert - Picture - Organization Chart	There is no equivalent.
Insert - Picture - WordArt	There is no equivalent.
Insert - Map	Create - Map
Insert - Object	Create - Object
Insert - Hyperlink	Create - Hyperlink

Excel Map commands

The table below lists Map commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Map - Features	There is no equivalent.
Map - Add Feature	There is no equivalent.
Map - Save Map Template	There is no equivalent.
Map - Delete Map Template	There is no equivalent.
Map - Refresh	Map - Redraw
Map - Open Custom Pin Map	There is no equivalent.
Map - Close Custom Pin Map	There is no equivalent.
Map - Delete Custom Pin Map	There is no equivalent.

Excel Tools commands

The table below lists Tools commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Tools - Spelling	Edit - Check Spelling
Tools - AutoCorrect	There is no equivalent.
Tools - Look Up Reference	There is no equivalent.
Tools - Share Workbook	There is no equivalent.
Tools - Track Changes	There is no equivalent.
Tools - Merge Workbooks	Choose File - Open. Select the file you want to merge into the current workbook. Select "Combine with current workbook," and click Combine.
Tools - Protection - Protect Sheet	Choose Sheet - Sheet Properties. Click the Basics tab and select "Lock contents of protected cells in this sheet."
Tools - Protection - Protect Workbook	Choose File - Workbook Properties. Click the Security tab and select "Lock workbook."
Tools - Protection - Protect and Share Workbook	Choose File - Workbook Properties. Click the Security tab and select "Always get reservation when opening workbook."
Tools - Goal Seek	Range - Analyze - Backsolver
Tools - Scenarios	Range - Version - New Version
Tools - Auditing	There is no equivalent.
Tools - Macro - Macros	Edit - Scripts & Macros
Tools - Macro - Record New Macro	Edit - Scripts & Macros
Tools - Macro - Visual Basic Editor	There is no equivalent.
Tools - Add-Ins	File - Add-Ins - Manage Add-Ins
Tools - Customize	File - User Setup - SmartIcons Setup
Tools - Options	File - Workbook Properties or File - User Setup - 1-2-3 Preferences
Tools - Wizard	There is no equivalent.

Excel View commands

The table below lists View commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
View - Normal	There is no equivalent.
View - Page Break Preview	There is no equivalent.
View - Toolbars - Standard	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Universal.
View - Toolbars - Formatting	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Formatting.
View - Toolbars - Chart	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Chart.
View - Toolbars - Control Toolbox	There is no equivalent.
View - Toolbars - Drawing	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Draw.
View - Toolbars - Exit Design Mode	There is no equivalent.
View - Toolbars - External Data	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Query Table.
View - Toolbars - Forms	There is no equivalent.
View - Toolbars - Picture	There is no equivalent.
View - Toolbars - PivotTable	There is no equivalent.
View - Toolbars - Reviewing	There is no equivalent.
View - Toolbars - Visual Basic	There is no equivalent.
View - Toolbars - Web	File - User Setup - SmartIcons Setup. From the "Bar name" list, select Internet Tools.
View - Toolbars - WordArt	There is no equivalent.
View - Toolbars - Customize	File - User Setup - SmartIcons Setup.
View - Formula Bar	View - Hide/Show Edit Line
View - Status Bar	View - Hide/Show Status Bar
View - Header and Footer	Choose File - Preview & Page Setup. Click the Headers & Footers tab.
View - Comments	View - Set View Preferences
View - Custom Views	There is no equivalent.
View - Full Screen	There is no equivalent.
View - Zoom	View - Zoom to

Excel Window commands

The table below lists Window commands in Excel 97 and their closest equivalents in the current release of 1-2-3.

Excel command	1-2-3 equivalent
Window - New Window	Window - New Window
Window - Arrange	Window - Tile Left-Right, Tile Top-Bottom, or Cascade
Window - Hide	There is no equivalent.
Window - Split	View - Split
Window - Freeze Panes	View - Split or Titles

Microsoft Excel command equivalents in 1-2-3

The topics below list commands in Excel 97 and their closest equivalents in the current release of 1-2-3. In some cases, 1-2-3 does not have an equivalent command but provides comparable functionality.

[Excel File commands](#)

[Excel Edit commands](#)

[Excel View commands](#)

[Excel Insert commands](#)

[Excel Format commands](#)

[Excel Tools commands](#)

[Excel Data commands](#)

[Excel Window commands](#)

[Excel Help commands](#)

[Excel Chart commands](#)

[Excel Map commands](#)

[Excel Draw commands](#)

{button ,AL('H_123_EXCEL_FUNC_EQUIV_REF;H_TRANSLATING_EXCEL_FILES_OVER',0)} [See related topics](#)

The Excel log file

When you open an Excel file in 1-2-3 or save a 1-2-3 file as an Excel file type, 1-2-3 preserves as much of the original data as possible. If the file that you're opening or saving contains any untranslatable information or links to other files, 1-2-3 records the information in a log file. You can view the log file at any time using a word processing program such as Word Pro.

For example, if you open DATA.XLS in 1-2-3 and the file contains a function that has no equivalent in 1-2-3, 1-2-3 creates a log file called DATA.LOG that contains information about the untranslated function. 1-2-3 saves the log file in the same folder as DATA.XLS.

If you open a file that resides in a write-protected directory and has an untranslatable formula, 1-2-3 tries to save the log file in either the 1-2-3 default directory or the system TEMP directory. If either folder is full or write-protected, 1-2-3 stops the translation.

If the folder where 1-2-3 puts the log file already contains a log file with the same name, the new log file replaces the previous one.

Similarly, if you save a 1-2-3 file as an Excel file type, and the file contains @functions that have no equivalents in Excel, or untranslated links to other 1-2-3 files, 1-2-3 creates a log file and saves it in the default workbook files location. The log file has the same name as the 1-2-3 file, with a .LOG extension.

You must edit untranslated Excel functions and formulas to use them in 1-2-3. Likewise, you must edit untranslated 1-2-3 @functions to use them in Excel.

{button ,AL('H_TRANSLATING_EXCEL_FILES_OVER;H_VIEWING_THE_EXCEL_LOG_FILE_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;H_VIEWING_THE_EXCEL_LOG_FILE_STEPS','0)} [See related topics](#)

Using the Microsoft Excel Menu Finder

The Microsoft Excel Menu Finder is a modeless window that always stays on top, like the Help window, which means it can stay open while you read the equivalent command and perform the instructions in 1-2-3.

You can also move the Microsoft Excel Menu Finder around on your desktop so it is out of the way. The Microsoft Excel Menu Finder minimizes when most dialog boxes are displayed, and you can maximize it by clicking the Microsoft Excel Menu Finder button on the taskbar at the bottom of your screen.

The menus and menu items in the Excel Menu Finder reflect the current context. For example, if you select a chart in 1-2-3, you will see the Chart menu instead of the Data menu when you display the Microsoft Excel Menu Finder.

For some Excel commands there is not a corresponding object in 1-2-3, so the Microsoft Excel Menu Finder displays the text: "There is no equivalent." The Microsoft Excel objects that are not available in 1-2-3 include cell comments, WordArt objects, Organizational chart objects, and pivot tables.

To display equivalent commands

1. Choose the Microsoft Excel menu and menu item.

The menu finder displays the equivalent command in Lotus 1-2-3.

2. Follow the instructions.

```
{button ,AL('H_123_EXCEL_FUNC_EQUIV_REF;H_CREATING_AND_OPENING_FILES_OVER;H_WORKING_WIT  
H_EXCEL_FILES_OVER',0)} See related topics
```

Viewing the Excel log file

When you open an Excel file in 1-2-3, or save a 1-2-3 file in Excel format, 1-2-3 displays a message in a dialog box and records any information it could not translate in a separate log file.

When opening Excel files in 1-2-3

To view the log file, click Explain.

To view the translated Excel file, click OK.

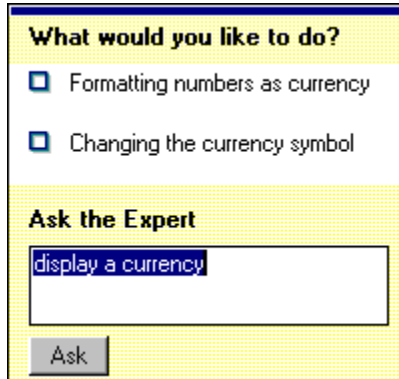
When saving 1-2-3 files in Excel format

To view the log file, click Explain.

{button ,AL('H_THE_EXCEL_LOG_FILE_OVER;H_TRANSLATING_EXCEL_FILES_OVER;H_WORKING_WITH_EXCEL_FILES_OVER;','0')} [See related topics](#)

Inside the Expert

The Expert answers your questions about how to perform different tasks in 1-2-3. When you use the Expert, you can describe what you want to do in your own words, without worrying about using the right terminology.



What would you like to do?

☐ Formatting numbers as currency

☐ Changing the currency symbol

Ask the Expert

display a currency

Ask

How does the Expert work?

The Expert understands many terms and synonyms, so you can phrase the same question in different ways and the Expert will know what you're looking for. When you ask a question, the Expert:

- Identifies the Help topics associated with the task you want to accomplish.
- Lists possible answers in order of relevance.

After you select the answer you want, the Help window displays the steps needed to complete the task.

The Expert can help you find topics that explain how to perform various tasks in 1-2-3. To look up other types of Help, such as reference information on @functions or LotusScript, or general overviews, use either the Help Contents or Index.

{button ,AL('H_123_USING_EXPERT_STEPS;H_LEARN123_OVER;H_LEARN123_HELP_OVER',0)} See related topics

Sending the Expert log file to Lotus

The Expert records the questions you ask in one or more log files. By sending these files to Lotus, you can help us continue improving the Expert.

1. When you see the Expert Log dialog box, do one of the following (without closing the dialog box or 1-2-3):
 - Open your electronic mail application, and then continue to step 2.
 - If you don't have access to e-mail, copy the log files from the specified directory to a floppy disk and send the disk to: 1-2-3 User Assistance, Lotus Development Corp., 1 Rogers Street, Cambridge, MA 02142. Then skip to step 7.
2. Create a mail message.
3. In the "To" box, type **expert@lotus.com**
4. In the "Subject" box, type **1-2-3 expert feedback**
5. Locate the log files in the specified directory and then attach them to the mail message.
6. Send the message.
7. In the Expert Log dialog box, select "Files have been sent."
8. (Optional) To delete all log files and turn off recording, select "Quit logging my questions and don't show this message again."
9. Click OK.

{button ,AL('H_123_USING_EXPERT_STEPS;H_123_ASK_THE_EXPERT_OVER',0)} [See related topics](#)

Using the Expert to get help

You can ask the Expert a question in your own words to find out how to perform a task.

1. From the Help menu, choose Ask the Expert, or click the Expert button in the status bar.



The Expert displays a list of tasks that varies, depending on what you have selected in the sheet.

2. If you don't see the task you want, type a question in the "Ask the Expert" box.
3. Click Ask.
The Expert replaces the list above the question box with the Help topics that answer your question.
4. If there are more than six answers, click More or Back to view the rest of the list.
5. Click the Help topic that you want to see.
6. (Optional) To redisplay the list of answers that the Expert found, click the Expert button in the status bar.

Tip A check mark beside a topic lets you know you've already seen that topic.

7. (Optional) To ask a different question, click in the question box and then type the question.

{button ,AL('H_123_USING_EXPERT_DETAILS',1)} [See details](#)

{button ,AL('H_123_ASK_THE_EXPERT_OVER',0)} [See related topics](#)

Details: Using the Expert to get help

Help for the task at hand

The Expert is context-sensitive. That means that the Expert checks to see what you have selected in the sheet and then displays a list of tasks that might relate to what you're doing. For example, if you select a range, the Expert lists Help topics related to working in the sheet. If you select a chart, the Expert lists topics that explain how to work with charts.

Suggestions for asking questions

When you ask the Expert questions, follow these guidelines:

- Ask task-oriented questions.

Tip You don't need to include "How do I" when you enter a question.

- Make your questions direct and concise. The clearer the question, the easier it is for the Expert to find the answer.

Type a few words (instead of just one word) to tell the Expert what you want to do. This makes it easier for the Expert to narrow down the list of possible answers.

- Enter only necessary information. Extra information can cause the Expert to find the wrong answer or no answer.
- Ask only one question at a time.
- Check your spelling before asking a question.
- If the Expert can't find an answer, rephrase your question or ask about a related task.

For example, to find out how to set page breaks in a workbook, just type "set page break" and then click Ask. The Expert lists the appropriate Help topic and you can continue working.

Keeping the Expert open

You can keep the Expert open while you work in 1-2-3. Just drag the Expert window by its top edge to a new location, and then release the mouse button. To close the Expert, click Done.

{button ,AL('H_123_USING_EXPERT_STEPS',1)} [Go to procedure](#)

Choosing the type of Help you want

When you choose Help Topics from the Help menu, you can specify how you want to access Help.

When to use the Expert

The Expert gives you a quick and easy way to get task-oriented Help by asking questions using your own words. Just tell the Expert what you want to do and then select the topic you want from a list of possible answers.

When to use Help Topics

If you want to access both task-oriented and reference Help, or see the overall Help structure at a glance, or if you just can't think of how to word a question, you can explore Help by browsing the Contents and Index.

Tip If you want 1-2-3 to display the regular Help window whenever you choose Help - Help Topics, select "Don't show this message again."

{button ,AL('H_123_USING_EXPERT_STEPS;H_123_ASK_THE_EXPERT_OVER;H_LEARN123_HELP_OVER',0)}
[See related topics](#)

Overview: Filling ranges

1-2-3 automatically fills a range of cells with numbers, dates, times, or text.

Filling a range with values

You can automatically fill a range with a sequence of numbers, dates, or times by choosing Range - Fill and specifying the first value in the sequence, the last value, and the interval between each value. For example, you can fill a range with numbers between 0 and 100, counting by tens (0, 10, 20, 30,...90, 100).

Filling by example

Get a head start on filling a range by entering a value in the top left cell of the range. For example, if you're filling a range with dates, enter the first date in the top left cell of the range. 1-2-3 uses the date as a start value for the sequence, and fills the range with the date format you used. If you enter a sequence of values in the first two cells of a range, 1-2-3 can also determine the increment.

Filling a range with text

To fill a range with text, 1-2-3 must recognize the text sequence. 1-2-3 uses SmartFill lists to store lists of data. Some SmartFill lists, such as months of the year and days of the week, are included with 1-2-3.

SmartFill

You can use drag and fill to fill numbers and text. Automatic SmartFill suggests an entry as you start to type, based on what you type and the data surrounding the cell. For example:

The SmartFill list is Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, Sunday. You type "Monday" in a cell, then move to a cell immediately to the right or below. As soon as you type "T", 1-2-3 fills "uesday" into the cell.

If you type "T" into a cell immediately to the right or below a cell that contains the word Wednesday, 1-2-3 fills in "hursday" according to the order of words in the SmartFill list.

Creating SmartFill lists

You can create your own SmartFill lists so that 1-2-3 recognizes them as well. For example, you can create a SmartFill list that includes all the cities where your organization has offices. You can then automatically fill a range with your custom SmartFill list.

If you create a custom SmartFill list, you can select "Fill using same capitalization as list" in the SmartFill Setup dialog box.

Formatting SmartFill ranges

When you use SmartFill, 1-2-3 applies the styles from the example cell after you press ENTER. For example, if you type Monday in the first cell, press ENTER, and move to the next cell, type "T," and then press ENTER, you see Tuesday is formatted the same way Monday was formatted.

Accepting or rejecting SmartFill suggestions

You can accept a SmartFill suggestion by pressing ENTER or clicking outside of the cell. You can reject a SmartFill suggestion by continuing to type what you want, by pressing ESC, or by pressing DEL to delete the highlighted portion of the cell contents.

If 1-2-3 cannot find a match for the characters you type, the cell contents are replaced with the next character(s) you type.

Turning off SmartFill

You can turn off the automatic suggestions that SmartFill provides by choosing File - User Setup - 1-2-3 Preferences and deselecting "Use SmartFill during data entry."

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_DATES_STEPS;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_FILLING_A_RANGE_WITH_TIMES_STEPS',0)} [See related topics](#)

Fill dialog box

Use this dialog box to choose fill options for the selected range.

Choose a task

[Filling a range with numbers](#)

[Filling a range with text](#)

[Filling a range with dates](#)

[Filling a range with times](#)

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_Filling_Ranges_OVER;H_FILLING_A_RANGE_USIN
G_DRAGANDFILL_STEPS','0)} [See related topics](#)

Filling a range with numbers

You can fill a range with a sequence of numbers.

1. Select the range to fill.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns, rows, and sheets.

2. Choose Range - Fill.
3. In the "Fill using" list, select "Numbers."
4. Enter the start value, the increment, and the stop value.
5. Click OK.

{button ,AL('H_FILLING_A_RANGE_WITH_NUMBERS_DETAILS',1)} See details

{button ,AL('H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_DATES_STEP
S;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_FILLING_
A_RANGE_WITH_TIMES_STEPS;H_FILLING_RANGES_OVER;',0)} See related topics

Details: Filling a range with numbers

Entering the first number in the sequence

You can enter integers, for example 43, 67, 2, or numbers with decimal amounts, for example 2.5, 34.75, 33.2.

Entering an increment

The increment is the amount between the numbers in the sequence. The default is 1. You can enter integers or numbers with decimal amounts.

Entering the last number in the sequence

You can enter integers or numbers with decimal amounts. If you don't enter a stop value, 1-2-3 fills the entire range with the sequence of numbers up to the default stop value of 32767. If you enter a negative increment value, you must specify a stop value that is less than the start value.

Filling a range by example

If the top left cell of the fill range contains a number, 1-2-3 enters the number as the start value if you select "Fill by example" in the "Fill using" list. If the first two cells of the range contain numbers in a sequence, 1-2-3 determines the increment value from the sequence. 1-2-3 also copies the number format and any other styles from the example cells into the fill range.

Entering a formula or cell reference

For the start, stop, and increment values, you can enter either a formula or the name or address of a cell containing the value you want to use.

How 1-2-3 fills the range

1-2-3 fills the cells in the range from top to bottom in a column and from left to right. If you specify a multiple-sheet fill range, 1-2-3 fills the range in the first sheet, continues the sequence on the second sheet, and so on until 1-2-3 reaches the stop value or the end of the range.

{button ,AL('H_FILLING_A_RANGE_WITH_NUMBERS_STEPS',1)} [Go to procedure](#)

Filling a range with text

You can fill a range with a sequence of text, called a SmartFill list.

1. Enter the first item from the SmartFill list in the top left cell of the range.

2. Select the range to fill.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns, rows, and sheets.

3. Choose Range - Fill.

4. In the "Fill using" list, select "Fill by example."

5. Click OK.

{button ,AL('H_FILLING_A_RANGE_WITH_TEXT_DETAILS',1)} See details

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS
;H_FILLING_A_RANGE_WITH_DATES_STEPS;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_
A_RANGE_WITH_TEXT_STEPS;H_FILLING_A_RANGE_WITH_TIMES_STEPS;H_FILLING_RANGES_OVER;',
0)} See related topics

Details: Filling a range with text

1-2-3 uses SmartFill lists to store lists of text you can use to fill ranges.

SmartFill lists that 1-2-3 recognizes

1-2-3 recognizes common sequences of data, including:

- Days of the week
- Directions (North, South, East, West)
- Months of the year
- Letters of the alphabet
- Quarters of the year (Q1, Q2, Q3, Q4)

In addition, 1-2-3 will recognize as a sequence any text you enter that begins or ends with a number. For example, if you enter Store 1 in a cell, 1-2-3 will fill the range with Store 2, Store 3, and so on.

1-2-3 also recognizes custom SmartFill lists you create using File - User Setup - SmartFill Setup.

{button ,AL('H_FILLING_A_RANGE_WITH_TEXT_STEPS',1)} Go to procedure

{button ,AL('H_CREATING_A_CUSTOM_FILL_LIST_STEPS',0)} See related topics

Filling a range with dates

You can fill a range with a sequence of dates.



[Show me a QuickDemo](#)

1. [Select](#) the range to fill.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns, rows, and sheets.

2. Choose Range - Fill.
3. In the "Fill using" list, select "Dates."
4. Select an Interval.
5. Enter the start date and the increment.
6. (Optional) Enter the stop date.
7. Click OK.

{button ,AL('H_FILLING_A_RANGE_WITH_DATES_DETAILS',1)} [See details](#)

{button ,AL('H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_DATES_STEP
S;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_FILLING_
A_RANGE_WITH_TIMES_STEPS;H_FILLING_RANGES_OVER;',0)} [See related topics](#)

Details: Filling a range with dates

Entering the start date

If you are filling a blank range, you must enter the start date. You can enter the start date in the following formats:

- 17-Jul-96
- 17-Jul or 7/17

If you enter the date in one of these formats, 1-2-3 assumes the current year and stores the date as 17-Jul-96.

- Jul-96

Use the format Jul-96 only for intervals of Quarter, Month, or Year. 1-2-3 stores the date using the first day of the month.

- 07/17/96

The start date can be any date from January 1, 1900 through December 31, 9999.

Note 1-2-3 uses the defaults set with File - User Setup - 1-2-3 Preferences (General tab) to determine how to store and display dates. For more information, see [Setting options for dates](#).

Filling by example

If the top left cell in the range contains a date, 1-2-3 enters that date as the start date if you select "Fill by example" in the "Fill using" list. If the first two cells of the range contain dates in a sequence, 1-2-3 determines the increment value from the sequence. 1-2-3 also copies the date format and any other styles from the example cells into the fill range.

Entering the interval and increment

The interval specifies the type of date you want; the increment is the amount between the dates in the sequence. For example, to fill a range with dates two weeks apart, select week as the interval and enter 2 as the increment.

Entering a formula or cell reference

For the start, stop, and increment values, you can enter either a formula or the name or address of a cell containing the value you want to use.

How 1-2-3 fills the range

1-2-3 fills the cells in the range from top to bottom in a column and from left to right. If you specify a multiple-sheet fill range, 1-2-3 fills the range in the first sheet, continues the sequence on the second sheet, and so on until 1-2-3 reaches the stop value or the end of the range.

{button ,AL('H_FILLING_A_RANGE_WITH_DATES_STEPS',1)} [Go to procedure](#)

Filling a range with times

You can fill a range with a sequence of times.

1. Select the range to fill.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns, rows, and sheets.

2. Choose Range - Fill.
3. In the "Fill using" list, select "Times."
4. Select an interval.
5. Enter the start time and the increment.
6. (Optional) Enter the stop time.
7. Click OK.

{button ,AL('H_FILLING_A_RANGE_WITH_TIMES_DETAILS',1)} See details

{button ,AL('H_FILLING_RANGES_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_DATES_STEPS;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_FILLING_A_RANGE_WITH_TIMES_STEPS',0)} See related topics

Details: Filling a range with times

Entering the start time

If you are filling a blank range, you must enter the first time in the sequence. You can enter the start time in the following formats:

- 10:45:34 PM
- 10:45 PM
- 22:45:34
- 22:45

The start time can be any time from 00:00:00 to 23:59:59. By default, 1-2-3 displays times in the fill range in the format 23:59.

Filling by example

If the top left cell in the range contains a time, 1-2-3 enters that time as the start time if you select "Fill by example" in the "Fill using" list. If the range contains times in a sequence, 1-2-3 determines the increment value from the sequence. 1-2-3 also copies the Time format and any other styles from the example cells into the fill range.

Including the last time in the sequence

To be sure the last time you want appears in the fill range, specify a stop value greater than the last time you want to include in the fill range, by an amount equal to the increment value.

Entering the interval and increment

The interval specifies the type of time unit you want; the increment is the amount between the times in the sequence. For example, to fill a range with times two minutes apart, select minute as the interval and enter 2 as the increment.

Entering a formula or cell reference

For the start, stop, and increment values, you can enter either a formula or the name or address of a cell containing the value you want to use.

How 1-2-3 fills the range

1-2-3 fills the cells in the range from top to bottom in a column and from left to right. If you specify a multiple-sheet fill range, 1-2-3 fills the range in the first sheet, continues the sequence on the second sheet, and so on until 1-2-3 reaches the stop value or the end of the range.

{button ,AL('H_FILLING_A_RANGE_WITH_TIMES_STEPS',1)} [Go to procedure](#)

Overview: Creating custom SmartFill lists

Automatic SmartFill suggests an entry as you start to type, based on what you type and the data surrounding the cell. You can create custom SmartFill lists to speed up data entry and make it easier to enter data that you use repeatedly. You can use your SmartFill lists in any workbook.

Creating your own SmartFill lists

You can use SmartFill lists to fill ranges and to name a series of sheets. SmartFill lists can contain up to 100 items.

For example, suppose you frequently enter the following list of cities in your sheets:

New York
Los Angeles
London
Brussels
Tokyo
Seoul
Singapore

You can create a SmartFill list so that when any city in the list is in the first cell of the range to fill, 1-2-3 automatically enters the other cities, in the order they appear in the list. For example, if New York is in the first cell of the range, 1-2-3 enters Los Angeles, London, and so on.

A \				
A	A	B	C	D
1	New York	Los Angeles	London	Brussels
2				
3				

If Seoul is in the first cell in the range, 1-2-3 enters Singapore, New York, Los Angeles, and so on. In the same way, you can use this SmartFill list to enter a series of sheet names.

```
{button ,AL('H_CREATING_A_CUSTOM_FILL_LIST_STEPS;H_FILLING_RANGES_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_MODIFYING_A_CUSTOM_FILL_LIST_STEPS',0)} See related topics
```

Creating a custom SmartFill list

You can create a custom SmartFill list containing data you enter repeatedly.

1. From the File menu, choose User Setup, and then choose SmartFill Setup.



2. Click New List.
3. Type a name for the new list and click OK.
4. Click Add Items.
5. (Optional) To add items to the new list by retrieving the values from a range, use the [range selector](#) to specify the range, and then click Get Items from Range.
6. Type an item in the box and press ENTER.
7. Repeat step 6 for each item you want to add to the list.
8. Click OK to return to the SmartFill Setup dialog box.
9. (Optional) Select "Fill using same capitalization as list."
10. Click Done.

{button ,AL('H_CREATING_A_CUSTOM_FILL_LIST_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_FILLING_RANGES_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_MODIFYING_A_CUSTOM_FILL_LIST_STEPS',0)} [See related topics](#)

Details: Creating a custom SmartFill list

Naming the SmartFill list

Each SmartFill list is identified by a unique name. If you have more than one SmartFill list with similar data, name each list with a unique name so that you can identify it. For example, if one list contains European cities, you might name it CITYEUR, while you name the list of cities in the United States CITYUS. SmartFill list names can contain up to 64 characters.

Entering items in a SmartFill list

Each item in a SmartFill list can contain up to 64 characters. Items can contain spaces, letters, and numbers. An item from a SmartFill list is always entered in your sheet as a label.

If you use Get Items from Range to add items, 1-2-3 adds labels from the range, but not values. If there are already items in the list, the items retrieved from the range are added to the bottom of the list.

Capitalization in the SmartFill list

If you want 1-2-3 to use the exact combination of uppercase and lowercase letters you enter in the SmartFill list, select "Fill using same capitalization as list." Otherwise, 1-2-3 will use the capitalization from the data you enter in the range.

{button ,AL('H_CREATING_A_CUSTOM_FILL_LIST_STEPS',1)} [Go to procedure](#)

Adding items to a SmartFill list

Use the Add Items dialog box to enter one or more items for a SmartFill List.

Adding items to a list

Type each item in the box on its own line. Press ENTER to add a new line. You can add up to 100 items for each list.

Get Items from Range

Click to use data from a range for SmartFill items. 1-2-3 fills the items in the box, separated by line spaces. If there are already items in the list, the items retrieved from the range are added to the bottom of the list. This button is not available if there are no workbooks open.

If you use Get Items from Range to add items, 1-2-3 adds labels from the range, but not values.

Note Items are truncated at 64 characters.

You can edit the items in the list after you retrieve them from the range.

Range

Click the range selector and select the cell or range you want to include in the list. The "Range" box is not available if no workbooks are open.

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_Filling_Ranges_OVER',0)} [See related topics](#)

Modifying a custom SmartFill list

You can add, delete, or rearrange the items in a custom SmartFill list.

1. From the File menu, choose User Setup, and then choose SmartFill Setup.



2. From the "List name" box, select the list you want to change.
3. To add an item to the list, click Add Items, enter the new item(s), then click OK.
4. To remove an item from the list, highlight the item and click Delete Item.
5. To change the order of the items, drag an item to a different part of the list.
6. To delete the list, click Delete List.
7. Click Done.

{button ,AL('H_MODIFYING_A_CUSTOM_FILL_LIST_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_CREATING_A_CUSTOM_FILL_LIST_STEPS;H_FILLING_RANGES_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_T
EXT_STEPS;H_MODIFYING_A_CUSTOM_FILL_LIST_STEPS',0)} [See related topics](#)

Details: Modifying a custom SmartFill list

To edit an item in a SmartFill list, you must delete the original item and add a new item.

You can also rearrange items in the list by selecting an item and clicking the arrow buttons.

{button ,AL('H_MODIFYING_A_CUSTOM_FILL_LIST_STEPS',1)} [Go to procedure](#)

Filling a range by dragging

You can use the mouse to fill a range with a sequence of data. 1-2-3 fills the range based on the data already entered in the range.



[Show me a QuickDemo](#)

1. Select the cell or range containing the data you want to base the sequence on.
2. Position the mouse pointer at the bottom right corner of the cell or range until the pointer displays four arrowheads.



3. Drag to select the range to fill.
4. Release the mouse button.

{button ,AL('H_FILLING_A_RANGE_USING_DRAGANDFILL_DETAILS',1)} [See details](#)

{button ,AL('H_FILLING_RANGES_OVER;H_CREATING_CUSTOM_FILL_LISTS_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_FILLING_A_RANGE_WITH_DATES_STEPS;H_FILLING_A_RANGE_WITH_NUMBERS_STEPS;H_FILLING_A_RANGE_WITH_TEXT_STEPS;H_FILLING_A_RANGE_WITH_TIMES_STEPS',0)} [See related topics](#)

Details: Filling a range by dragging

How 1-2-3 determines how to fill the range

You must enter the data you want 1-2-3 to use as the basis for filling the range in the top left corner of the range. You can enter numbers, dates, and times, or text that is part of a SmartFill list.

When you select the cell or range, 1-2-3 examines the data in the range to determine how to fill the range. For example, you can select a cell that contains the word January, and then drag to fill a range with February, March, April, and so on.

If you want 1-2-3 to recognize a sequence, enter data in the first two cells of the range. For example, if you enter January and March, 1-2-3 will fill the range with every other month - January, March, May, July, and so on.

Dragging based on your selection

If you select one cell, then drag, you can drag both down and right. If you select a range of more than one cell, you can drag in only one direction.

Filling a 3D range

To fill a 3D range, use Range - Fill. You can't use drag and fill on a 3D range.

Troubleshooting

If 1-2-3 doesn't recognize a relationship between the data in the first two cells of the range (for example, Monday, February) it fills a range by copying data from the first two cells.

{button ,AL('H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS',1)} [Go to procedure](#)

SmartFill Setup dialog box

Use this dialog box to name, add, modify, and view the entries in current SmartFill lists, and to control the capitalization and order of the entries.

Choose a task

[Creating a custom SmartFill list](#)

[Modifying a custom SmartFill list](#)

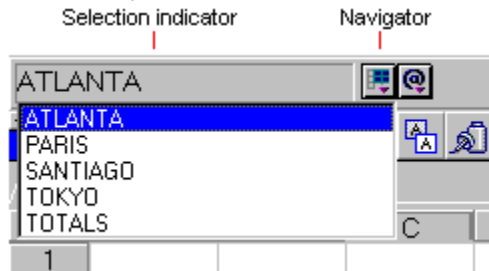
{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_Filling_Ranges_OVER',0)} [See related topics](#)

Overview: Finding data

1-2-3 gives you several ways to locate data in a 1-2-3 workbook.

Using the selection indicator and the navigator

The selection indicator displays your current selection. It displays the address or name of a range and the name of other types of objects. For example, if you select an unnamed range, the range address appears in the selection indicator; if you select a chart, the chart name appears.



Click the navigator to see the list of range names in the current workbook. You can use the navigator to:

- Go to and select a named range (when 1-2-3 is in Ready mode)
- Insert a range name into a formula or @function

Going to and selecting ranges and graphic objects

Using Edit - Go To, you can find and select ranges and other objects in the current workbook or in other active workbooks. See [Finding ranges and graphic objects](#).

Tip Edit - Go To is a quick way to select data or an object in another sheet or to navigate to a part of the sheet that is not visible.

Finding and replacing sheet entries

Use Edit - Find & Replace to find or replace labels or values in the sheet. 1-2-3 can search the selected range, current sheet, current workbook, or all active workbooks. Objects such as text blocks and maps are included in the search, but 1-2-3 will not search in hidden sheets, rows, or columns.

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_FINDING_TEXT_OR_NUMBERS_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS',0)} [See related topics](#)

Finding text or numbers

1-2-3 can search the selected range, current sheet, current workbook, or all active workbooks to find labels and values. 1-2-3 looks in cells, ranges, maps, and text blocks.

1. From the Edit menu, choose Find & Replace.



2. Enter the characters you want to find in the "Find" box.
For numbers, don't include formatting. For example, enter 67, not 67%.
3. (Optional) In the "Look in," "Include," and "Match" boxes, specify where to look and what to include.
4. Click Find.
1-2-3 highlights the first occurrence of the characters.
5. (Optional) To go to the next occurrence, click Find again.
6. Click Done.

{button ,AL('H_FINDING_TEXT_OR_NUMBERS_DETAILS',1)} [See details](#)

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;H_FINDING_DATA_OVER;',0)} [See related topics](#)

Details: Finding text or numbers

You can enter up to 512 characters to search for. 1-2-3 doesn't look in hidden rows, columns or sheets.

Looking in a selected range

If you choose "Selected range" from the "Look in" list, the "Range" box appears so you can specify a range. Type the
Range selector button



name or address of the range, or click the range selector and select the range.

You can also select the range before you choose Edit - Find & Replace.

Options for "Match"

- Case -- Looks for characters using the exact combination of uppercase and lowercase letters you enter in the "Find" box.
- Accent -- Looks for accented characters. Select this option if you don't want 1-2-3 to find é, è, and ë when you search for e. If you don't select this option, 1-2-3 ignores accents.

Options for "Include"

- Labels -- Searches for characters entered as text.
- Numbers -- Searches for numbers; does not include formula results.
- Formulas -- Searches the characters in formulas.

Redefining a search

At any time, you can click Redefine to change the search characters and start again.

Related SmartIcons

Goes to and selects a range or graphic object

{button ,AL('H_FINDING_TEXT_OR_NUMBERS_STEPS',1)} [Go to procedure](#)

Finding ranges and graphic objects

You can find and select the following things in a 1-2-3 workbook: a chart, a datalink table, a drawn object, a map, a Notes/FX field, an OLE object, a query table, a range, a sheet, a versioned range, and a Web table.

1. From the Edit menu, choose Go To.



2. Select the type of object you want to go to.
3. (Optional) To look in another active workbook, select the workbook from the "In workbook" list.
4. Select the range, sheet, or graphic object you want from the "Names" list.
5. Click OK.

1-2-3 goes to and selects the range or object you chose.

{button ,AL('H_FINDING_RANGES_AND_OTHER_OBJECTS_DETAILS',1)} [See details](#)

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_STEPS;H_FINDING_TEXT_OR_NUMBERS_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;H_FINDING_DATA_OVER',0)} [See related topics](#)

Details: Finding ranges and graphic objects

Looking in a different workbook

By default, 1-2-3 looks in the current workbook for the range or object you select. If you select a different workbook, 1-2-3 lists all of the ranges and objects in that workbook.

Specifying a range address

If you select a range as the type of object you want to go to, you can enter a range address in the box above the list.

{button ,AL('H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS',1)} Go to procedure

Finding and replacing text or numbers

1-2-3 can search the selected range, current sheet, current workbook, or all active workbooks to find and replace labels and values. 1-2-3 looks in cells, ranges, maps, and text blocks.

1. From the Edit menu, choose Find & Replace.



2. Enter the characters you want to find in the "Find" box.
3. Enter the new characters in the "Replace with" box.
4. (Optional) In the "Look in," "Include," and "Match" boxes, specify where to look and what to include.
5. Click Find.
1-2-3 highlights the first occurrence of the characters.
6. Click Replace.
1-2-3 replaces the characters and moves to the next occurrence.
7. (Optional) To replace the next occurrence of the characters, click Replace again.
8. Click Done.

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_DETAILS',1)} [See details](#)

{button ,AL('H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;H_FINDING_DATA_OVER;H_FINDING_TEXT_OR_NUMBERS_STEPS;',0)} [See related topics](#)

Details: Finding and replacing text or numbers

You can enter up to 512 characters to search for. 1-2-3 doesn't look in hidden rows, columns, or sheets.

Replacing selected occurrences of the search characters

You can view each occurrence of the characters individually and determine whether to replace them.

- Replace -- Replaces the highlighted characters and finds the next occurrence.
- Find -- Skips to the next occurrence without replacing.
- Replace All -- Replaces all remaining occurrences of the characters in the range, sheet, workbook, or all workbooks (according to what is selected in the "Look in" list).

Looking in a selected range

If you choose "Selected range" from the "Look in" list, the "Range" box appears so you can specify a range. Type the

Range selector button



name or address of the range, or click the range selector and select the range.

You can also select the range before you choose Edit - Find & Replace.

Options for "Match"

- Case -- Looks for characters using the exact combination of uppercase and lowercase letters you enter in the "Find" box.
- Accent -- Looks for accented characters. Select this option if you don't want 1-2-3 to find é, è, and ë when you search for e. If you don't select this option, 1-2-3 ignores accents.

Options for "Include"

- Labels -- Searches for characters entered as text.
- Numbers -- Searches for numbers; does not include formula results.
- Formulas -- Searches the characters in formulas.

Redefining a search

At any time, you can click Redefine to change the search characters and start again.

Related SmartIcons



Goes to and selects a range or graphic object

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_STEPS',1)} [Go to procedure](#)

Using the navigator to find named ranges

The navigator lists all named ranges in the current workbook.

1. Click the navigator.



2. Select the named range from the list.

1-2-3 goes to and selects the range, placing the cell pointer in the top left cell.

{button ,AL('H_FINDING_AND_REPLACING_TEXT_OR_NUMBERS_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_FINDING_TEXT_OR_NUMBERS_STEPS;H_FINDING_DATA_OVER;',0)} See related topics

Find and Replace dialog box

Use this dialog box to find or to find and replace text or numbers.

Choose a task

[Finding text or numbers](#)

[Finding and replacing text or numbers](#)

{button ,AL('H_FINDING_DATA_OVER','0')} [See related topics](#)

Details: Adding an item to the @function menu

Positioning @functions on the menu

When you click >> to add an @function, 1-2-3 adds the @function below the item selected in the "Current menu" list. If nothing is selected in the "Current menu" list, 1-2-3 adds the @function to the end of the list.

When you drag an @function to the "Current menu" list, the placement of the @function depends on the location of the mouse pointer when you release the mouse button:

- If the pointer is over the top half of an @function, 1-2-3 adds the new @function above that item.
- If the pointer is over the bottom half of an @function, 1-2-3 adds the new @function below that item.

Adding separators

You can add lines to the @function menu to separate and group @functions. To add a separator below an @function, select the @function in the "Current menu" list and then click Separator.

When the @function selector isn't available

If the edit line is hidden, you don't see the @function selector. To display the edit line and @function selector, choose View - Show Edit Line.

If no workbooks are open, the @function selector is grayed out.

{button ,AL('H_ADDING_AN_ATFUNCTION_STEPS',1)} [Go to procedure](#)

Adding an item to the @function menu

For easy access, you can add the @functions you use most often to the @function menu.

1. Click the @function selector.



2. Choose List All.
3. Click Menu >>.
4. (Optional) To narrow down the list of @functions, select a category from the "Category" list.
5. From the "@Functions" list, select the @function you want to add.
6. Click >>.

Tip You can also drag the @function into the "Current menu" list.

7. (Optional) To add other @functions, repeat steps 5 and 6.
8. Click OK.

{button ,AL('H_ADDING_AN_ATFUNCTION_DETAILS',1)} [See details](#)

{button ,AL('H_REMOVING_AN_ATFUNCTION_STEPS;H_FUNC_BASICS;H_ENTERING_AN_ATFUNCTION_STEPS;H_REARRANGING_ATFUNCTION_MENU_STEPS',0)} [See related topics](#)

Rearranging items on the @function menu

If you don't like the order of the items on the @function menu, you can rearrange them.

1. Click the @function selector.



2. Choose List All.
3. Click Menu >>.
4. Select the @function or separator you want to move in the "Current menu" list.
5. Drag the item to a new location in the "Current menu" list.
6. (Optional) To move other items, repeat steps 4 and 5.
7. Click OK.

{button ,AL('H_REARRANGING_ATFUNCTION_MENU_DETAILS',1)} [See details](#)

{button ,AL('H_ADDING_AN_ATFUNCTION_STEPS;H_REMOVING_AN_ATFUNCTION_STEPS;H_FUNC_BASICS',0)} [See related topics](#)

Details: Rearranging items on the @function menu

Positioning items on the menu

When you drag an @function or separator in the "Current menu" list, the placement of the item depends on the location of the mouse pointer when you release the mouse button:

- If the pointer is over the top half of an @function, 1-2-3 places the item above the @function.
- If the pointer is over the bottom half of an @function, 1-2-3 places the item below the @function.

{button ,AL('H_REARRANGING_ATFUNCTION_MENU_STEPS',1)} Go to procedure

Removing an item from the @function menu

If you remove an @function from the @function menu, you can still select the @function from the full list by clicking the @function selector.

1. Click the @function selector.



2. Choose List All.
3. Click Menu >>.
4. From the "Current menu" list, select the @function you want to remove.
5. Click <<.

Tip You can also drag the @function out of the "Current menu" list.

6. (Optional) To remove other @functions, repeat steps 4 and 5.
7. Click OK.

{button ,AL('H_REMOVING_AN_ATFUNCTION_DETAILS',1)} [See details](#)

{button ,AL('H_ADDING_AN_ATFUNCTION_STEPS;H_FUNC_BASICS;H_REARRANGING_ATFUNCTION_MENU_STEPS',0)} [See related topics](#)

Details: Removing an item from the @function menu

Removing separators

To remove a separator, select the separator in the "Current menu" list and then click <<.

You can also remove a separator by dragging. Simply move the mouse pointer to the separator and then drag it out of the "Current menu" list.

When the @function selector isn't available

If the edit line is hidden, you don't see the @function selector. To display the edit line and @function selector, choose View - Show Edit Line.

If no workbooks are open, the @function selector is grayed out.

{button ,AL('H_REMOVING_AN_ATFUNCTION_STEPS',1)} [Go to procedure](#)

1-2-3 database table

A range containing data organized in rows and columns. Each row contains one record, and each column (field) contains one kind of information. For example, in an employee database table that contains the fields Last_Name, First_Name, and so on, each record contains information about one employee.

A 1-2-3 database table must fit on a single sheet, and can contain up to 256 fields and 65,535 records.

absolute reference

In a formula, a reference to a cell that does not change when you copy the formula. An absolute reference always refers to the same cell or range.

To create an absolute cell reference, enter a \$ (dollar sign) before the sheet letter, column letter, and row number (\$A:\$A\$4) when you write the formula. To create an absolute range name, enter a \$ (dollar sign) before the range name (\$INTEREST).

For example, if you copy the formula $+\$A\$1*B10$ entered in cell C10 to C11 and C12, the formula changes to $+\$A\$1*B11$ and $+\$A\$1*B12$. The absolute reference ($\$A\1) does not change.

active area

The area bounded by cell A1 and the lowest and rightmost nonblank cell in the current sheet. Press END HOME to find this cell. The size of the active area affects the amount of memory a sheet requires.

active window

The window in which you are working. Only one window can be active at a time.

You can identify the active window by the presence of color in its title bar. Click the title bar to make a window active.

active workbook
An open workbook.

add-in

A special program, created by Lotus and other software developers, that you can use with 1-2-3 to extend its capabilities.

alignment

The position of data in a cell, range, or text block; for example, centered, right-aligned, and so on.

To control alignment, use the Alignment tab in the InfoBox:



You can also use the Alignment button in the status bar.

ANSI (American National Standards Institute)

A set of character codes used by the operating system. The ANSI character set contains 256 character codes. The first 128 ANSI characters (0-127) are the same as the ASCII (American Standard Code for Information Interchange) character set. The first 32 ANSI characters (0-31) are non-printing control characters, and display as substitute characters.

argument separator

A single character, such as a , (comma), ; (semicolon), or . (period), that separates one argument from another in an @function or macro command, and one range from another in some commands.

You can specify any character as the argument separator using your operating system's regional (country) settings.

argument

Text, value, location, or condition that you provide for an @function or macro command. For example, in the formula @SUM(A1..A10), the argument is A1..A10. In the macro {BRANCH TOTALS}, the argument is the range name TOTALS.

ASCII (American Standard Code for Information Interchange)

A standard set of character codes many computers and devices use to create text. LMBCS (Lotus Multibyte Character Set) and ANSI (American National Standards Institute) include the ASCII character set.

backslash macro

A macro name that consists of a \ (backslash) followed by a single letter; for example \d.

blank cell

A cell that contains no letters, numbers, spaces, or label-prefix character.

branch

A transfer of macro control to another macro routine. Unlike subroutine calls, branches do not return control to the original macro.

byte pointer

A place marker that moves by bytes in a text file and indicates the current position. 1-2-3 uses the byte pointer in some of the file-manipulation macro commands.

cell address

The location of a cell, identified by the sheet letter, column letter, and row number; for example, A:A2.

A:A2			
A			
A	A	B	
1			
2			
3			

cell comment marker

Shows that a cell contains a cell comment by displaying a marker in the top left corner.

Cell comment marker		Totals
		450
		340
Formula marker		790

cell pointer

The rectangular outline in the sheet that marks the current cell. If a multi-cell range is selected, the current cell appears in reverse color.

A:A2			
A			
1	A	B	
2			
3			

cell

The basic unit of a 1-2-3 sheet. The intersection of a column and a row forms a cell. You enter and store data in a cell.

A:A2			
A			
1	A	B	
2			
3			

circular reference

A formula that refers to itself, either directly or indirectly. For example, a circular reference occurs if you enter the formula `=B1+1` in cell B1.

When a formula contains a circular reference, 1-2-3 displays the Circular reference button in the status bar. To locate the circular reference, click the button; 1-2-3 moves the cell pointer to the first cell containing a circular reference.



Clipboard format

One of a number of standard formats used for the exchange of data between applications via the Clipboard.

1-2-3 can read and write these Clipboard formats except where noted:

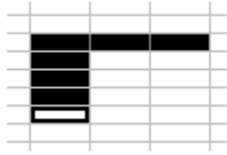
- Bitmap
- Device Independent Bitmap
- Lotus Chart
- Lotus 1-2-3 9 Workbook (write only)
- Picture
- Rich Text Format (write only)
- Text
- WK1
- WK3

Note 1-2-3 supports DDE using the Text, WK1, and WK3 Clipboard formats.

Clipboard

A storage area the operating system uses to temporarily store data when you use Edit - Cut or Edit - Copy. Use Edit - Paste, Edit - Paste Special, and Edit - Paste Link to paste the Clipboard contents into 1-2-3 or another application.

collection



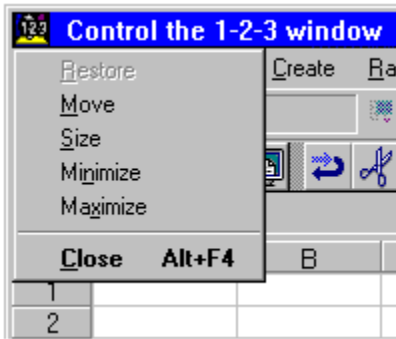
Two or more ranges, selected at the same time, so that your next action affects all the ranges in the collection at once. A collection can include ranges in different sheets of the same file.

The address of a collection consists of the addresses of all of the ranges in the collection separated by semicolons. A collection can also contain two or more objects of the same type, such as charts or other graphic objects. A collection cannot contain objects of different types. For example, a collection cannot contain both ranges and charts.

Comma format

Displays numbers with thousands separators and up to 15 decimal places. Comma format is the same as Currency format without the currency symbol.

Control menu



Displays commands for manipulating windows and the InfoBox.
To open the control menu, click the icon in the left corner of the title bar.

criteria

The conditions that you want records to meet when querying a database table. For example, to select all sales greater than \$25,000, specify the criterion as SALES>25000.

When working with a query table that is an Approach embedded object, you set criteria by using the Approach Find Assistant with 1-2-3. After you create a query table, you can select the type of find (query) you want to perform and specify the find conditions (criteria).

When working with a DQA query table created with the Data Query Add-In, you set criteria to select records when you create the query table. You can also use Query - Set Criteria to change the criteria after you create the query table.

You also specify criteria when working with @functions, LotusScript, and macros.

Currency format

Displays numbers with a currency symbol, thousands separators, and up to 15 decimal places; for example, \$21,330.40. You can format different cells in the same workbook as different types of currency. For example, you can format one cell as US dollar and another as French franc.

To format cells as currency, use the Number Format tab in the InfoBox:



current cell

The cell in the sheet that contains the cell pointer. The next selection, entry, or edit affects the current cell. The address of the current cell appears in the selection indicator in the edit line.

A:A2			
A			
1	A	B	
2			
3			

current directory

The directory that 1-2-3 automatically uses during a session to save, open, or list files.

The current directory is initially set to the default directory specified with File - User Setup - 1-2-3 Preferences (File Locations tab). If you specify a different directory during a 1-2-3 session with the File - Open or File - Save As commands, it takes precedence over the default directory during that session.

current selection

The highlighted cell, range, collection, or object that the next command will affect.

A:B2..A:C3				
A				
A	A	B	C	D
1				
2				
3				
4				

When you select a graphic object, a query table, a datalink table, or a Web table, handles -- the small boxes on the edges of the selection -- appear around it.



current workbook

The workbook that contains either the cell pointer or a selected object.

database

A file containing one or more database tables. A 1-2-3 database table is a range containing data organized in rows and columns. A 1-2-3 database table consists of records (rows of data) whose parts are identified by labeled fields (columns).

Date format

The way 1-2-3 displays a date number. To apply a date format to a number in a range or a chart, use the Number Format tab in the InfoBox.

You can also use the status bar to apply a date format to a range.



1-2-3 automatically formats data as a date if you enter it using a format 1-2-3 recognizes. 1-2-3 automatically formats dates entered as Dec-63, 04-Dec, 04-Dec-63, or 12/04/63, plus dates entered in any format you promote to the Frequently Used list.

date number

A number from 1 through 2,958,465 that 1-2-3 assigns in sequence to each date from January 1, 1900, through December 31, 9999. For example, the date number for July 21, 1991, is 33440.

Note In @functions that use dates for arguments, you should always specify a 4-digit year in the date to make sure you get the results you want -- for example, 12/31/2005. If you specify a 2-digit year, 1-2-3 uses the date setting in the 1-2-3 Preferences dialog box to determine whether the year refers to the 20th or the 21st century.

If you enter a value that looks like a date, for example, 12/31/96 or 31-Dec, 1-2-3 enters the date as you typed it in the cell; the corresponding date number is stored in the cell.

You can use date numbers in calculations.

default directory

The directory that 1-2-3 automatically uses for files when you start 1-2-3. Initially, 1-2-3 uses the directory specified in the Install program, but you can specify a different default directory with File - User Setup - 1-2-3 Preferences (File Locations tab).

default font

The font 1-2-3 uses for all data in a workbook, except for data in cells you explicitly style with another font. To change the default font, use File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab).

Initially, the fonts listed in the 1-2-3 Preferences dialog box depend on the fonts available on the default printer you specified through the operating system. If you select a different printer in 1-2-3, the fonts listed reflect the fonts available on the selected printer.

default setting

The initial settings 1-2-3 uses for viewing, printing, and working in workbooks. You can change certain default settings for entire sheets or workbooks using View - Set View Preferences, File - User Setup - 1-2-3 Preferences, or Sheet - Sheet Properties.

delimited text file

A file in ASCII format that contains rows of data with delimiters. A delimiter is a , (comma), space, : (colon), or ; (semicolon) entered between numbers and labels in each row. Each row must end with a carriage return.

All labels must be enclosed in quotation marks. For example, the following line is from a delimited text file:

"Stolper", "Boston", 1400, 1300, 2800

Use File - Open to bring data in a delimited text file into a 1-2-3 sheet. 1-2-3 separates the data into columns in the sheet according to the delimiters.

destination range

The range in a workbook that receives data from:

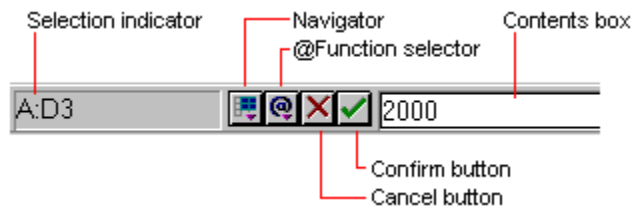
- Another range, when you use Edit - Paste or Edit - Paste Special.
- Another application, when you use Edit - Paste Link or Edit - Paste Special.

drag

To press the mouse button and hold it while moving the mouse.

edit line

The line below the menu in the 1-2-3 window.



Item	Function
Selection indicator	Shows the address or name of the current selection.
Navigator	Lets you go to and select a named range.
@Function selector	Lets you insert an @function in a cell.
Cancel and Confirm buttons	Cancel or confirm an entry. These buttons appear only when you enter or edit data in the contents box.
Contents box	Displays the entry you are typing or editing, or the contents of the current cell.

To hide the edit line, choose Hide Edit Line from the View menu. To redisplay the edit line, choose Show Edit Line from the View menu.

empty string

A cell that contains a label-prefix character but no text. The cell looks blank, but 1-2-3 will not return the value ERR when you use it as an argument in a text @function, with the exception of the @CHAR and @CODE functions.

ERR

A special value that either 1-2-3 generates to indicate an error in a formula or you generate with @ERR.

ERR can ripple through formulas: any formula that refers to a cell that contains ERR results in ERR, and any other formula that depends on that formula also results in ERR. When you correct the formula that contains ERR, the results of dependent formulas also become correct.

The label ERR is not equivalent to the value ERR.

extension

At the end of a file name, typically a . (period) followed by three characters. The characters allowed and the maximum length of the extension depends on the operating system you are using.

An extension usually indicates the file type. For example, a file with the extension .TXT is a text file. Sometimes, different file types use the same extension. For example, when you save a new workbook in 1-2-3 Release 9, 1-2-3 97, and 1-2-3 for OS/2 Warp 4, each file has the same extension (.123).

When you save a new 1-2-3 workbook file, 1-2-3 automatically adds the extension .123. You can override this extension by specifying a different extension when you save the workbook.

To change the default file type that 1-2-3 uses when you save a new file, use File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab).

external database table

A table in an external database that contains a group of related information. External databases are stored in files that are not 1-2-3 files, such as Notes, Oracle, SQL Server, Paradox, dBASE IV, Informix, ODBC, and text files.

field name

A label in the first row of a database or query table that identifies the contents of a field. For example, an employee database may contain the field names First Name, Last Name, and Employee Number.

In database @functions, the argument *field* can be one of the following:

- The field name enclosed in " " (quotation marks)
- An offset number that indicates the position of the field (column) in the database table
- The address of a cell that contains a field name in quotation marks, or an offset number

field

A labeled column in a database or query table that contains the same kind of information for each record. For example, an employee database table may contain fields labeled Name, Department, and Salary.



file reference

A file name and extension, with or without a path, enclosed in << >> (double angle brackets); for example, <<SALES.123>>@SUM(A10..B22). Use a file reference in formulas and commands to refer to data in a workbook other than the current workbook.

Fixed format

A number format that displays numbers with up to 15 decimal places, a minus sign for negatives, and a leading zero for decimal values.

flow of control

The direction in which control passes from one set of macro instructions to another during macro execution. Some macro commands that govern the flow of control are {BRANCH}, {DEFINE}, {FOR}, and {RETURN}.

format file

A file in which some releases of 1-2-3 store style information associated with a workbook.

Format file type	Release
.FM3	1-2-3 for Windows Releases 1 and 1.1 Wysiwyg in 1-2-3 for DOS Release 3.1 or later
.FMT	Impress in 1-2-3 for DOS Releases 2.3 and 2.4

formula marker

Shows that a cell contains a formula by displaying a marker in the bottom left corner.



General format

Displays numbers up to 15 decimal places, with a minus sign for negatives, no thousands separators, and no trailing zeros to the right of the decimal point.

graphic object

An item, such as a chart, arrow, or shape that you can select, move, size, and style independently of the cells behind it. Graphic objects include drawings created with the Create - Drawing commands, text blocks, buttons, charts and chart parts, maps and map parts, embedded objects, and pictures brought from another application into 1-2-3.

handle

One of the small boxes that appears on the edge of a selected graphic object, query table, datalink table, or Web table. Use handles to size the object.



if-then-else

In a macro, conditional processing that directs the flow of control according to whether a specified condition is true or false.

input cell

A cell in which 1-2-3 temporarily stores values while it performs calculations for creating a what-if table.

input range

In database @functions, the argument *input* is the range that contains the database table(s); *input* can be the address or name of a range that contains the database table(s), or the name of the external database table(s), but it cannot be a 3D range.

label-prefix character

The first character in a label entry. It defines the entry as a label and sets the alignment for the cell. 1-2-3 does not display the label-prefix character in the cell but does display it in the contents box when you select a cell that contains a label.

Type a label-prefix character to enter a label that begins with a number or one of these characters:

+ = - \ #
< \$ (/ @

Label-prefix character	Effect
' (apostrophe)	Left-aligns labels (default)
" (quotation mark)	Right-aligns labels
^ (caret)	Centers labels
\ (backslash)	Repeats one or more characters across a cell

Use the Alignment tab in the InfoBox to change alignment.

Label format

Displays new entries as labels by automatically adding a label-prefix character that corresponds to the default alignment set with Sheet - Sheet Properties. Displays existing numbers with no thousands separators and a minus sign for negatives.

label

Any cell entry that begins with a letter or label-prefix character.

When you complete a cell entry that starts with a letter, 1-2-3 automatically inserts the default label-prefix character (an apostrophe) at the beginning of the entry. 1-2-3 does not display the label-prefix character in the cell, but does display it in the contents box when you select a cell that contains a label.

LICS (Lotus International Character Set)

The 256 codes (0 through 255) that Symphony®, 1-2-3 for DOS Release 2, and 1-2-3 for OS/2 Release 2 use to display, store, and print characters. LICS codes 32 through 127 are equivalent to ASCII and LMBCS codes 32 through 127.

link

A connection between two applications or two 1-2-3 workbook files that lets the applications or workbooks share data. You can use Object Linking and Embedding (OLE) and Dynamic Data Exchange (DDE) to create links between 1-2-3 and other applications.

To create a link between 1-2-3 workbook files, use file references in formulas or Edit - Paste Link.

LMBCS (Lotus Multibyte Character Set)

The character set that 1-2-3 uses to store characters. It includes all the characters contained in LICS, ASCII, and most other international character sets. If the operating system cannot represent a LMBCS character, a substitute character appears.

locked sheet

A sheet that was locked using Sheet - Sheet Properties (Basics tab). Locking a sheet prevents changes to contents of protected cells.

locked workbook

A workbook file that was locked using File - Workbook Properties (Security tab). Locking a workbook prevents changes to protected cell contents, styles, sheet and range names, versions, charts, maps, drawings, embedded objects (including Approach query tables), DQA query tables, datalink tables, and Web tables. It also prevents changes to protection and workbook reservation settings.

logical formula

A formula that evaluates a condition as true or false by using a logical operator or a logical @function. The result of a logical formula is 1 for true or 0 for false.

For example, the formula `+A2>8` returns 1 (true) when the value in A2 is greater than 8; it returns 0 (false) when the value in A2 is 8 or less.

long label

A label that exceeds the column width. If the cell to the right is blank, a long label extends into the next column. If the cell to the right is not blank, 1-2-3 displays as much of the label as possible.

1-2-3 stores the entire label in the cell. To see the entire label, widen the column, double-click the cell, or move the cell pointer to the cell and look at the label in the contents box.

loop

A set of macro instructions that executes repeatedly. You can use the macro commands {FOR} and {BRANCH} to create a loop in a macro.

panes

A display of two or four parts of a sheet in the same window. Use View - Split to divide a window into panes and to synchronize or unsynchronize scrolling in the panes. Use View - Clear Split to clear panes.

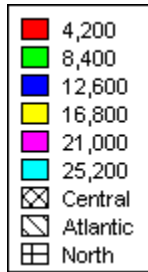
1-2-3 workbook object

A 1-2-3 workbook that is embedded in another application file, such as a Word Pro document.


To edit a 1-2-3 workbook object embedded in another application file, double-click the object.

map legend

Explains the meaning of the colors and patterns in a map. Values used as legend labels either exactly match values in the range of map data, or they represent the upper limit of the values contained in the bin. Use Map - Color Bins or Map - Pattern Bins to change the labels, the colors and patterns, and the values used to create bins.

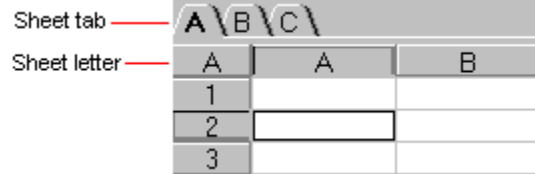


pin character

A symbol, such as , or label, such as "World Headquarters" that you can add to your map just as you might write annotations or stick pins on a paper map.

To create a pin character, enter the following in the range of map data:

- A symbol or label
 - The latitude and longitude to locate the pin character in the map
- Tip** To find the latitude and longitude, right-click the spot on the map.
- (Optional) the color of the pin character

sheet tab

The tab appears above the sheet. Initially, workbooks have a single tab with the letter A for the first sheet. To insert additional sheets, use Create - Sheet or click the New Sheet button. To enter a sheet name, double-click the tab, type the name, and press ENTER. To turn sheet tabs on and off, choose Set View Preferences (View tab) from the View menu.

mouse pointer

The symbol that indicates the location of the mouse on the screen as you move around the sheet. The pointer is usually shaped like an arrow, but can change depending on the task. For example, when you change the size of a window, the pointer becomes a black two-headed arrow. A sampling of pointers is shown below.



Standard pointer



Drag and drop



Change the width of a column or margin



Change the height of a row or margin



Change the height and width of an object



Select a range



Edit text



Drag and fill



Fast format

nested subroutine

In a macro, a subroutine that is called from within another subroutine. If 1-2-3 encounters a subroutine call while executing a subroutine, it transfers control to the subroutine specified in the subroutine call, performs the instructions there, returns to the first subroutine, finishes the instructions there, and finally returns to the main macro.

record

A one-row collection of information about one item in a database table. The first row of a database table contains field names, which identify the data in records; all other rows contain records.



operator

A symbol in a formula that indicates the relationship between two values or the type of operation to be performed. 1-2-3 uses arithmetic, logical, and text operators.

Arithmetic operators

+	addition
*	multiplication
^	exponentiation
-	subtraction
/	division

Logical operators

=	equal to
<	less than
>	greater than
<>	not equal to
<=	less than or equal to
>=	greater than or equal to
#AND	AND
D#	
#NOT	NOT
T#	
#OR	OR
#	

Text operator

&	ampersand
---	-----------

text block

A graphic object, shaped as a rectangle or square, that contains text. Text blocks, like other graphic objects, can be moved, copied, and sized. You can also edit, align, and change the font of the text in a text block.

Choose Create - Text to create a text block. Select the text block and use Drawing - Drawing Properties to change the appearance of a text block.

text formula

A formula that uses text in quotation marks and the text operator & (ampersand) in its calculations. For example, the formula +"Ms."&" Smith" combines the two words and a space between them to display the label Ms. Smith (be sure to include a space inside one of the pairs of quotation marks).

value

An entry that is a number, a formula, or an @function. 1-2-3 changes the mode to Value if you begin an entry with a number or one of the following symbols:

+ = - @ 0 (# \$ (or current currency symbol)

point size

In reference to fonts, a point is a unit of measurement that determines the height of a character. A point is approximately $\frac{1}{72}$ of an inch.

scroll bar



Scroll box

The bar that appears at the right or bottom of a window or list box when the contents exceed the size of the window or list box. To scroll within a window or list box, click the scroll arrows or drag the scroll box. To turn the scroll bars in Workbook windows on and off, use View - Set View Preferences.

server

During linking or embedding, the application that provides data to, or receives instructions from, another application (the container). For example, when you link to 1-2-3 data from a Word Pro document, 1-2-3 is a server application.

1-2-3 supports OLE as both a container application and a server application.

text file

A file on disk in ASCII format. Use File - Save As and specify the file type "Text (TXT)" to create a text file in 1-2-3.
Use File - Open to read data from a text file into 1-2-3.

relative reference

In a formula, a reference to a cell or a range that changes when you copy the formula. A relative reference refers to the location of the data in relation to the formula. A relative reference can be an address or range name.

For example, if the formula $+A1+A2$ is in cell A4 and you copy this formula to B4, the formula changes to $+B1+B2$. A1 and A2 are relative references, which means that they refer to the values entered in cells two and three rows above the formula. After you copy the formula, the relative references still refer to the cells two and three rows above the formula.

If you do not want a cell or range address to change when you copy a formula, use an absolute reference.

query table

A Lotus Approach object embedded in a 1-2-3 workbook. A query table contains a copy of the records from a source database table in either 1-2-3 or an external table, and is linked to the source database.

You create a query table in 1-2-3 to work with records from a database table. Once you create a query table in 1-2-3, you can manipulate records from the source database table. You can also send the results to an output range in 1-2-3 where you can format the data for printing, and use the data in calculations or to create charts and maps.

OLE (Object Linking and Embedding)

A method for linking data between applications or embedding data (called objects) created with one application into files created with another application.

A link is a connection between two applications that lets the applications share data.

An embedded object is an object created in one application but stored in a file in another application (the container application). The embedded object becomes part of the file in which it is embedded and is not linked to another file.

Use Edit - Paste Link, Edit - Paste Special, or Create - Object to create a link or embed an object in a 1-2-3 workbook.

sheet letter



The letter in the top left corner of the sheet that identifies each sheet in a workbook.

A 1-2-3 workbook can contain up to 256 sheets, with letters from A (for the first sheet) through IV (for the 256th sheet). In the cell address, the sheet letter is followed by a colon (A:) to distinguish it from the column letter (A).

To select all the cells in a sheet, click the sheet letter.

wildcard character

The * (asterisk) or the ? (question mark) used in file names, criteria, and @functions.

* Represents any number of sequential characters

? Represents a single character

In file names, for example, *.123 lists all files with a .123 extension; *.wk? lists all files with extensions that begin with .wk, such as .WK4, .WK1, and .WK3. In criteria, B* matches all entries that begin with B. The criteria B??? matches all entries that begin with B and contain three other characters.

sort

To arrange data in a range in a particular order, determined by the contents of one or more columns or fields. Use Range - Sort to sort data in ascending (A through Z, 0 through 9) or descending (Z through A, 9 through 0) order.

To change the sort order, use File - User Setup - 1-2-3 Preferences (General tab).

macro

A set of instructions, called macro commands, that automate a 1-2-3 task. You can use a macro to enter data or to perform a series of 1-2-3 commands to style sheets or workbooks, guide users through specific applications, calculate complex formulas with variable data, extract records from a database table, and so on.

path

The drive, directory, and subdirectories in which you save and open a file. In C:\1996\BUDGET.123, the path for the file BUDGET.123 is C:\1996. A backslash (\) must separate the path and the file name.

Scientific format

Displays numbers in scientific (exponential) notation, with up to 15 decimal places and an exponent of up to 3 digits. For example, the number 123 displays as 1.23E+002 in Scientific format.

tilde (~)

The keyboard character that represents ENTER in macros.

nonblank cell

A cell that contains a label-prefix character, letters, numbers, or spaces. A nonblank cell can appear to be blank if it has only a label-prefix character or spaces in it.

time number

A decimal from 0.000000 through 0.999988 that 1-2-3 assigns in sequence to each moment in the 24 hours from midnight through 11:59:59 PM.

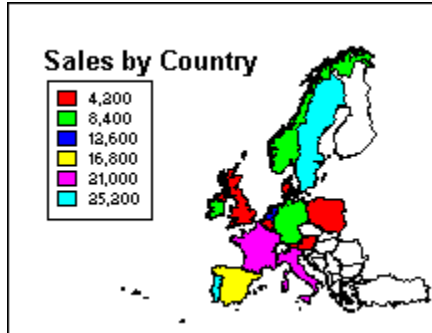
If you enter a value that looks like a time, for example 05:57 PM or 17:57:00, 1-2-3 enters the time as you typed it in the cell; the corresponding time number is stored in the cell.

Use a time @function to enter a time number in a sheet. You can display a time number in a variety of time formats.

map data bin

A group of values in a set of map data. When the map data contains more than 6 values, 1-2-3 groups the values in 6 bins and displays each bin as a color in the map. If you have two sets of map data, 1-2-3 creates pattern bins as well as color bins.

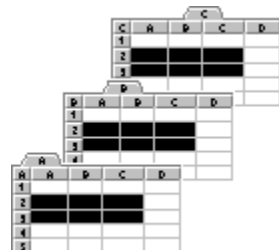
In this map, 1-2-3 groups the sales data for 15 countries into 6 bins.



The legend labels indicate the upper limit of data in that bin. For example, each country that falls into the red bin has sales less than or equal to 4,200.

3D range

A range that spans two or more contiguous sheets and includes the same cells in those sheets.



To select a 3D range, select the range in the first sheet you want to include; then, hold down SHIFT and click the tab of the last sheet you want to include.

undefined range name

A range name that is not assigned to a range. Formulas that contain undefined range names evaluate to ERR.

range

A single cell, a rectangular block of adjoining cells, an entire sheet, or an entire workbook. A range is represented as the addresses of its top left and bottom right cells, separated by two periods, for example, A:B2..A:C3.



A 3D range spans two or more contiguous sheets; for example, A:B1..B:B5.

version

Versions are sets of different data for the same named range. Each version has a name. 1-2-3 keeps track of the date and time the version was created or modified, and the name of the person who created or modified it. You can also assign styles to a version and attach a descriptive comment.

subroutine

A discrete set of macro instructions that runs from within the macro. When the main macro calls the subroutine, control passes to the subroutine. After 1-2-3 completes the instructions in the subroutine, control returns to the main macro.

number format

The way 1-2-3 displays numbers on the screen. A number may look different from the actual value entered in the cell, depending on the number format. For example, the entry 25.451 may appear as \$25.45, 2545%, or 25.5.

NA

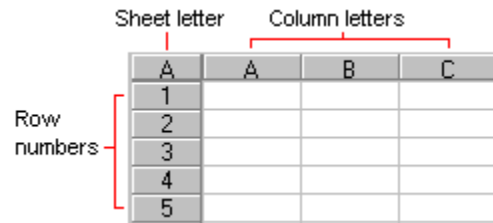
A special value that either 1-2-3 or you generate to indicate that a value needed to complete a formula is not available. @NA returns the value NA.

NA can ripple through formulas: when formulas result in NA, other formulas that depend on them also result in NA. This ripple-through effect also means that when you provide the previously unavailable value to a formula that contains NA, the results of the dependent formulas also become correct.

The label NA is not equivalent to the value NA.

sheet frame

The border on the left and top of the sheet that contains the sheet letter, row numbers, and column letters.



The diagram shows a grid representing a sheet frame. The first column contains row numbers 1 through 5, and the first row contains column letters A, B, and C. Red arrows point from labels to the corresponding parts of the grid: 'Sheet letter' points to the 'A' in the first row, 'Column letters' points to the 'A', 'B', and 'C' in the first row, and 'Row numbers' points to the '1', '2', '3', '4', and '5' in the first column.

	A	A	B	C
1				
2				
3				
4				
5				

Click the sheet letter, column letter, or row number to select the entire sheet, column, or row.
Use View - Set View Preferences (View tab) to hide or show the sheet frame.

scrolling

Moving horizontally or vertically through a sheet or a list box, or moving the cell pointer from one sheet to another. To scroll within a sheet or list box, click the scroll arrows, drag the scroll box, or use the pointer-movement keys. When you scroll within a sheet, the view of the current sheet moves, not the cell pointer.

range name

A name that identifies a range and that can be used in commands and formulas instead of the range address. The formula `@AVG(GRADES)` is easier to understand than `@AVG(C4..C29)` because the range name GRADES tells you what kind of values the range contains.

You can name a range by selecting the range and choosing Range - Name. Click the navigator to see a list of range names in the current workbook. When the range is selected in the workbook, the range name appears in the selection indicator.



Time format

The way 1-2-3 displays a time number. To apply a time format to a number in a range or chart, use the Number Format tab in the InfoBox.

You can also use the status bar to apply a time format to a range.

1-2-3 automatically formats data as a time if you enter it using a format 1-2-3 recognizes. 1-2-3 automatically recognizes data entered as 05:57:00 PM, 05:57 PM, 17:57:00, or 17:57, as well as data entered in any format you promote to the Frequently Used list.

printer driver

A software program that controls how 1-2-3 communicates with your printer. 1-2-3 uses the printer drivers supplied by the operating system.

yes/no argument

Text that specifies whether to turn a setting on or off. You can use on, true, or yes to turn a setting on; you can use off, false, or no to turn a setting off.

Enter the argument as text enclosed in " " (quotation marks), a text formula, or the address or name of a cell that contains a label or a formula that results in a label.

macro keyword

The first word in a macro command. The macro keyword tells 1-2-3 what action to perform. For example, in the macro {BRANCH TOTALS}, the keyword is BRANCH.

recalculation

Re-evaluation of formulas in active workbooks using the current cell values.

Percent format

Displays numbers as percentages (the number multiplied by 100) with a percent sign and up to 15 decimal places.

pointer-movement keys

Keys that control the movement of the cell pointer, menu pointer, and insertion point. These keys include , ↓, →, ←, PG UP, PG DN, and HOME, and can be combined with CTRL and END to move around sheets in the same workbook and in other active workbooks.

SmartMaster

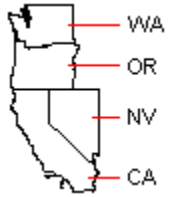
Templates for business and financial tasks. Each SmartMaster contains sample data and instructions that show you how the template works. Enter your own data and use the built-in SmartMaster charting and printing features for quick results.

You can create your own SmartMaster templates by saving a workbook as a .12M file.

map code

Text that 1-2-3 recognizes as a geographic region in a map, such as a state, province, or country. Depending on the map type, map codes can be full names or abbreviations.

1-2-3 uses predefined map codes to associate each row of data with a single geographic region in the map. In the Region Check dialog box, you can link custom map codes to codes that 1-2-3 recognizes.



named style

Styles, copied from a single cell, that you can apply to other ranges in a sheet. A named style can include number format, font, point size, underlining, bold, italics, borders, colors, pattern, and alignment.

Use Range - Range Properties (Named Style tab) to create a named style.

range address

The location of a range in a workbook. A range address consists of the addresses of the top left and bottom right cells, separated by two periods; for example, A:B2..A:C3.



map overlay

Another map added to an existing map to increase the geographic area displayed. For example, you can add the world map overlay to a map of Europe. You cannot link sheet data to an overlay.

pattern

A style, such as cross-hatched lines, that you can use to distinguish a range, drawing, map region, or data series in a bar, area, mixed, doughnut, or pie chart. You can also apply a color to a pattern. After selecting a range, drawing, map, or chart, use the Lines & Colors tab in the InfoBox to apply a pattern and pattern color.



SmartIcons



Buttons (icons) in the 1-2-3 window that you click to perform commands.

Choose File - User Setup - SmartIcons Setup to change a set of SmartIcons or to create custom SmartIcons that run your scripts or macros.

Choose View - Hide SmartIcons or View - Show SmartIcons to hide or show the SmartIcons.

named print styles

Print options, such as margins, headers, and footers, that you name and save with File - Preview & Page Setup (Named Style tab). When you save print styles, you can use them again.

Named print styles are stored in the workbook file. You can copy print styles among active workbooks.

mixed reference

In a formula, a reference to a cell in which parts of the referenced address are absolute and parts are relative. Absolute references in a formula refer to the same cells no matter where you copy or move the formula. To make a reference absolute, precede it with a \$ (dollar sign). Relative references in a formula adjust relative to their new location when you copy or move the formula.

For example, the formula `+A:$C4` contains a mixed reference. The column letter (C) is an absolute reference and is preceded by a \$. The sheet letter (A) and the row number (4) are relative references. If you copy the formula, the column letter stays the same while the sheet letter and row number adjust relative to their new location.

Formula format

Displays formulas written out, rather than as their computed values.

offset number

The number that corresponds to the position of a specified row, column, sheet, character, list item, or byte; used in some @functions and macros. The first offset number is 0, the second 1, the third 2, and so on.

In a database @function, the *field* argument can be the offset number for a field in the database table. For example, if the field SALES is in the fifth column of the database table, the offset number for that field is 4.

text argument

In a macro command or @function, text enclosed in " " (quotation marks), a text formula, or the address or name of a cell that contains a label or a formula that results in a label.

Note In @functions that use text arguments for dates, you should always specify a 4-digit year to make sure you get the results you want -- for example, "12/31/2005." If you specify a 2-digit year, 1-2-3 uses the date setting in the 1-2-3 Preferences dialog box to determine whether the year refers to the 20th or the 21st century.

radian

The unit 1-2-3 uses to measure an angle, equal to approximately 57 degrees, 17 minutes. Used in mathematical @functions such as @TAN and @COS.

styles

Enhancements applied to the current selection. Styles include bold, italics, underlining, frames, border or line width and style, colors, patterns, alignment, font, point size, and number formats. You can use the InfoBox or the status bar to apply a wide range of styles.

version group

A named group of one or more versions. Each version in a version group must be associated with a different named range.

In previous releases of 1-2-3, version groups were called scenarios.

numeric formula

A formula that calculates numeric values using one or more of the arithmetic operators:

+ - * / ^

For example, the numeric formula +H16*2 multiplies the value in cell H16 by 2.

NotesFlow form

A form designed in Lotus Notes that can contain an embedded object such as a 1-2-3 workbook.

password

A password can contain up to 15 uppercase and lowercase characters. 1-2-3 passwords are case-sensitive, so you must remember the exact combination of uppercase and lowercase characters you use when you create the password.

argument placeholder

Words that indicate the arguments needed to fill in an @function or macro command. To use the @function or macro command, you must replace the placeholder with the actual argument.

For example, in the @function @MIN(*list*), *list* is inserted in the @function by 1-2-3. You replace *list* with the name or address of the range for which you want to find the minimum value.

workflow application

An application that reflects and facilitates how people work together as a group. Workflow applications can automate and streamline the process of performing routine tasks.

flow control window

The window that appears when you open a routed workbook. The flow control window's title bar says TeamMail or TeamReview, depending on whether a workbook or a range was sent.

The flow control window stays open while you work in 1-2-3 and lets you control the flow of the routed workbook; for example, returning the workbook to the originator or sending it to the next person on the route list.

day-count basis

A convention for counting the number of days in a month and a year. Some calendar and financial @functions offer a choice of the following bases in order to simplify calculations:

Day-count basis 1-2-3 counts	
actual/actual	The actual number of days in a month and in the year
30/360	30 days in every month, and 360 days in the year, calculated according to the standards of the U.S. securities industry
European 30/360	30 days in every month, and 360 days in the year
actual/360	The actual number of days in every month, and 360 days in the year
actual/365	The actual number of days in every month, and 365 days in the year

To move, collapse, or close the InfoBox

To move the InfoBox, drag here

To collapse or reopen the InfoBox, double-click here

To close the InfoBox, click here



workbook

A 1-2-3 file, with one of the following file extensions: .123, .WK1, .WK3, .WK4. SmartMaster templates (.12M and .WT4) are also workbooks.

A workbook can be embedded as a 1-2-3 workbook object in another application that uses OLE.

DQA query table

A table created with the Data Query Add-In (DQA) that contains a copy of the records from a source database table in either 1-2-3 or an external table. A DQA query table is linked to the source database.

You create a DQA query table in 1-2-3 to work with records from a database table. Once you create a query table in 1-2-3, you can manipulate records from the source database table. You can analyze, organize, and print data, create charts and maps from the data, and use the data in calculations.

The Data Query Add-In is a special file that provides data query functionality similar to that in 1-2-3 Release 5. To load the Data Query Add-In, choose File - Add-Ins - Manage Add-Ins. After DQA is loaded, the Query command appears on the main menu.

You can also use macro commands to create and work with DQA query tables.

ALT tag

An HTML tag that allows you to specify an alternate string of text if the image cannot be displayed by the browser. This tag is an attribute for the IMG tag that inserts an image into a Web page.

anchor cell

The top left or bottom right cell of a named range used by a Web table, a query table, or a datalink table.

container application

An application that supports OLE technology so that you can embed or link to objects in the application's files. For example, if you use Freelance Graphics to create a logo and then embed the logo in a 1-2-3 workbook, 1-2-3 is a container application.

1-2-3 supports OLE as both a container application and a server application.

datalink table

Data stored in the sheet and linked through OLE to a different server application. 1-2-3 creates a datalink table when the server application provides data in Text, .WK3, or .WK1 format. A datalink table can include text and numbers.

	Q1	Q2
North	1111	1350
South	1400	1540
East	2300	2500
West	1900	1860

DDE (Dynamic Data Exchange)

A protocol used to share data between applications.

You can use DDE to create links between two files created in applications that support DDE. The server (source) file contains the original data, and the client (destination) file contains the linked data.

To update DDE links, both applications must be active.

embedded object

Data or a graphic object that is created by one application (the server) but stored in another application's file (the container). Once embedded, the object becomes part of the file in which it is stored and is not linked to data outside of that file.

You can copy, move, delete, and edit embedded objects.

firewall

A collection of hardware and software components that filters incoming and outgoing network traffic to create a secure environment.

FTP (File Transfer Protocol)

A protocol used to transfer files from one computer to another. FTP also refers to the actual application that moves files using the FTP protocol.

1-2-3 can open and save files on FTP servers.

SQL command

A command in the Structured Query Language (SQL) that sends instructions to an external database table that understands SQL.

crosstab

A table that cross-tabulates the information in two fields in a database table.

For example, the crosstab table below uses data from a database table that contains orders for dictionaries. The crosstab table summarizes the total number of orders for each dictionary format, by each type of customer.



HTML (Hypertext Markup Language)

The language used to write and format Web pages. HTML is a subset of the International Organization of Standards (ISO) Standard Generalized Markup Language (SGML).

1-2-3 can open files written and saved in HTML format.

HTML table

A structure defined using the Hypertext Markup Language (HTML) that contains rows, columns, and cells. HTML tables support a limited amount of formatting.

You can save a range as an HTML table using File - Internet - Convert to Web Pages.

HTML tag

An HTML (Hypertext Markup Language) tag is a markup tag with coded instructions that define the structure of an HTML document. All HTML tags are enclosed in <> (angle brackets). A typical HTML tag looks like this:

```
</table>
```

```
text
```

```
</table>
```

When opening an HTML file, 1-2-3 looks for two HTML tags, <table> and <pre>:

- The <table> tag marks the beginning and end of a table.
- The <pre> tag preserves the formatting and spacing of text as typed in the source code, and displays the text in a monospace font, different from the standard browser text.

HTTP (Hypertext Transfer Protocol)

A protocol used to transfer files from one computer to another. A Web server is also known as an HTTP server.

1-2-3 can open files on HTTP (Web) servers.

hyperlink

A cross-reference or connection to information in a different location. You can use hyperlinks to jump to a Web site on the Internet, to other files, and to ranges and objects in the current workbook.

To attach a hyperlink to a cell, button, or picture, use Create - Hyperlink.

insertion point

The vertical line that indicates where the next character you enter will appear.

4	Atlanta	
5	Chicago	
6	New York	←
7		

Internet

A group of networks that are connected to one another and span the world. The Internet gives users access to services such as e-mail, file transfer, and the World Wide Web.

intranet

A computer network with restricted access that resides behind a firewall, with no connection to the Internet or a proxy server. Companies use intranets to share information internally that they do not want made available to non-employees.

Net-It print driver

When you convert ranges, sheets, or workbooks to the jDoc format, 1-2-3 uses the current print settings to "print" to the Net-It print driver. (This print driver is installed with 1-2-3 unless you choose not to install it.)

Preview window

A window that shows how the selected data will look when printed.

When you open the Preview window using File - Preview & Page Setup, 1-2-3 displays the current workbook in a window on the left and the Preview window on the right. 1-2-3 also opens the InfoBox so you can change print and page settings and view the results immediately.

proxy server

A server that sits between a client application, such as a Web browser, and a host server. A proxy server intercepts all requests to the host server to see if it can fulfill the requests itself. If not, it forwards the request to the host server.

Proxy servers are used primarily to save time and to verify and authorize access.

Script

A sequence of one or more LotusScript statements. A script can be a complete application or part of an application.

Script Debugger

A window in which you can set, clear, disable, and enable breakpoints and step through scripts to locate the source of problems that may occur while a script is running.

Script Editor

A window in which you can write and edit scripts, check script syntax, and set breakpoints for debugging scripts. The Script Editor initially displays a script associated with the selected object.

SmartFill list

A sequence of data that can be used to fill a range or name a series of sheets.

1-2-3 comes with predefined SmartFill lists such as months and days of the week. For example, when you select a cell that contains the word January and then use drag and fill, 1-2-3 automatically enters February, March, and so on.

To create and manage your own SmartFill lists, choose File - User Setup - SmartFill Setup.

SmartLabel

Text that is associated with a formula. When you type a SmartLabel in a cell, 1-2-3 applies the formula to a range.

1-2-3 comes with predefined SmartLabels that let you perform different calculations. For example, you can type the word Total in a cell to calculate the sum for a list of values. You can use other predefined SmartLabels such as Average, Median, and Standard Deviation.

Choose File - User Setup - SmartLabels Setup to create new SmartLabels using the formula you want. You can also specify synonyms for SmartLabels and assign a particular number format to the result.

URL (Uniform Resource Locator)

The address of a Web site -- for example, www.lotus.com.

Web table

A table of data that you import from a specified Web address into 1-2-3. A Web table contains a copy of the data from the Web page and stays linked to the source location.

Once you create a Web table, you can choose when to refresh the data in the table and set other options that control the size and appearance of the Web table.

Web browser

A tool or software program that lets you access information on the World Wide Web. Personal Web Navigator, Netscape Navigator, and Internet Explorer are Web browsers.

jDoc format

A high-fidelity representation of a selected range, sheet, or workbook that retains its original formatting. A range, sheet, or workbook converted to the jDoc (print snapshot) format looks identical to what your printed output would look like.

Web page

A document that you view in a Web browser. Although you might need to scroll through a Web page to see its entire contents, or print the Web page out on more than one piece of paper, a Web page is a single online page.

A Web site comprises one or more Web pages.

World Wide Web

A hypertext-based system for finding and accessing Internet resources. Also referred to as WWW and the Web.

To access the Web, you use a Web browser which lets you read documents (Web pages) stored on the Web. Web pages generally contain hypertext links to information on other Web servers.

detail row or detail column

Contains entries subordinate to a higher level summary row or column -- for example, monthly figures subordinate to a yearly total.

format line

Indicates how you want to parse the long labels in a selected range. The format line can contain the following symbols:

Symbol	Description
L	Represents the beginning of a label block.
V	Represents the beginning of a value block.
D	Represents the beginning of a date block.
T	Represents the beginning of a time block.
S	1-2-3 does not parse the data block below the S; to enter this symbol, edit the format line.
>	Represents any character in a data block after the first character.
*	Represents a blank space that can become part of a data block if the block requires extra characters.
	The vertical bar label-prefix character appears at the beginning of the format line in the contents box after you parse the data.

backup file

A copy of a file on disk. When you create a backup file, 1-2-3 assigns the extension .BAK to the existing file on disk and saves the file in memory with the specified file extension (for example .123 or .WK4). If an associated format file (.FM3) exists, 1-2-3 assigns the extension .FMB to the existing file on disk.

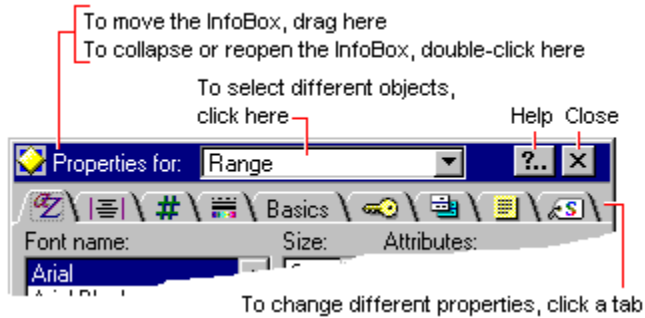
Note You cannot create a backup file for a dBASE (.DBF) or Paradox (.DB) file.

InfoBox

A window that shows the selected object's current properties, such as colors, text attributes, and other settings. If you select a different object, the settings in the InfoBox change to reflect the properties of the new selection.

You use the InfoBox to change the properties of an object or any of its parts; for example, an entire sheet, or a range in the sheet.

The selected object reflects the changes immediately. You can make many changes to one object or several objects without closing the InfoBox. To undo the most recent change, choose Undo from the Edit menu.



in-place editing

Editing an embedded object without leaving the application in which it is embedded. Rather, the menu changes to show commands from the server application.

navigator

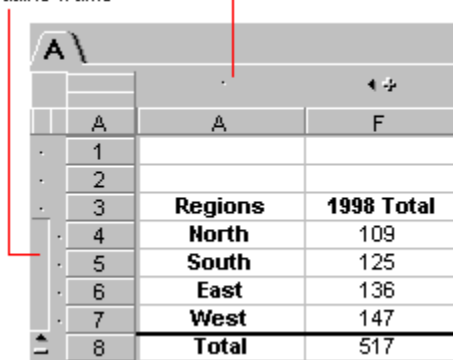


Click the navigator to see the list of named ranges in the current workbook. Use the navigator when you want to go to and select a named range, enter a range name in a formula, or specify a range name in a dialog box.

outline frame

Shows the structure of demoted rows and columns in a sheet, and contains buttons for collapsing and expanding the outline.

Outline frame



The image shows a screenshot of an Excel spreadsheet's outline frame. A red line points from the text 'Outline frame' to the frame. The frame displays a table with 8 rows and 2 columns. The first column is labeled 'Regions' and the second column is labeled '1998 Total'. The rows are numbered 1 through 8. The data is as follows:

Regions	1998 Total
North	109
South	125
East	136
West	147
Total	517

out-of-place editing

Editing an embedded object by opening the server application.

range selector



You can select a range from within a dialog box or the InfoBox by clicking the range selector button. When you click the button, 1-2-3 hides the dialog box or the InfoBox so that you can select the range. After you select the range, the dialog box or InfoBox reappears, with the range address entered.

To select an entire column or row

Click the column letter or row number.

To include consecutive columns or rows in the selection, hold down SHIFT and click the column letters or row numbers.

To include non-consecutive columns or rows, hold down CTRL and click the column letters or row numbers.

To select a graphic object

To select a button, hold down SHIFT and click the button.

To select all other types of graphic objects, click the object.

To select multiple objects, hold down SHIFT and click each object.

To select a range

Click a cell in one corner of the range, and drag to highlight the rest of the range.

To select a range or collection

To select a range, click a cell in one corner of the range, and drag to highlight the rest of the range.

To select a collection, select the first range, then hold down CTRL and select the other ranges.

To select a range, collection, column, or row

To select a range, click a cell in one corner of the range, and drag to highlight the rest of the range.

To select a collection, select the first range, then hold down CTRL and select the other ranges.

To select an entire column or row, click the column letter or row number.

To select a range or graphic object

To select a range, click a cell in one corner of the range, and drag to highlight the rest of the range.

To select a button, hold down SHIFT and click the button. To select all other types of graphic objects, click the object.

To select more than one range or graphic object, hold down CTRL while selecting the additional ranges or objects.

Note You can't select a mixture of ranges and objects.

To select a sheet tab

To select the tab of	Do this
The current sheet	Click the tab.
A range of contiguous sheets	Make the first sheet in the range the current sheet, click the tab, then press SHIFT and click the tab of the last sheet in the range.
A collection of sheets	Make the first sheet in the collection the current sheet, click the tab, then press CTRL and click the tab of each sheet in the collection.

To select text

Select the cell or range that contains the text.

Click the text block, map title, map legend, chart title, legend label, or axis label. SHIFT+click a button.

summary row or summary column

Contains high-level entries that summarize lower level entries -- for example, the yearly total for a range of monthly figures, or a section title in a sheet with several subsections.

Basic properties for datalink tables



Use the Basics tab to rename the selected datalink table and view information about it. You can also turn the table border on or off.

Choose a task

[Naming a graphic object](#)

[Hiding and showing datalink table borders](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_123_WORKING_WITH_DATALINK_T
ABLES_OVER',0)} [See related topics](#)

Range properties for datalink tables



Use the Range tab to change the size of a datalink table and its location in the sheet.

Choose a task

[Sizing a datalink table](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_123_WORKING_WITH_DATA LINK_T
ABLES_OVER',0)} [See related topics](#)

Basic properties for Web tables



Use the Basics tab to rename a Web table, edit the Web site address, and change the display properties.

Choose a task

[Changing a Web table name and source URL](#)

{button ,AL('H_USING_THE_INFOBOX_STEPS;H_THE_INFOBOX_OVER',0)} [See related topics](#)

Range properties for Web tables



Use the Range tab to change the size of a Web table and its location in the sheet.

Choose a task

[Sizing a Web table](#)

[Moving a Web table](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS',0)} [See related topics](#)

Refresh properties for Web tables



Use the Refresh tab to set options for updating the data in a Web table.

Choose a task

Selecting refresh options for a Web table

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS',0)} [See related topics](#)

Details: Changing group or collection properties

When the selected objects are the same type

If the objects in the group or collection are all the same object type -- for example, all rectangles -- the InfoBox displays options for changing the properties of the selected object type.

For example, if you select a collection that consists of two rectangles, the InfoBox displays the Lines & Colors tab and the Basics tab.

When the selected objects are different types

If the objects in the group or collection are different types, the InfoBox displays options for changing the properties of all the selected object types.

For example, if you select a set of grouped objects that consists of a rectangle and a text block, the InfoBox displays the Text Format, Alignment, Lines & Colors, and Basics tabs. When you change a property, 1-2-3 changes only those objects in the selection that have that property.

{button ,AL('H_CHANGING_GROUP_OR_COLLECTION_PROPERTIES_STEPS',1)} [Go to procedure](#)

Changing group or collection properties

1. Select the group or collection you want to change.
2. Right-click the selection, and then choose the Properties command.



3. Click the tabs in the InfoBox to find the properties you want to change.
4. Change one or more properties.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_CHANGING_GROUP_OR_COLLECTION_PROPERTIES_DETAILS',1)} [See details](#)

{button ,AL('H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_INTERIOR_COLOR_AND_PATTERN_STEPS;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_TEXT_FORMAT_STEPS;H_FASTENING_GRAPHICS_STEPS;H HIDING_OR_REDISPLAYING_GRAPHICS_STEPS;H_LOCKING_OR_UNLOCKING_GRAPHICS_STEPS;H_ROTATING_GRAPHICS_STEPS;H_ROTATING_DATA_STEPS;H_THE_INFOBOX_OVER;H_USING_DESIGNER_FRAMES_STEPS;H_STYLING_GRAPHICS_OVER;H_USING_THE_INFOBOX_STEPS',0)} [See related topics](#)

Basic properties for arcs



Use the Basics tab to rename and set options for fastening, hiding, locking, and rotating the selected arc.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Basic properties for buttons



Use the Basics tab to rename the selected button and change its text. You can also set options for fastening, hiding, and locking the button.

Choose a task

[Naming a graphic object](#)

[Details: Creating a script button](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0')} [See related topics](#)

Basic properties for charts



Use the Basics tab to rename and set options for fastening, hiding, and locking the selected chart.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS';,0)} [See related topics](#)

Basic properties for ellipses



Use the Basics tab to rename and set options for fastening, hiding, locking, and rotating the selected ellipse.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0)} [See related topics](#)

Line and color properties for ellipses, polygons, and map elements



Use the Lines & Colors tab to change the color, pattern, and border of the selected object.

Choose a task

[Changing interior color and pattern](#)

[Changing graphic object borders](#)

{button ,AL(`H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Basic properties for freehand drawings



Use the Basics tab to rename and set options for fastening, hiding, locking, reshaping, and rotating the selected freehand drawing.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Reshaping a polyline, polygon, or freehand drawing](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0')} [See related topics](#)

Number format properties for ranges



Use the Number Format tab to change how 1-2-3 displays values in cells. For easy access, you can also add the number formats you use most frequently to the status bar.

Choose a task

[Formatting numbers](#)

[Formatting numbers as currency](#)

[Changing the currency symbol](#)

[Adding a number format to the Frequently Used list](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_NUMBER_FORMATS_OVER',0)} [See related topics](#)

Text format properties for graphic objects and ranges



Use the Text Format tab to set the font, point size, attribute(s), and color for text in the selected object or range.

Choose a task

[Changing text styles](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Basic properties for lines and arrows



Use the Basics tab to rename and set options for fastening, hiding, locking, and rotating the selected object.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Line and color properties for lines and arrows



Use the Lines & Colors tab to change the line style, color, and width of the selected object. You can also add or remove arrowheads.

Choose a task

[Changing line styles](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;',0)} [See related topics](#)

Basic properties for map legends



Use the Basics tab to show or hide some or all of the selected legend, and to change the position of the legend in relation to the plot area.

Choose a task

[Changing map legend position](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Basic properties for map plot areas



Use the Basics tab to change the placement and size of the selected plot area. You can also rotate the plot area, zoom in for a closer look or zoom out to see more of the map, and see latitude and longitude readings for the center of the plot area.

Choose a task

[Changing the plot area of a map](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Basic properties for map titles



Use the Basics tab to show or hide the selected map title, change the placement of the title, and edit the text in the title.

Choose a task

[Changing a map title](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Basic properties for maps



Use the Basics tab to rename the selected map and tell 1-2-3 when to redraw the map. You can also set options for fastening, hiding, and locking the map.

Choose a task

[Naming a map](#)

[Redrawing maps](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Color properties for maps



Use the Colors tab to select different colors used for mapped data, to change the bin values associated with each color in the selected map, and to change the legend labels.

Choose a task

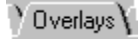
[Changing bin colors or patterns](#)

[Changing bin definitions for colors or patterns](#)

[Changing map legend labels](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Overlay properties for maps



Use the Overlays tab to superimpose additional maps on top of the selected map.

Choose a task

[Overlaying additional map areas](#)

[Removing an overlay from a map](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Pattern properties for maps



Use the Patterns tab to select different patterns used for mapped data, to change the bin values associated with each pattern in the selected map, and to change the legend labels.

Choose a task

[Changing bin colors or patterns](#)

[Changing bin definitions for colors or patterns](#)

[Changing map legend labels](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Range properties for maps



Use the Ranges tab to use different data ranges in the selected map, or to add [pin characters](#) to the map.

Choose a task

[Changing map range assignments](#)

[Adding pin characters to a map](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_MAPS_OVER',0)} [See related topics](#)

Basic properties for OLE objects



Use the Basics tab to rename the selected OLE object and view information about it. You can also set options for fastening, hiding, and locking the object.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0)} [See related topics](#)

Basic properties for pictures



Use the Basics tab to rename and set options for fastening, hiding, and locking the selected picture.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Basic properties for polygons



Use the Basics tab to rename and set options for fastening, hiding, locking, reshaping, and rotating the selected polygon.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Reshaping a polyline, polygon, or freehand drawing](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0')} [See related topics](#)

Basic properties for polylines



Use the Basics tab to rename and set options for fastening, hiding, locking, reshaping, and rotating the selected polyline.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Reshaping a polyline, polygon, or freehand drawing](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0')} [See related topics](#)

Line and color properties for arcs, freehand drawings, and polylines



Use the Lines & Colors tab to change the color, pattern, and line style of the selected object.

Choose a task

[Changing interior color and pattern](#)

[Changing line styles](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER',0)} [See related topics](#)

Header and footer properties



Use the Headers & Footers tab to add headers, footers, and repeating titles on each printed page.

Choose a task

[Adding headers and footers](#)

[Printing titles on each page](#)

{button ,AL(`H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER',0)} [See related topics](#)

Include properties for printing



Use the Include tab to change the data selected to print and to update the Preview window when the print selection changes.

Choose a task

[Changing the print selection](#)

[Updating the Preview window](#)

[Printing graphic objects, charts, tables, and maps](#)

[Printing cell comments and formulas](#)

[Printing sheet grid lines and frames](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Layout properties for printing



Use the Layout tab to specify margins, orientation, and centering, and to size data to the printed page.

Choose a task

[Changing print margins](#)

[Changing page orientation](#)

[Centering data on the printed page](#)

[Fitting your work on the printed page](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER',0)} [See related topics](#)

Named style properties for printing



Use the Named Style tab to customize print and page settings that you can use when printing.

Choose a task

[Creating a named print style](#)

[Applying a named print style](#)

[Redefining a named print style](#)

[Resetting a named print style](#)

[Retrieving a print style from an earlier release of 1-2-3](#)

[Renaming a print style](#)

[Deleting a named print style](#)

[Copying a named print style from another file](#)

{button ,AL('H_NS_PRINT_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0')} [See related topics](#)

Printer properties



Use the Printer tab to select a paper size and to view the name of the currently selected printer. You can also change the selected printer and its properties, as well as select the pages to print and how to number them.

Choose a task

[Changing the paper size](#)

[Numbering printed pages](#)

[Selecting a printer](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0')} [See related topics](#)

Text format properties for printing



Use the Text Format tab to set the font, point size, attribute(s), and color for text in headers and footers, cell comments, formulas, and scripts.

Choose a task

[Changing font properties for headers and footers](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER',0)} [See related topics](#)

Basic properties for query tables



Use the Basics tab to rename and set options for fastening, hiding, and locking the selected query table.

Note The options for fastening and hiding the query table are available only if the output range is turned off in the Output Range tab.

Choose a task when the query table has an output range

[Naming a graphic object](#)

[Controlling the display of the output range](#)

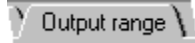
[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_DB_QUERY_TABLES_OVER;H_DB_WORKING_WITH_A_QUERY_TABLE_STEPS',0)} [See related topics](#)

Output range properties for query tables



Use the Output range tab to specify the range where you want 1-2-3 to put the query results.

Choose a task

[Controlling the display of the output range](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_DB_QUERY_TABLES_OVER',0)} [See related topics](#)

Alignment properties for ranges



Use the Alignment tab to change the alignment of cell contents in the selected range.

Choose a task

[Aligning data in cells](#)

[Spanning text across columns](#)

[Wrapping data in a cell](#)

[Rotating data](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_ALIGNMENT_OVER',0)} [See related topics](#)

Basic properties for ranges



Use the Basics tab to create a range name, mark a range as a Notes/FX field, and set column and row properties.

Choose a task

[Naming a range using the InfoBox](#)

[Setting up named ranges to exchange data with Notes](#)

[Sizing columns using the InfoBox](#)

[Sizing rows using the InfoBox](#)

[Hiding columns or rows using the InfoBox](#)

[Displaying hidden columns or rows using the InfoBox](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_PRINT_ADDING_A_PAGE_BREAK_STEPS',0)} [See related topics](#)

Cell comment properties for ranges



Use the Cell Comment tab to annotate cell contents.

Choose a task

[Creating a cell comment](#)

[Editing a cell comment](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0')} [See related topics](#)

Line and color properties for ranges



Use the Lines & Colors tab to add or change the color, pattern, border, and frame for the selected range.

Choose a task

[Changing interior color and pattern](#)

[Changing range borders](#)

[Adding designer frames](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER',0)} [See related topics](#)

Named style properties for ranges



Use the Named Style tab to work with groups of settings which you can use to format cells.

Choose a task

[Creating a named style](#)

[Applying a named style](#)

[Removing a named style from cells](#)

[Resetting a cell's styles to a named style](#)

[Redefining a named style](#)

[Renaming a named style](#)

[Deleting a named style](#)

[Using style templates](#)

{button ,AL('H_NAMED_STYLES_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Security properties for ranges



Use the Security tab to hide or protect cell contents in the selected range.

Choose a task

[Hiding cell contents](#)

[Leaving part of a workbook or sheet unprotected](#)

[Protecting unprotected ranges in a locked workbook](#)

[Protecting unprotected ranges in a locked sheet](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_LOCKING_SHEET_CONTENTS_STEPS;H_LOCKING_WORKBOOK_CONTENTS_STEPS',0)} [See related topics](#)

Version properties for ranges



Use the Version tab to rename a version, change its comment, and select display, style, and protection properties.

Choose a task

[Changing version properties](#)

For a description of the options on this tab, see [Options](#).

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_WORKING_WITH_VERSIONS_OVE
R',0)} [See related topics](#)

Basic properties for rectangles



Use the Basics tab to rename and set options for fastening, hiding, locking, and rotating the selected rectangle.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

[Rotating graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Line and color properties for rectangular objects



Use the Lines & Colors tab to add or change the color, pattern, border, and frame for the selected object.

Choose a task

[Changing interior color and pattern](#)

[Changing graphic object borders](#)

[Adding designer frames](#)

{button ,AL('H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',0)} [See related topics](#)

Alignment properties for sheets



Use the Alignment tab to change the default alignment of cell contents in the selected sheet(s).

Choose a task

[Setting a default alignment for a sheet](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_ALIGNMENT_OVER;';0)} [See related topics](#)

Basic properties for sheets



Use the Basics tab to change the sheet name and tab color, set the default column and row sizes, hide the selected sheet, and protect cell contents in the sheet.

Choose a task

[Naming a sheet using the InfoBox](#)

[Changing sheet tab color](#)

[Setting a default column width for a sheet](#)

[Setting a default row height for a sheet](#)

[Details: Hiding sheets](#)

[Locking sheet contents](#)

[Unlocking a sheet](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS','0)} [See related topics](#)

Line and color properties for sheets



Use the Lines & Colors tab to change the color and pattern defaults for all cells in the selected sheet(s).

Choose a task

[Setting default colors and pattern for a sheet](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Number format properties for sheets



Use the Number Format tab to change the default display of values in the selected sheet.

Choose a task

[Setting a default number format for a sheet](#)

[Changing the currency symbol](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;H_NUMBER_FORMATS_OVER',0)} [See related topics](#)

Outline properties for sheets



Use the Outline tab to change the settings when you outline sheet data.

Choose a task

[Showing and hiding the outline frame](#)

[Specifying how summary data relates to detail data](#)

{button ,AL('H_OUTLINING_SHEET_DATA_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;',
0)} [See related topics](#)

Text format properties for sheets



Use the Text Format tab to change the default font, point size, attribute(s), and color of cell contents in the selected sheet.

Choose a task

[Setting a default font for a sheet](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Alignment properties for text blocks



Use the Alignment tab to change the alignment of text in the selected text block.

Choose a task

[Aligning data in text blocks](#)

[Rotating data](#)

{button ,AL('H_ALIGNMENT_OVER;H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0)} [See related topics](#)

Basic properties for text blocks



Use the Basics tab to rename and set options for fastening, hiding, and locking the selected text block.

Choose a task

[Naming a graphic object](#)

[Fastening graphic objects to cells](#)

[Hiding or redisplaying graphic objects](#)

[Locking or unlocking graphic objects](#)

{button ,AL('H_THE_INFOBOX_OVER;H_USING_THE_INFOBOX_STEPS;','0')} [See related topics](#)

Dialog box keys

Use these keys to move around and select options in the dialog box, and to close the dialog box.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To
, ↓, →, or ←	Move within a list, text box, or group of option buttons.
ALT+ a letter	Select the option or command with the underlined letter that you press.
ALT+F4	Close the dialog box without completing the command.
CTRL+BREAK	Cancel the current 1-2-3 command or operation and close the dialog box.
ENTER	Complete the command and close the dialog box.
ESC	Close the dialog box without completing the command.
SHIFT+TAB	Move backwards to the previous option, from bottom to top and right to left.
SPACEBAR	Select the option or operate the button that is current in a dialog box.
TAB	Move forward to the next option, from left to right and top to bottom.

Keys to select items in a drop-down box or list box

Press	To
a letter	Move to the first item that starts with that letter in a drop-down box or list box.
ALT+↓ ALT+	Open or close a drop-down box.
HOME END	Select the first or last item in a drop-down box or list box.
PG UP PG DN	Move to the top or bottom item in the list of items currently visible in a drop-down box or list box, and select the item.

{button ,AL('H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;',0)} [See related topics](#)

Editing keys

You can use these keys to move around, select, and change the entry in a cell when 1-2-3 is in Edit mode, or when you are in a text box. If 1-2-3 is in another mode, press F2 (EDIT) to get into Edit mode.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Keys to change an entry

Press	To
BACKSPACE	Erase the highlighted selection or the character to the left of the insertion point.
DEL DELETE	Erase the highlighted selection or the character to the right of the insertion point.
INSERT INS	Switch between inserting characters and typing over existing characters at the insertion point.

Keys to move the insertion point

Press	To
CTRL+← CTRL+→	Move the insertion point left to the beginning of the entry or right to the end of the entry.
HOME END	Move the insertion point to the first or last character in the entry.
← →	Move the insertion point one character to the left or right.

Keys to select characters in an entry

Press	To
SHIFT+← SHIFT+→	Extend the highlight to the left or right of the insertion point.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_EDITING_DATA_OVER;','0)} [See related topics](#)

Function keys

These keys perform special operations when used alone or in combination with ALT, CTRL, and SHIFT.

Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Note F2, F3, F4, F5, F6, F8, and F9 perform different actions when the Script Editor or the Script Debugger is active. For more information about these keys, see [Script editing and debugging keys](#).

Press	To
F1 (HELP)	Display a Help topic.
F2 (EDIT)	Switch into Edit mode. If the cell is blank, toggle between Edit and Ready modes. If the cell contains a label, toggle between Edit and Label modes.
F3 (NAME)	List range names or database table names in any active workbook, @functions, or macros, depending on the current task. F3 does not display lists in the InfoBox or with the Classic menu.
F4	Change the cell references in a formula from <u>absolute</u> to <u>mixed</u> to <u>relative</u> , when you enter or edit a formula. In Ready mode, anchor the cell pointer so you can select a range.
F5 (GOTO)	Move the cell pointer to a range, named range, sheet, chart, map, drawing, query table, version, OLE embedded object, Notes/FX field, Web table, or datalink table. Equivalent to Edit - Go To and CTRL+G.
F6 (PANE)	Move the cell pointer clockwise to the next pane of the active window.
F7 (QUERY)	Perform a query on the selected query table.
F8	Repeat the last Range - Analyze - What-if Table command.
F9 (CALC)	In Ready mode, recalculate formulas. Replace the formula with its current value when entering or editing a formula.
F10 (MENU)	Activate the menu bar.
ALT+F1 (COMPOSE)	Enter characters in cells that you cannot enter directly from the keyboard. For example, to enter the character £ (British pound sterling symbol), press ALT+F1 (COMPOSE) and type L=. You can also use the Windows Character Map to enter these characters, if available.
ALT+F3 (RUN)	Display the Run Scripts & Macros dialog box, showing a list of the macros in the active files. Equivalent to Edit - Scripts & Macros - Run.
ALT+F4	Close the 1-2-3 window and any active dialog boxes or InfoBox. 1-2-3 asks if

	you want to save any unsaved workbooks. Equivalent to File - Exit.
	Close the Help window or a dialog box.
CTRL+F2	Display the Check Spelling dialog box.
	Equivalent to Edit - Check Spelling.
CTRL+F4	Close the active window if dialog boxes and the InfoBox are closed. 1-2-3 asks if you want to save any unsaved workbooks.
	Equivalent to File - Close.
CTRL+F6	Display the next workbook window, when more than one workbook is open.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;','0)} [See related topics](#)

Help keys

You can use these keys in 1-2-3 Help.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To
ALT+F4 ESC	Close the Help window.
ALT+SPACEBAR	Open the <u>Control menu</u> for the Help window.
CTRL+C	Copy text of a Help topic onto the <u>Clipboard</u> so you can paste it into a workbook or another Windows application.
CTRL+HOME CTRL+END HOME END	Scroll to the beginning or the end of the Help topic.
PG UP PG DN	Scroll up or down one screen in the Help topic.
↓	Scroll up or down one line at a time in the Help topic.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_EDITING_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_LEARN123_HELP_OVER;','0))} See related topics

InfoBox keys

Use these keys to move around and select options in the InfoBox, and to close the InfoBox.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To
ALT+F4	Complete all commands and property changes and close the InfoBox.
ALT+SPACEBAR	Open the <u>C</u> ontrol <u>m</u> enu for the InfoBox. The Control menu contains commands to move, collapse, restore, close, and get help on the InfoBox.
SHIFT+TAB	Move backwards to the previous option, bottom to top, right to left.
TAB	Move forward to the next option, from left to right and top to bottom.

```
{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_O  
VER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_  
OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STY  
LE_KEYS_OVER;H_EDITING_KEYS_OVER;H_HELP_KEYS_OVER;H_USING_THE_INFOBOX_STEPS';,0)}  
See related topics
```


Keyboard shortcuts

Use these keys to execute commands.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To	Equivalent to
ALT+ENTER	Open the InfoBox for the selected object.	<object> - <object> Properties
ALT+F3	Open the Run Scripts & Macros dialog box.	Edit - Scripts & Macros - Run
CTRL+ a letter	Run a macro.	Edit - Scripts & Macros - Run
CTRL+C CTRL+INS	Copy selected data and related styles to the <u>Clipboard</u> .	Edit - Copy
CTRL+F	Display the Find & Replace dialog box.	Edit - Find & Replace
CTRL+GRAY PLUS	Display the Insert dialog box. Insert a row or column without displaying the dialog box when a row or column is selected.	Range - Insert
CTRL+GRAY MINUS	Display the Delete dialog box. Delete a row or column without displaying the dialog box when a row or column is selected.	Range - Delete
CTRL+G	Display the Go To dialog box.	Edit - Go To
CTRL+O	Display the Open dialog box.	File - Open
CTRL+P	Display the Print dialog box.	File - Print
CTRL+S	Save the current file.	File - Save
CTRL+V SHIFT+INS	Paste data and related styles from the Clipboard.	Edit - Paste
CTRL+X SHIFT+DEL SHIFT+DELETE	Cut selected data and related styles to the Clipboard.	Edit - Cut
CTRL+Z	Reverse the effect of the most recently executed command or action that you can undo.	Edit - Undo
DELETE DEL CTRL+DELETE CTRL+DEL	Delete the contents of the selected cells, or delete the selected graphic objects, without using the Clipboard.	Edit - Clear
ENTER	Paste the data and related styles from the Clipboard when you select a location and	Edit - Paste

	press ENTER immediately after choosing Edit - Cut or Edit - Copy.	
	Activate the selected OLE embedded object.	
ESC	End the function in progress, or cancel a drag operation.	Cancel Close
	Deactivate a selected OLE embedded object. (For some embedded objects, ESC might have a different function. In these cases, use SHIFT+ESC instead.)	

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_WAYS_TO_PERFORM_TASKS_OVER;',0
)} [See related topics](#)

Pointer-movement keys

Use these keys to move the cell pointer around the sheet.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys. Key names separated by a space indicate that you press the first key and release it, and then press the second key and release it.

Press	To
↓	Move the cell pointer up or down one row.
←	Move the cell pointer left or right one column.
→	
CTRL+← CTRL+→	Move the cell pointer left or right the number of columns currently visible in the window.
ENTER	Move the cell pointer down one row or leave it in the current cell, depending on the setting in File - User Setup - 1-2-3 Preferences (Classic Keys tab).
END HOME	Move the cell pointer to the lower right corner of the sheet's <u>active area</u> .
END ← END →	Move the cell pointer left or right in the current row to the next cell that contains data and is next to a <u>blank cell</u> .
END END ↓	Move the cell pointer up or down in the current column to the next cell that contains data and is next to a blank cell.
HOME	Move the cell pointer to cell A1 in the current sheet.
	Move the cell pointer to the top left cell in the sheet if you hide A1 or freeze it with View - Freeze Titles.
PG UP PG DN	Move the cell pointer up or down the number of rows currently visible in the window.
SHIFT+ENTER	Move the cell pointer up one row or leave it in the current cell, depending on the setting in File - User Setup - 1-2-3 Preferences (Classic Keys tab).
TAB SHIFT+TAB	Move the cell pointer right or left one column or one screen, depending on the setting in File - User Setup - 1-2-3 Preferences (Classic Keys tab).

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;';0)} [See related topics](#)

Script editing and debugging keys

Use these keys when you are using the Script Editor or Script Debugger.

Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Note F2, F3, F4, F5, F6, F8, and F9 perform different actions when you are working with ranges and graphic objects. For more information about these keys, see [Function keys](#).

Press	To	Equivalent to
F2	Compile the script module for the specified object.	Script - Check Scripts
F3	Create a subroutine in the Script Editor.	Create - Sub
F4	Activate the Script or Debugger Browser.	View - Browser
F5	Run the current subroutine.	Script - Run Current Sub
	Continue to debug a script.	Debug - Continue Execution
F6	Switch panes.	View - Switch Panes
F8	Execute the current line.	Debug - Step
F9	Set or clear a breakpoint in the selected line(s).	Script - Set/Clear Breakpoint Debug - Set/Clear Breakpoint
CTRL+H	Find the next instance of the text specified in the Find & Replace dialog box.	Edit - Find Next
CTRL+F8	Complete current procedure, then stop.	Debug - Step Exit
CTRL+PG UP CTRL+PG DN	Display the previous or next script.	View - Previous Script View - Next Script
SHIFT+F2	Compile the script module for all scripted objects in the specified document.	Script - Check All Scripts
SHIFT+F3	Create a new function.	Create - Function
SHIFT+F5	Stop executing the script.	Debug - Stop Execution
SHIFT+F8	Execute the next procedure without stopping inside called procedures.	Debug - Step Over
SHIFT+F9	Enable or disable a breakpoint.	Script - Enable/Disable Breakpoint Debug - Enable/Disable Breakpoint
SPACEBAR CTRL+SPACEBAR	Execute the next procedure when debugging a macro.	Debug - Step

```
{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_O  
VER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_  
NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;  
H_INFOBOX_KEYS_OVER;H_LOTUSSCRIPT_INDEX_TOPIC_OVER;','0')} See related topics
```

Selection keys

You can use these keys to select or resize a range or collection, or to move the cell pointer within a selected range.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Keys to select cells

Press	To
CTRL+SHIFT+HOME	Select all cells from the current cell to cell A:A1.
CTRL+SHIFT+← CTRL+SHIFT+→	Select cells from the current cell left or right to the last column currently visible.
SHIFT+HOME	Select all cells from the current cell to A1.
F4	Anchor the range. Use pointer-movement keys to extend the range.

Keys to resize the current selection

Press	To
CTRL+SHIFT+PG UP CTRL+SHIFT+PG DN	Extend the selection to the next or previous sheet.
SHIFT+ SHIFT+↓	Resize the selection up or down one row.
SHIFT+← SHIFT+→	Resize the selection left or right one column.
SHIFT+PG UP SHIFT+PG DN	Resize the selection up or down the number of rows currently visible.

Keys to move within the current selection

Press	To
ENTER	Move the cell pointer through the range, top to bottom, left to right. When the cell pointer reaches the bottom right cell in the range, it returns to the top left cell in the range, or moves to the top left cell in the next range in the collection.
CTRL+ENTER CTRL+SHIFT+ENTER	Move the cell pointer to the first cell of the next or previous range of a collection, respectively.
SHIFT+ENTER	Move the cell pointer through the range, bottom to top, right to left. When the cell pointer reaches the top left cell in the range, it returns to the bottom right cell in the range, or moves to the bottom right cell in the next range in the collection.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_SELECTING_SHEET_AREAS_OVER;H_SELECTING_OBJECTS_OVER;',0)} [See related topics](#)

Sheet navigation keys

Use these keys to move the cell pointer between sheets in the current workbook.

Note In key combinations, when the key names are separated by a plus sign (+), hold down the first key, press the second key, and then release both keys. When the key names are separated by a space, press the first key and release it, and then press the second key and release it.

Press	To
CTRL+HOME	Move the cell pointer to cell A:A1 in the current workbook. Move the cell pointer to the top left cell in the first sheet of the current workbook if you hide A:A1 or freeze it with View - Titles.
CTRL+PG UP CTRL+PG DN	Move the cell pointer to the last active cell in the previous or next sheet.
END CTRL+HOME	Move the cell pointer to the bottom right corner of the <u>active area</u> in the last nonblank sheet in the current workbook.
END CTRL+PG UP END CTRL+PG DN	Move backward to the last sheet or forward to the next sheet that contains data in the cell corresponding to the current cell and is next to a <u>blank cell</u> . Move to the corresponding cell in the first or last sheet, respectively, if all cells are blank.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_POINTERMovement_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_SHEETS_OVER;','0)} [See related topics](#)

Special keys

These keys perform special functions, such as providing access to other open applications.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To
ALT	Activate the menu bar. You can then choose a menu command by pressing the underlined letter of the command name. Perform special operations when used in combination with the function keys.
ALT+ESC	Make the next application window active.
ALT+ - (hyphen)	Open the <u>Control menu</u> for the active window.
ALT+ number keypad	Enter an extended character when you press ALT+ a 3-digit number on the keypad. For example, to enter the character Ñ, press ALT+165. You can also use the Windows Character Map to enter these characters, when available.
ALT+SHIFT+ESC ALT+SHIFT+TAB	Make the previous open application window active.
ALT+SPACEBAR	Open the Control menu for the 1-2-3 window, the Help window, dialog boxes, and InfoBox.
ESC	Cancel a dialog box without completing the command. Cancel the current entry in the current cell or the <u>contents box</u> . Return to the previous menu. Close the Help window.

{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_O
VER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;
H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_STYLE_
KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_INFOBOX_KEYS_OVER;','0)) See related topics

Style keys

These keys change the styles applied to data in a range.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys.

Press	To
CTRL+B	Change the data in the current selection to bold. Remove the bold if data is already bold.
CTRL+E	Center data in cells.
CTRL+I	Italicize data in the current selection. Remove the italics if data is already italics.
CTRL+L	Align data with the left edge of the cells.
CTRL+N	Remove bold, italics, and underlines from data in the current selection.
CTRL+R	Align data with the right edge of the cells.
CTRL+U	Underline data in the current selection. Remove the underline if data is already underlined.

{button ,AL(`H_DIALOG_BOX_KEYS_OVER;H_WORKBOOK_NAVIGATION_KEYS_OVER;H_FUNCTION_KEYS_O
VER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;
H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIA
L_KEYS_OVER;H_EDITING_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_STYLING_A_SHEET_OVER;7,0)} See
related topics

Workbook navigation keys

Use these keys to move between active workbooks.

The order in which the cell pointer moves between active workbooks, expressed in the terms first, last, next, and previous in the following definitions, depends on which workbook is active when you open a workbook, and the order in which you open the workbooks.

Note Key names separated by a plus sign (+) indicate that you hold down the first key, press the second key, and then release both keys. Key names separated by a space indicate that you press the first key and release it, and then press the second key and release it.

Press	To
CTRL+END HOME CTRL+END END	Switch to the first or last workbook window opened.
CTRL+F6 CTRL+TAB ALT+ESC	Switch to the next workbook window.
CTRL+PG UP CTRL+PG DN	Move the cell pointer to the cell you last highlighted in the next or previous sheet of the workbook.
CTRL+SHIFT+F6 CTRL+SHIFT+TAB	Switch to the previous workbook window.

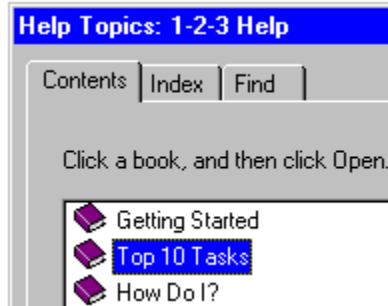
{button ,AL('H_DIALOG_BOX_KEYS_OVER;H_EDITING_KEYS_OVER;H_FUNCTION_KEYS_OVER;H_HELP_KEYS_OVER;H_POINTERMOVEMENT_KEYS_OVER;H_SCRIPT_AND_MACRO_KEYS_OVER;H_SELECTION_KEYS_OVER;H_SHEET_NAVIGATION_KEYS_OVER;H_SHORTCUT_KEYS_OVER;H_SPECIAL_KEYS_OVER;H_STYLE_KEYS_OVER;H_INFOBOX_KEYS_OVER;H_SHEETS_OVER;';0)} See related topics

Learning 1-2-3

For many tasks in 1-2-3, you won't need any help. Simply reading the menus, clicking buttons, and responding to instructions in dialog boxes and the [InfoBox](#) will enable you to complete your work successfully.

When you do need help, 1-2-3 provides the following resources:

- Ask the Expert lets you ask a task-oriented question in your own words and then displays a list of possible answers.
See [Using the Expert to get help](#).
- Help includes overviews, procedures, examples, and reference topics on 1-2-3 features.
See [Getting Help with 1-2-3](#)
- Help Contents contains information on the top 10 tasks in 1-2-3.



- QuickDemos in Help show you how to perform some common 1-2-3 tasks.
See [Using QuickDemos](#).
- "Did you know...?" is a Help topic that lists useful features and tips.
See [Did you know...?](#).
- The printed documentation highlights new 1-2-3 features.

{button ,AL('H_LEARN123_PRINTING_HELP_STEPS;H_LEARN123_LATE_BREAKING_NEWS_ABOUT_123_OVER;H_LEARN123_EXAMPLES_IN_HELP_OVER;H_UNDOING_A_COMMAND_STEPS;H_CANCELING_A_COMMAND_STEPS;H_WAYS_TO_PERFORM_TASKS_OVER;H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS',0)} [See related topics](#)

Using QuickDemos

Each of the Help topics listed below contains a QuickDemo. When you run a QuickDemo, 1-2-3 opens a sample file and shows you how to perform a particular task, using the data in the sample file. Most QuickDemos step you through a basic procedure; some QuickDemos introduce you to more complex tasks and concepts.

At the end of the QuickDemo, the sample file closes and you return to your workbook at the point you left off, with the Help window open, so you can perform the steps yourself.

To start a QuickDemo, just click the icon shown below whenever you see it in a Help topic.



QuickDemos in 1-2-3 Help

You can see QuickDemos of the tasks listed below.

Using the InfoBox

[Using the InfoBox](#)

Entering, editing, and calculating data

[Filling a range by dragging](#)

[Filling a range with dates](#)

[Deleting data by dragging](#)

[Creating a cell comment](#)

[Summing a range automatically](#)

Copying and moving data

[Copying down to fill a range](#)

[Copying right to fill a range](#)

[Moving a sheet using drag and drop](#)

Naming sheets and ranges

[Naming a sheet](#)

[Naming a range](#)

[Naming a range using adjacent labels](#)

Changing columns and rows

[Sizing columns](#)

[Fitting the widest column entry](#)

[Hiding columns](#)

[Sizing rows](#)

[Freezing columns and rows as titles](#)

Ordering and outlining data

[Sorting data](#)

[Outlining data in 1-2-3](#)

[Demoting rows and columns to create an outline](#)

[Collapsing an outline to show less detail](#)

[Expanding an outline to show more detail](#)

Working with versions and version groups

[Creating a version](#)

[Displaying a version](#)

[Creating a version group](#)

Working with graphic objects

[Creating a text block](#)

[Creating a map](#)

Working with data queries

[Working with 1-2-3 database tables](#)

Changing print properties

[Adding headers and footers](#)

[Changing print margins](#)

{button ,AL('H_LEARN123_OVER;H_LEARN123_HELP_OVER;H_LEARN123_EXAMPLES_IN_HELP_OVER',0)}
[See related topics](#)

Getting Help with 1-2-3

What's in Help?

Help contains overviews, procedures, technical details, examples, and QuickDemos that can teach you about using 1-2-3. Help also contains reference information on all @functions and LotusScript commands.

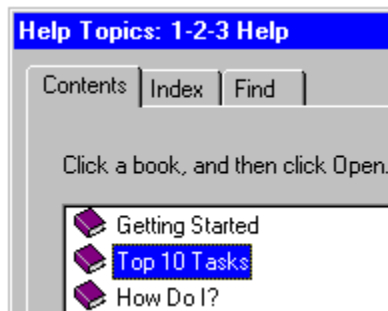
When you find the information you need in Help, you can print it or you can leave the Help window open when you work. The Help window stays on top of the 1-2-3 window so you can follow a procedure as you perform the task in 1-2-3.

If you don't know where to start

From the Help menu, choose Help Topics. Initially, 1-2-3 displays a dialog box that lets you choose the type of Help you want:

- Help topics lets you browse the Help Contents or Index to find information.
- The Expert lets you ask a question using your own words, and then select the topic you want from a list of possible answers.

After you click Help Topics, you see a dialog box with three tabs.



- Click Contents to see Help topics organized by books. Double-click a book to see the list of topics in each book. Double-click a topic to read it.
- Click Index to display a list of index entries. Each entry is associated with one or more Help topics. Type the first letters of the word you are looking for or scroll down the index to see all of the entries. Double-click an entry to display Help.
- Click Find to do a full-text search of Help topics. The first time you use Find, Windows creates a file that contains all of the words in Help. Using Find, you can locate any word or phrase contained in a Help topic.

Getting Help on your current task

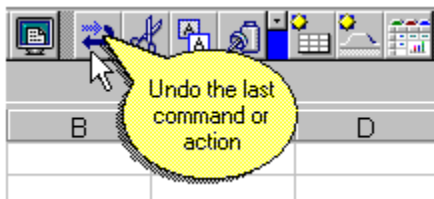
- Using Ask the Expert -- To ask a question in your own words, select the object you are working on, and then click the Expert button in the status bar.



- Using a dialog box -- Click Help or press F1 (HELP).
- Using the InfoBox -- Click the Help question mark button or press F1 (HELP).



- Highlighting a menu command -- Press F1 (HELP) to see a summary of commands on that menu.
- On SmartIcons or tabs in the InfoBox -- Hold the mouse pointer over an icon or tab to display a short description.



- Entering an @function -- In a blank cell, type @ and press F3 (NAME) to display a list of @functions. Highlight an @function and press F1 (HELP).
- Working in the Script Editor or Script Debugger -- Use the Help menu.

Navigating within Help

When the Help window is open, you can move from one Help topic to another to display additional information.

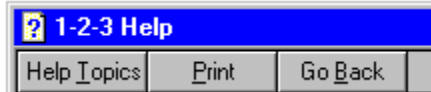
- Click green text with a dotted underline to view a definition in a pop-up window.

Pop-up example




- Click green text with a solid underline to jump to another Help topic.

Jump example

- Click the Go Back button to display previously read Help topics.

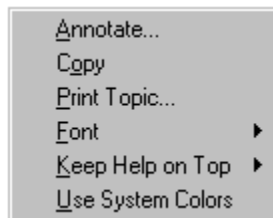


- The following buttons appear at the end of many Help topics. Click a button to see additional information.

-  See details
-  See example
-  See related topics

Windows Help commands

Windows includes some additional Help features. Click the right mouse button anywhere in a Help window to display the following Help commands.



Lotus Customer Support services

If you aren't able to find the answer to your question in Help, the printed documentation, or the README file, please contact the support service that is most appropriate to your needs.

For information on the services offered, see Support in the Help Index.

```
{button ,AL('H_GETTING_HELP_ON_AN_ATFUNCTION_STEPS;H_LEARN123_CONVENTIONS_OVER;H_LEARN123_PRINTING_HELP_STEPS;H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS;H_MACRO_KEYWORDS_DIALOG_BOX_CS;H_LEARN123_OVER;H_LEARN123_LATE_BREAKING_NEWS_ABOUT_123_OVER;H_LEARN123_EXAMPLES_IN_HELP_OVER;H_123_LSCOMMON_USING_LOTUSSCRIPT_HELP_OVER;H_123_USING_EXPERT_STEPS;H_HELP_KEYS_OVER',0)} See related topics
```

Printing Help information

You can print one topic or a book of Help topics:

- To print the topic you are reading, click Print.
- To print all the topics in a book from Help Contents, select the book and click Print.
- To print a pop-up in Help, right-click the pop-up window and choose Print Topic.

{button ,AL('H_LEARN123_HELP_OVER;H_LEARN123_OVER',0)} [See related topics](#)

Conventions used in Help

- Some commands appear in hyphenated form in Help procedures.
For example, when you see File - User Setup - 1-2-3 Preferences in a procedure, you should choose File from the main menu, then choose User Setup and then 1-2-3 Preferences from the cascade menu.

- SmartIcons in a procedure indicate that you can either use the command or click the icon in 1-2-3.
- Click green text with a dotted underline to view a definition in a pop-up window.

Pop-up example

- Click green text with a solid underline to jump to another Help topic.

Jump example


- You see bold text in the following instances:


Caution -- Introduces information essential to the safety of your data and software.


Note -- Introduces additional technical information about a command or procedure.

Tip -- Provides additional useful information.

- Function keys appear in all capitals and are followed by the 1-2-3 key name. For example, F1 (HELP).
- Key names separated by a + (plus sign) indicate that you hold down the first key, press the second key, and then release both keys. For example, CTRL+C.
- Key names separated by a space indicate that you press the first key and release it before pressing the second key. For example, END HOME.
- The following buttons appear at the end of many Help topics. Click a button to see additional information.

 See details

 See example

 See related topics

- [] (brackets) enclose optional arguments in @functions and macro commands; for example, [*password*]. Arguments appear in italics.

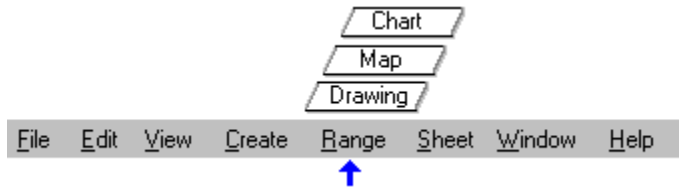
Did you know...?

This list of tips can help you work more efficiently in 1-2-3.

Working in 1-2-3

- Commands on the menu change, depending on what you have selected.

For example, when you select a cell, 1-2-3 displays Range on the menu. If you select a rectangle or an arrow, Drawing replaces Range on the menu. When you select a Map or a Chart, you see menus for those objects.



- You can undo many commands in 1-2-3 by using Edit - Undo.



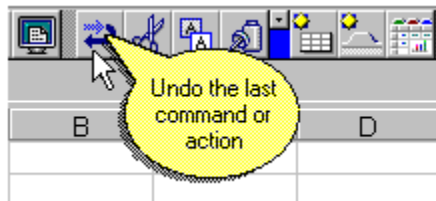
- Press ESC to:
 - Cancel a dialog box without completing the command
 - Cancel the current entry in the current cell or the edit line
 - Return to a previous menu
 - Close the Help window or the Expert window
- Click the Expert button in the status bar to ask the Expert how to perform different tasks in 1-2-3.



- You can drag the pop-up Expert window off the status bar and leave it open while you work in 1-2-3.
- Press F1 (HELP) to display the Help window at any time.
- You can leave the Help window open as you complete your work.

Using the mouse

- SmartIcons are buttons that represent mouse shortcuts for 1-2-3 actions and commands. If you see an icon in a Help topic that isn't displayed in your set of SmartIcons, you can add the icon using File - User Setup - SmartIcons Setup.
- To display a description of an icon or a tab in the InfoBox, hold the mouse pointer over the icon or tab.



- The mouse pointer changes shape, depending on the task.
- You can click the right mouse button over an object or while editing a cell to display the shortcut menu.

Working with windows and files

- When you create a new workbook, you can use a SmartMaster template to get a head start on your work.
- You can move a window by dragging the title bar.
- If you have more than one file open, you can use the Window command to navigate between the open files.

Using the InfoBox to change properties

- Remember that you must select any cell, range, or object before you can change its properties.
- To open the InfoBox for a cell or range, use Range - Range Properties. To open the InfoBox for most other objects, double-click the object.
- As you select options in the InfoBox, changes appear immediately in 1-2-3.
- You can leave the InfoBox open as you work. The InfoBox stays on top of your sheet as you select other objects.

- To collapse the InfoBox and display only its title bar, double-click the title bar. Double-click the title bar again to restore the InfoBox to its full size.

```
{button ,AL('H_LEARN123_OVER;H_UNDOING_A_COMMAND_STEPS;H_CANCELING_A_COMMAND_STEPS;H  
_THE_INFOBOX_OVER;H_123_ASK_THE_EXPERT_OVER;H_LEARN123_HELP_OVER',0)} See related topics
```

Late breaking news about 1-2-3

The README.WRI file contains notes for upgraders and network administrators, and information received after the Help and the documentation were completed. The Install program copies the README.WRI file to your 1-2-3 directory.

To open the README.WRI file:

1. Click the Start button.
2. Click Programs.
3. Click Lotus SmartSuite (or the folder where you installed 1-2-3).
4. Click Lotus User Assistance.
5. Double-click 1-2-3 Product Updates.

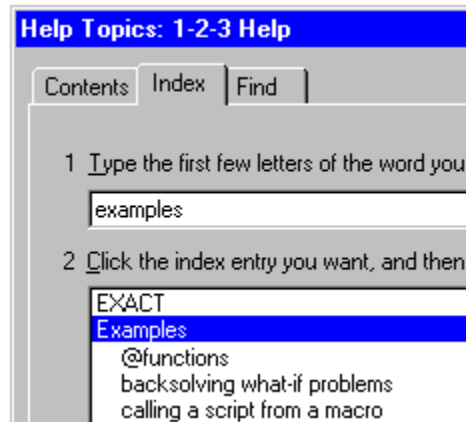
Finding examples in 1-2-3 Help

There are three types of examples in 1-2-3 Help:

- Examples that illustrate 1-2-3 features
- @Function examples
- LotusScript examples

To find examples in Help:

1. Click the Help Index tab.
2. Type example.



3. Under Examples in the list, double-click the example you want to see.

Pop-up example

This is a definition in a pop-up window.

To close this window, click anywhere.

Jump example

You just jumped to this Help topic.

To return to the topic you were reading, click the Go Back button.

Overview: Sharing data using OLE

Object Linking and Embedding (OLE) lets you share data (also called objects) across applications. You can either link or embed objects.

- A link is a connection through which data created and stored in a source file is displayed in another file. Linked data can automatically update to reflect changes made in the source file.



- An embedded object is data created in one application (the server) but stored in a file in another application (the container). Once embedded, the data becomes part of the file in which it is stored. Embedded data is not linked to data outside of the container's file and only changes if you edit it.



When should you use links?

Use links when:

- You need to share data between applications.
- You expect the shared data to change.
- You need to update the shared data when the original data changes.

For example, suppose you need to use data from an Approach file in a 1-2-3 workbook and the data changes weekly. You can create automatic links in the 1-2-3 workbook to the data in the Approach file so that whenever you open the 1-2-3 workbook, it automatically displays the latest Approach data.

For more information, see [What is an OLE link?](#)

Note You cannot create an OLE link between two 1-2-3 workbooks, but you can link workbooks by using Edit - Paste Link or using formulas. See [Referring to other workbook files in formulas](#).

When should you use embedded objects?

Use embedded objects when:

- You do not need the data to be linked to a source file.
- You want to store data from another application within one file.
- You may want to edit the data.

For example, if you create a diagram in Freelance Graphics, you can embed it in a 1-2-3 workbook. When you want to edit the diagram, you can double-click it.

For more information, see [What is an embedded object?](#)

{button ,AL('H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_STEPS;H_CREATING_AN_EMBEDDED_OBJECT_STEPS','0)} [See related topics](#)

What is an OLE link?

A link is a connection through which data created and stored in a source file is displayed in another file. Linked data can automatically update to reflect changes made to the data in the source file.



You can create links to a wide range of objects, including text, drawings, and charts, as well as Notes documents, views, or databases.

For example, suppose you want to use text from a Word Pro file in a 1-2-3 file and the text changes weekly. You can create automatic links to the Word Pro file so that whenever you open the 1-2-3 file, it automatically displays the latest text from the Word Pro file.

What does an OLE link look like?

In 1-2-3, linked data can appear in two ways:

- As data in a graphic object or as an icon indicating the server application -- These objects are displayed on top of the sheet.
- As a datalink table -- Data in a datalink table is entered directly in the sheet.

The link's appearance can vary, depending on how you created the link and on the server application's OLE support.

How do you create an OLE link?

1-2-3 provides several ways to create OLE links. You choose a method based on how much you want to control the link process.

- If you copy data to the Clipboard in the other application and then use Edit - Paste Link in 1-2-3, 1-2-3 chooses the link format for you.
Note If the default format of the data on the Clipboard is Text, .WK1, or .WK3, 1-2-3 creates a datalink table in the sheet.
- If you copy data to the Clipboard in the other application and then use Edit - Paste Special in 1-2-3, you can choose the format and appearance of the linked data.
- To create a link to an entire file, use Create - Object and select the file and the link option.
- 1-2-3 also supports dragging to create a link. If the other application supports it, you may be able to drag the selection to or from the application to create a link.

What can you do with an OLE link?

- You can move, copy, or delete linked data just as you would a range or a graphic object.
- You can double-click most links to activate the server application so that you can change the source data.
- You can use Edit - Manage Links to view information about all the links in a workbook, edit, update, and break links. For example, you can edit a link so that it refers to a different piece of data in the source file or change how often you want to update linked data.
- If the data is in a datalink table, you can also format the data directly in the sheet. When 1-2-3 updates the link, the datalink table retains the formatting.

Note To edit linked OLE objects, you must have the server application installed on your computer.

OLE links in files from 1-2-3 97

If you open a 1-2-3 97 file that contains OLE links created with @DATALINK, 1-2-3 retains the links but converts them to datalink tables.

For more information, see

[Working with datalink tables](#)

[Working with 1-2-3 for Windows files](#)

[Working with 1-2-3 for OS/2 files](#)

```
{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_SHARING_DATA_USING_OLE2_OVER;H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_STEPS;H_CREATING_A_LINK_USING_DRAG_AND_DROP_STEPS;H_EDITING_LINKS_STEPS;H_UPDATING_LINKS_STEPS;H_BREAKING_LINKS_STEPS;H_CHANGING_A_LINKS_UPDATE_MODE_STEPS;','0')} See related topics
```

Creating an OLE link in 1-2-3

When you create an OLE link, you can let 1-2-3 choose the link format based on the data on the Clipboard, or you can choose the format yourself. Depending on the type of data you are linking, 1-2-3 will either create a linked object or a datalink table.

1. Open the source file in the other application, select the data you want to link, and copy it to the Clipboard.
2. Open the 1-2-3 workbook and select a location where you want to put the linked data.
 - If you select one cell, 1-2-3 uses that cell as a starting point to enter the linked data.
 - If you select a range, 1-2-3 limits the linked data to that range.

Caution If the format of the data on the Clipboard is Text, .WK1, or .WK3, 1-2-3 will enter linked data in the sheet as a datalink table. To avoid writing over existing data, select a cell or range in a blank area of the sheet.

3. Do one of the following:
 - To create a link quickly and let 1-2-3 choose the link format, choose Edit - Paste Link.
1-2-3 selects an appropriate format, creates the link, and displays the linked data.
 - To choose the format yourself, continue to step 4.
4. From the Edit menu, choose Paste Special.
5. Select "Paste link to source."
6. Select a format from the "As" box.

Note To display the link as an icon representing the server application, select "Display as icon." To select a different icon, click Change Icon, select another icon, and click OK.

7. Click OK.

1-2-3 creates the link in the workbook using the format you selected. If the format of the data on the Clipboard is Text, .WK1, or .WK3, 1-2-3 creates a datalink table and enters the linked data directly in the sheet.

{button ,AL('H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_DETAILS',1)} [See details](#)

{button ,AL('H_LINKS_OVER;H_CREATING_A_LINK_USING_DRAG_AND_DROP_STEPS;H_BREAKING_LINKS_STEPS;H_UPDATING_LINKS_STEPS;H_CREATING_A_LINKED_OBJECT_FROM_A_FILE_STEPS;H_123_WORKING_WITH_DATALINK_TABLES_OVER',0)} [See related topics](#)

Details: Creating an OLE link in 1-2-3

Creating a Notes link

You can create a link from 1-2-3 to a Notes 4.1 (or higher) document, view, or database. In Notes, use Edit - Copy As Link. Then, in 1-2-3, choose Edit - Paste Special, select "Paste link to source," and select "Notes Link" as the link type.

Other ways to create a linked object

You can also use Create - Object, and select the "Create an object from a file" and the "Link to file" options to create a link.

Restrictions

- To create a link in 1-2-3, the server application must support OLE linking.
- If Edit - Paste Link is not available, make sure you have saved the file in the server application.
- Most server applications need to be open while creating links using the Clipboard. If you want, you can minimize the application's window to an icon.
- You cannot paste a link when the Clipboard is empty, or when the top left corner of the current selection is in a protected range.
- 1-2-3 cannot create OLE links to itself. That is, you cannot create links to 1-2-3 charts, maps, drawings, or embedded objects. If the Clipboard contains a 1-2-3 chart, map, drawing, or embedded object, the "Paste link to source" option is unavailable.

{button ,AL('H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_STEPS',1)} [Go to procedure](#)

Working with datalink tables

When you create an OLE link from data on the Clipboard that is in Text, .WK1, or .WK3 format, 1-2-3 creates a datalink table in the sheet. Depending on the OLE server, the data may be text, numbers, or both. You can use this data to perform calculations or build formulas.



What can you do with a datalink table?

You can select and format the data in a datalink table.

- To select a datalink table, you can select the table border, select the entire table range, or right-click the border and choose Select Table Range.
- You can format data in a datalink table just like you format other data in the sheet. 1-2-3 will keep the formats when the link is updated.

You can copy and move a datalink table.

- To copy the data and the link with a datalink table, you must select the table border or the entire table range first. Otherwise, you copy only the data.
- You can move a datalink table using drag and drop or Edit - Cut and Edit - Paste.

Sizing a datalink table

When you create a datalink table, 1-2-3 determines the size of the table based on how you selected the range when you created the table.

- If you selected one cell, 1-2-3 sets the table size to "Variable" and enters all the linked data in the sheet.
- If you selected a range larger than one cell, 1-2-3 sets the table size to "Fixed" and enters only the data that will fit in the selected range.

However, you can resize the table at any time using the mouse or the InfoBox. See [Sizing a datalink table](#).

Note When you resize a datalink table, 1-2-3 also updates the link.

Hiding the datalink table border

By default, a datalink table has a border, but you can hide it. When you turn off the border, be aware that the datalink table looks like any other data in the sheet. See [Hiding and showing datalink table borders](#).

Tip To find and select a datalink table when you've hidden the borders, use Edit - Go To and select Datalink.

Updating a datalink table

By default, a datalink table is set to update automatically, but you can specify if you want updates to be automatic or manual. As with other OLE links, you can use Edit - Manage Links to change the update setting. See [Changing a link's update mode](#).

Tip To update the link quickly, right-click the border and choose Update Now.

Cautions

- Do not overlap a datalink table with other data because the other data will be lost.
- Do not create a datalink table in a versioned range. When the link is updated, the datalink table writes over the data in the current version.
- If you combine or extract a range containing a datalink table, 1-2-3 combines or extracts the data but not the link.

Hiding and showing datalink table borders

By default, 1-2-3 displays a border around a datalink table. If you hide the border, be aware that a datalink table without a border looks like any other data in the sheet.

...with borders showing

	Q1	Q2
North	1111	1350
South	1400	1540
East	2300	2500
West	1900	1860

...with borders hidden

	Q1	Q2
North	1111	1350
South	1400	1540
East	2300	2500
West	1900	1860

Tip To find and select a datalink table when you've hidden the border, use Edit - Go To.

Hiding or showing borders for all datalink tables in a workbook

1. From the View menu, choose Set View Preferences.
2. Under Show in workbook, either select "Datalink table borders" to display them, or deselect "Datalink table borders" to hide them.
3. (Optional) To use this setting for all new workbooks, click the button, "Make Default for New Workbooks."
4. Click OK.

Hiding or showing the border for one datalink table

1. Right-click any cell in a datalink table.
2. From the menu, choose Show Table Border or Hide Table Border.

Other ways to hide or show borders for a datalink tables

Select the datalink table, click the right mouse button, and choose the Properties command to open the InfoBox. On the Basics tab, select or deselect "Show border."

{button ,AL('H_123_WORKING_WITH_DATALINK_TABLES_OVER',0)} [See related topics](#)

Sizing a datalink table

Initially, 1-2-3 determines the size of a [datalink table](#) by how you selected the range when you created the table. However, you can resize the table at any time.

When you resize a datalink table, 1-2-3 also updates the link.

Caution Do not overlap a datalink table with other data because the other data will be lost.

Sizing a datalink table by dragging

When you resize a datalink table by dragging, 1-2-3 limits the data it displays to the range you specified and sets the table range to a fixed size.

1. Click the border to select the datalink table.
2. Drag any of the selection [handles](#) on the border to size the table.

Sizing a datalink table using the InfoBox

When you resize a datalink table using the [InfoBox](#), you can also set the table range to be a fixed or variable size.

1. Right-click the datalink table border.
2. From the menu, choose Properties to open the InfoBox.
3. Click the Range tab.



4. In the "Datalink table range" box, specify a range.

Caution To avoid writing over existing data, select a cell or range in a blank area of the sheet.

5. Under "Size of range," select "Variable" or "Fixed."

- Variable -- Shows all the linked data in a datalink table starting at the top left cell of the table range.
- Fixed -- Restricts the size of the datalink table to the range you specified.

6. (Optional) [Move, collapse, or close](#) the InfoBox.

If you selected Variable, 1-2-3 displays all the data in datalink table. If you selected Fixed, 1-2-3 displays data only in the range you selected.

{button ,AL('H_123_SIZING_A_DATALINK_TABLE_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_DATALINK_TABLES_OVER',0)} [See related topics](#)

Details: Sizing a datalink table**Do not overlap different kinds of tables when you size them**

If you move a datalink table on an anchor cell of a Web table or a query table, 1-2-3 displays a message indicating that the link will be broken. If you click OK, 1-2-3 removes the frame and breaks the link to the source.

{button ,AL('H_123_SIZING_A_DATA LINK_TABLE_STEPS',1)} [Go to procedure](#)

Using drag and drop to create an OLE link

You can create an OLE link from 1-2-3 to another application (or vice versa) using drag and drop, provided the other application supports this feature.

1. Tile the 1-2-3 window and the window of the other application so that both are visible.
2. Make the 1-2-3 workbook that contains the original data the active window. Make sure you have named and saved the 1-2-3 file.
3. Select the range in 1-2-3 you want to link. You can include graphic objects in the range.
4. Position the mouse pointer on the border of your selection so that the mouse pointer changes to a hand.



5. Hold down both CTRL and SHIFT, and drag the object to the other application.
6. Release the mouse button when you reach the destination, then release CTRL and SHIFT.

Note To drag and drop from another application into 1-2-3, use this procedure, but select the data in the server application and drag it to 1-2-3. Check the other application's documentation to find out what keys to use while dragging.

{button ,AL('H_CREATING_A_LINK_USING_DRAG_AND_DROP_DETAILS',1)} [See details](#)

{button ,AL('H_LINKS_OVER;H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_CREATING_A_LINKED_OBJECT_FROM_A_FILE_STEPS;H_UPDATING_LINKS_STEPS;H_BREAKING_LINKS_STEPS;',0)} [See related topics](#)

Details: Using drag and drop to create an OLE link

Troubleshooting

If you have trouble using drag and drop to create a link:

- Check that the source file is named and saved. In many cases, the server application's file must also be named and saved.
- Copy the data to the Clipboard, choose Edit - Paste Special, and select "Paste link to source."

Controlling the link format

When you create a link using drag and drop, the container application chooses the link format. If you want more control over the type of link, copy the data and use Edit - Paste Special.

Using drag and drop between 1-2-3 workbooks

If you drag and drop data between 1-2-3 workbook files, 1-2-3 creates a file link, not an OLE link. A file link is a formula that contains a reference to the range in the source file. See [Referring to other workbook files in formulas.](#)

{button ,AL('H_CREATING_A_LINK_USING_DRAG_AND_DROP_STEPS',1)} [Go to procedure](#)

Creating a linked object from a file

You can create an OLE link to an entire file. The linked object updates when the source file changes.

1. From the Create menu, choose Object.



2. Under Create new, select "Object from a file."
3. Enter the path and file name, or click Browse to select from the available directories, and then click Open.
4. Select "Link to file."
Note To display the object as an icon, select "Display as icon." To select a different icon, click Change Icon, select another icon, and click OK.
5. Click OK.
6. Click the sheet where you want the top left corner of the object to appear.
The server application determines the size and position of the object.

{button ,AL('H_CREATING_A_LINKED_OBJECT_FROM_A_FILE_DETAILS',1)} See details

{button ,AL('H_LINKS_OVER;H_LINKING_FROM_123_TO_ANOTHER_APPLICATION_STEPS;H_CREATING_A_LINK_USING_DRAG_AND_DROP_STEPS;H_UPDATING_LINKS_STEPS;H_BREAKING_LINKS_STEPS','0')} See related topics

Details: Creating a linked object from a file

1-2-3 cannot create OLE links to itself. That is, you cannot create links to 1-2-3 charts, maps, drawings, or embedded objects.

Editing the source file

You can double-click a linked object to edit the source file. Linked objects are always edited out of place.

{button ,AL('H_CREATING_A_LINKED_OBJECT_FROM_A_FILE_STEPS',1)} Go to procedure

Breaking links

You can break a link if you no longer want the linked data connected to its source. A broken link no longer updates the data.

1. From the Edit menu, choose Manage Links.



2. Select the type of link from the "Link type" list.
3. Select the links to break.
4. Click Break Link.
5. Confirm your choice, and then click Done.

If you break a link to an object, in most cases the linked object becomes a picture.

If you break a link to a datalink table, 1-2-3 removes the border and leaves just the data.

If you break a DDE link, 1-2-3 removes the @DATA LINK formula and leaves just the data.

{button ,AL('H_LINKS_OVER;H_UPDATING_LINKS_STEPS;H_CHANGING_A_LINKS_UPDATE_MODE_STEPS;H_EDITING_LINKS_STEPS;',0)} [See related topics](#)

Changing a link's update mode

When you create a DDE or OLE [link](#), 1-2-3 sets the update mode to automatic. Automatic update mode ensures that your data is always current.

Note You may want to use manual update mode to improve system performance when you have many links in a file or when the links contain a large amount of data. Manual update mode lets you update the links when you want rather than every time you make a change.

To change a link's update mode

1. From the Edit menu, choose Manage Links.



2. Select the type of link from the "Link type" list.
3. Select the link.
4. Select "Automatic" or "Manual."
5. Click Done.

{button ,AL('H_CHANGING_A_LINKS_UPDATE_MODE_DETAILS',1)} [See details](#)

{button ,AL('H_BREAKING_LINKS_STEPS;H_EDITING_LINKS_STEPS;H_UPDATING_LINKS_STEPS;H_123_DDE_OVER;H_SHARING_DATA_USING_OLE2_OVER;',0)} [See related topics](#)

Details: Changing a link's update mode

Automatic updating

When the update mode for a link is set to automatic, 1-2-3 updates links as follows:

- If the source file and the file containing the links are both open, automatic links are updated whenever the data in the source file changes.
- If the source file is not open when you open the file containing the link, automatic OLE links are updated only if the 1-2-3 workbook option, "Update links when opening workbooks," is selected in the 1-2-3 Preferences dialog box (General tab). This option is off by default but you can change it by choosing File - User Setup, and then 1-2-3 Preferences.

Note DDE only updates links in a file if the source file is open or if AutoStartTimeout is set and 1-2-3 is able to launch the source application and load the file. For more information, see [1-2-3 as a DDE Client](#).

Manual updating

When the update mode for a link is set to manual:

- 1-2-3 updates manual links only when you choose Edit - Manage Links and click Update Now or Update All Now.
- 1-2-3 does not update manual links when you open the file that contains links, even if the 1-2-3 workbook option for updating links is selected.

{button ,AL('H_CHANGING_A_LINKS_UPDATE_MODE_STEPS',1)} [Go to procedure](#)

Editing links

When you edit a link, you can either edit the source data or link to a different source file.

Editing the source data for an OLE link

To edit the source data for an OLE link in 1-2-3, you must have the server application installed on your computer. In 1-2-3, OLE links are always edited out of place.

Note You cannot open the source file for a DDE link in this way.

1. From the Edit menu, choose Manage Links.



2. Select OLE or Data from the "Link type" list.

3. Select the link.

4. Click Open Source.

1-2-3 opens the source file in the server application.

5. Make changes in the source file.

When you have finished editing, you can save and close the source file and exit the server application.

Linking to a different source file

With OLE and DDE links, you can link to a different source.

1. From the Edit menu, choose Manage Links.



2. Select OLE, Data, or DDE from the "Link type" list.

3. Select the link.

4. Click Edit Link and specify a different path, file name, or item.

5. Click OK to return to the Manage Links dialog box.

When you link to a different source file, 1-2-3 creates a new link and sets the update mode to automatic.

{button ,AL('H_EDITING_LINKS_DETAILS',1)} [See details](#)

{button ,AL('H_LINKS_OVER;H_BREAKING_LINKS_STEPS;H_CHANGING_A_LINKS_UPDATE_MODE_STEPS;H_UPDATING_LINKS_STEPS;',0)} [See related topics](#)

Details: Editing links

Editing DDE links

With DDE links, you can edit the arguments of an @DATALINK formula. The syntax is as follows:

@DATALINK (app-name;topic-name;item-name;[format];[max-rows];[max-cols];[max-sheets])

For more information, see [@DATALINK](#).

{button ,AL('H_EDITING_LINKS_STEPS',1)} [Go to procedure](#)

Updating links

You can update OLE, DDE, and file links.

Note If the source file for the link has moved, you cannot update the link until you identify the source's new location. Use Edit - Manage Links and click Edit Link to modify the link so it matches the source's new location.

1. If you are updating DDE links, open the source file.
Note You do not need to open the source file to update OLE links.
2. From the Edit menu, choose Manage Links.
3. Select the type of link from the "Link type" list.
4. If you selected OLE, Data, or DDE links, do one of the following:
 - To update some links, select the links and click Update Now.
 - To update all links, click Update All Now.
5. If you selected 1-2-3 file links, click Update All Now.
6. Click Done.

{button ,AL('H_UPDATING_LINKS_DETAILS',1)} [See details](#)

{button ,AL('H_LINKS_OVER;H_BREAKING_LINKS_STEPS;H_CHANGING_A_LINKS_UPDATE_MODE_STEPS;H_EDITING_LINKS_STEPS;',0)} [See related topics](#)

Details: Updating links

Updating DDE links

DDE only updates links in a file if the source file is open or if AutoStartTimeout is set and 1-2-3 is able to launch the source application and load the file. For more information, see [1-2-3 as a DDE Client](#).

Recalculating file links

Recalculation settings apply only to formulas that refer to data in active workbooks. These settings do not affect formulas that link to data in workbooks on disk.

Automatically updating file links

1-2-3 automatically updates all file links when you open a workbook that refers to other active workbooks if Recalculation is set to automatic in the workbook that you open. For more information, see [Setting recalculation defaults](#).

{button ,AL('H_UPDATING_LINKS_STEPS',1)} [Go to procedure](#)

Manage Links dialog box

Use this dialog box to edit, update, and break existing links, and to view information about each link.

When you highlight each link, 1-2-3 displays information about the Source, Type, and Update mode. If you highlight a link for a datalink table, 1-2-3 also displays the range address for the datalink table.

Choose a task

Updating links

Editing links

Changing a link's update mode

Breaking links

{button ,AL('H_OBJECT_LINKING_AND_EMBEDDING_OVER;H_SHARING_DATA_USING_OLE2_OVER;H_USIN
G_FORMULAS_OVER;H_123_DDE_OVER;H_DDE_LINKS_OVER;','0')} See related topics

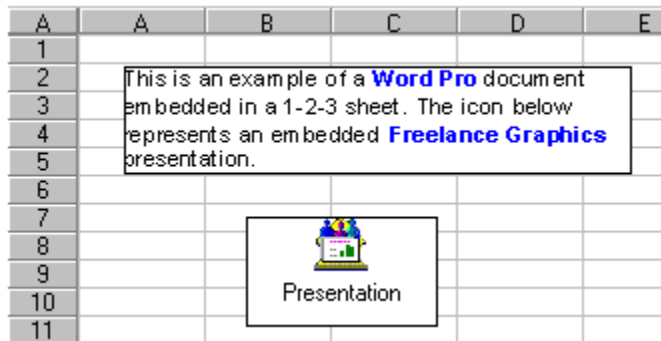
What is an embedded object?

An embedded object is an object created in one application (a server application) but stored in a file in another application (the container application). The embedded object is not linked to another file.

For example, if you want to include text from a Word Pro document in a 1-2-3 workbook, you can embed the Word Pro document in the 1-2-3 workbook. When you need to change the text, you just double-click the embedded Word Pro document.

What does an embedded object look like?

In 1-2-3 an embedded object may look like a graphic object or may look like the icon of the server application, depending on how you created it.



How do you embed an object?

If both applications support OLE, you can embed objects by using Edit - Paste Special or Create - Object.

- Use Edit - Paste Special to embed an object that you either copied or cut from another application.
- Use Create - Object to embed a new object from scratch or embed data from an existing file.

What can you do with embedded objects?

When you select the object, it displays selection handles, and the 1-2-3 menu changes to include a menu for the embedded object.

For example, when you select an embedded Word Pro document, 1-2-3 adds "Document" to the 1-2-3 menu so you can edit it or perform other actions.

- You can copy, cut, move, or delete embedded objects like other graphic objects.
- You can edit embedded objects in one of the following ways:
 - If the server application supports in-place editing, you can double-click the embedded object to edit it right in 1-2-3. The 1-2-3 menu changes to include commands from the server application.
 - If the server application does not support in-place editing, the server application opens when you double-click the object and you edit the object in the server application.

Note To edit embedded OLE objects, you must have the server application installed on your computer.

- You can embed a file from some applications like Freelance Graphics and Screen Cam, and then run a presentation or a movie by double-clicking the embedded file.

```
{button ,AL('H_SHARING_DATA_USING_OLE2_OVER;H_CREATING_AN_EMBEDDED_OBJECT_STEPS;H_EMBEDDING_AN_EXISTING_OBJECT_STEPS;H_EDITING_AN_EMBEDDED_OBJECT_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_DRAGGING_A_RANGE_TO_THE_DESKTOP_STEPS;',0)}  
See related topics
```

Creating an embedded object

You can create an object in one application but embed (store) the object in a 1-2-3 workbook. For example, you can embed a Word Pro document in a 1-2-3 workbook.

To create an embedded object

1. From the Create menu, choose Object.



2. Under Create new, select "Object."
 3. From the "Object type" list, select the type of object that you want to create.
Note To display the object as an icon representing the other application, select "Display as icon." To select a different icon, click Change Icon, select another icon, and click OK.
 4. Click OK.
 5. Click the sheet where you want the top left corner of the object to appear.
 - If the server application supports in-place editing, an object is created and activated, and the server application's menus, icons, and toolbars appear in the 1-2-3 window.
 - If the server application does not support in-place editing, 1-2-3 opens the server application.
 6. Use the server application's menus, icons, and toolbars to edit the object.
 7. When you finish, do one of the following:
 - If you created the object from within 1-2-3, click anywhere in the sheet to deactivate the embedded object.
 - If you created the object in the server application, exit the application to return to 1-2-3.
- 1-2-3 displays the embedded object in the sheet.

{button ,AL('H_CREATING_AN_EMBEDDED_OBJECT_DETAILS',1)} [See details](#)

{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_EMBEDDING_AN_EXISTING_OBJECT_STEPS;H_EDITING_AN_EMBEDDED_OBJECT_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_DRAGGING_A_RANGE_TO_THE_DESKTOP_STEPS;H_SHARING_DATA_USING_OLE2_OVER',0)} [See related topics](#)

Details: Creating an embedded object**Editing an embedded object displayed as an icon**

If you display the embedded object as an icon, you must edit it out of place. See [Editing an embedded object](#) for information.

Placing the embedded object on the sheet

Instead of clicking the sheet to have 1-2-3 place and size the embedded object, you can determine the size and position of the embedded object by dragging a box in the sheet.

{button ,AL('H_CREATING_AN_EMBEDDED_OBJECT_STEPS',1)} [Go to procedure](#)

Using drag and drop to embed an object

You can embed an object from another application into 1-2-3 (and vice versa) provided the other application supports this feature.

1. Open 1-2-3 and the server application and tile the windows so that both are visible.
2. Click the title bar of the server application to make it the active window.
3. Select the data that you want to embed.
4. Position the mouse pointer on the border of your selection.
5. Drag the selection to its destination in 1-2-3.
6. Release the mouse button when you reach the destination.

Notes

- You may need to use CTRL with the mouse to drag and drop data outside the server application.
- To drag and drop from 1-2-3 to another application, use this procedure, but select the data in 1-2-3 and drag it to the other application.
- If you have trouble using drag and drop to embed an object, copy the data to the Clipboard and use Edit - Paste Special.

```
{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_CREATING_AN_EMBEDDED_OBJECT_STEPS;H_EMBEDDING  
_AN_EXISTING_OBJECT_STEPS;H_EDITING_AN_EMBEDDED_OBJECT_STEPS;H_DRAGGING_A_RANGE_  
TO_THE_DESKTOP_STEPS;H_SHARING_DATA_USING_OLE2_OVER',0)} See related topics
```

Creating an embedded object from existing data

There are two ways to embed existing data into a 1-2-3 workbook. Use the first procedure to embed an object that you copied or cut from another application. Use the second to embed an entire file.

Embedding an object using the Clipboard

1. In the server application, copy or cut the data you want to embed.
2. In 1-2-3, select a location for the embedded object.
3. From the Edit menu, choose Paste Special.



4. Select "Paste."
5. In the "As" list, select the type of object you want to embed.

Generally, you should select the first object in the list, which is the server application's native format.

Note To display the embedded object as an icon, select "Display as icon." To select a different icon, click Change Icon, select another icon, and click OK.

6. Click OK.

You see the embedded object in 1-2-3, which appears as an object or as an icon representing the server application.

Embedding an object from a file

1. In 1-2-3, choose Create - Object.



2. Under Create new, select "Object from a file."
3. Enter the path and file name, or click Browse to select from the available directories.

Note To display the embedded object as an icon, select "Display as icon." To select a different icon, click Change Icon, select another icon, and click OK.

4. Click OK.
5. Click the sheet where you want the top left corner of the object to appear.

You see the embedded object in 1-2-3, which appears as an object or as an icon representing the server application.

{button ,AL('H_EMBEDDING_AN_EXISTING_OBJECT_DETAILS',1)} [See details](#)

{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_CREATING_AN_EMBEDDED_OBJECT_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_EDITING_AN_EMBEDDED_OBJECT_STEPS;H_SHARING_DATA_USING_OLE2_OVER;',0)} [See related topics](#)

Details: Creating an embedded object from existing data**Placing the embedded object on the sheet**

Instead of clicking the sheet to have 1-2-3 place and size the embedded object, you can determine the size and position of the object by dragging a box in the sheet.

Linking to a file

You can create an object linked to an entire file by selecting "Object to file" in the Create Object dialog box. For more information, see [Creating a linked object from a file.](#)

{button ,AL('H_EMBEDDING_AN_EXISTING_OBJECT_STEPS',1)} [Go to procedure](#)

Editing an embedded object

You can edit an embedded object in place if the server application supports in-place editing, or out of place if it does not.

1. Double-click the object you want to edit.
2. Edit the object using the menus, icons, and toolbars of the server application.
3. If you are editing in place, click in the sheet outside the object to complete your edits.
4. If you are editing out of place, you can return to 1-2-3 by choosing one of the following commands.

Note These menu commands may not all be available or may differ slightly in different applications.

- File - Exit & Return closes the source file and the server application and returns to 1-2-3.
- File - Close closes the source file and returns to 1-2-3 while leaving the server application open to make it faster to edit other embedded objects.
- File - Update sends the updated data back to 1-2-3 and the source file remains open.

{button ,AL('H_EDITING_AN_EMBEDDED_OBJECT_DETAILS',1)} [See details](#)

{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_CREATING_AN_EMBEDDED_OBJECT_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_EMBEDDING_AN_EXISTING_OBJECT_STEPS;H_DRAGGING_A_RANGE_TO_THE_DESKTOP_STEPS;',0)} [See related topics](#)

Details: Editing an embedded object

Other ways to begin editing an embedded object

To edit an object in place:

- Select it and press ENTER.
- Select it, choose the object's name from the 1-2-3 menu (for example, "Document" for a Word Pro embedded object), and then choose Edit.

Note If the embedded object looks like an application's icon, you cannot edit in place.

To edit an object out of place:

- Select it and press CTRL+ENTER.
- Select it, choose the object's name from the 1-2-3 menu (for example, "Document" for a Word Pro embedded object), and then choose Open.

Tip You might want to edit out-of-place when you need to print just the data in the embedded object. To edit out-of-place from 1-2-3, right-click the embedded object and choose Open.

What happens during in-place editing

Even if an application supports most OLE features, it may not support in-place editing. Consult the server application's documentation for more information.

Applications that support in-place editing allow you to edit embedded objects without leaving the container application. When you select an embedded object that can be edited in place, the following happens:

- The commands (except for the File and Window commands), icons, toolbars, and so on, change to that of the server application.
- Icons and toolbars from the server application appear inside the container application's window.

What happens during out-of-place editing

Applications that do not support in-place editing of embedded objects allow you to edit them in the server application. When you edit an object out of place, the following happens:

- The selected object opens in a new window of the server application.
- In the container application, the object is shaded.
- The object changes as you edit it. In some applications, there is a short delay.

{button ,AL('H_EDITING_AN_EMBEDDED_OBJECT_STEPS',1)} Go to procedure

Dragging a range to the desktop

You can drag a 1-2-3 range to the desktop to create a scrap, which is an embedded 1-2-3 object with the desktop as its container. This data is not linked to the original file.

1. Size the 1-2-3 window so that the desktop is visible.
2. Select a range.
3. Position the mouse pointer on the border of the range so that the pointer changes to a hand.



4. Drag the range to the desktop.

The object appears as an icon with a name beginning with "Workbook Scrap" and followed by characters taken from the first row of the cells you selected in 1-2-3. You can double-click the icon to open the 1-2-3 workbook containing the data.

{button ,AL('H_EMBEDDED_OBJECTS_OVER;H_CREATING_AN_EMBEDDED_OBJECT_STEPS;H_USING_DRAG_AND_DROP_TO_EMBED_AN_OBJECT_STEPS;H_EMBEDDING_AN_EXISTING_OBJECT_STEPS;';,0)} See related topics

Overview: Sharing data using DDE

DDE (Dynamic Data Exchange) is a protocol that lets you share data between applications. You use DDE to create links between two files created in applications that support DDE. The server (source) file contains the original data and the client (destination) file contains the linked data.

This release of 1-2-3 supports DDE links in files from previous versions of 1-2-3 and applications that are only DDE enabled.

Why use DDE links in 1-2-3?

Although most applications now use OLE to share data, you may need to link to applications that do not support OLE. You may also need to work with files from previous versions of 1-2-3 that contain DDE links.

Use DDE links when

- You need to share data with an application that only supports DDE.
- You expect the shared data to change.
- You need to update the shared data when the source data changes.

How to create DDE links in 1-2-3

You can open a file from a previous release of 1-2-3 that already contains DDE links or you can manually create DDE links.

To manually create DDE links, you can use [@DATALINK](#), or you can use DDE macros and script commands.

Note You cannot use the Edit - Paste Link or Edit - Paste Special commands to create DDE links in this version of 1-2-3.

What does a DDE link look like?

A DDE link looks like data in the sheet, but the top left cell of the linked range contains an [@DATALINK](#) formula. You can see this formula if you edit the cell.

What can you do with linked data?

- You can move, copy, or delete a link just as you would a range or a graphic object.
- You can view, edit, update, and break links using Edit - Manage Links. For example, you can edit a link so that it refers to a different piece of data in the server application or change a link from automatic to manual.

DDE and previous releases of 1-2-3

If you open a file containing DDE links from a previous release of 1-2-3, 1-2-3 retains the DDE links but changes how the links are implemented.

- In 1-2-3 Release 5, DDE links were implemented using [@DDELINK](#).
- In the current release (1-2-3 Release 9), DDE links are implemented using [@DATALINK](#).

If you open a .WK4 file containing [@DDELINK](#) in the current release of 1-2-3, 1-2-3 converts the formula to [@DATALINK](#) and maintains the DDE link.

For more information, see

[Working with 1-2-3 for Windows files](#)

[Working with 1-2-3 for OS/2 files](#)

{button ,AL(';H_123_AS_A_DDE_CLIENT_OVER;H_123_AS_A_DDE_SERVER_OVER;H_123_CREATING_DDE_LINKS_STEPS;H_123_DDE_AND_OLE_MACRO_COMMANDS_REF',0)} [See related topics](#)

Creating DDE links

In this version of 1-2-3 you can manually create a DDE [link](#).

To manually create a DDE link

- Enter an @DATA LINK function with appropriate arguments in the sheet.
For more information, see [@DATA LINK](#).
- Use the DDE and LINK macro commands.
For more information, see [Help on macro commands](#).
- Use the DDE script commands.
For more information, look up "DDELink class" in [1-2-3 LotusScript A-Z](#).

Notes

In this version of 1-2-3, you cannot use the Edit - Paste Link or Edit - Paste Special commands to create DDE links.

You cannot create DDE links between 1-2-3 workbooks, but you can create formula links.

```
{button ,AL('H_123_AS_A_DDE_CLIENT_OVER;H_123_AS_A_DDE_SERVER_OVER;H_123_DDE_AND_OLE_M  
ACRO_COMMANDS_REF;H_123_DDE_OVER;H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_STEPS',0  
)} See related topics
```

1-2-3 as a DDE client

1-2-3 supports DDE as a client application. The following technical information about 1-2-3 client support may be of interest if you are an advanced DDE user.

Clipboard formats

1-2-3 supports the following Clipboard formats as a client: Text, .WK1, and .WK3.

DDE control settings

The following settings control how 1-2-3 works as a DDE client. These settings are stored in the registry and are accessible using LotusScript. For more information, see [Overview: Using LotusScript](#).

Setting	Description
AutoStartTimeout	Whether to automatically launch the server application when creating a linkH_GLLIN or updating an inactive link if there is no response to the DDE-Initiate message. Default setting: 15000 (automatically launch the server, wait up to 15 seconds for startup to finish)
ExecTimeout	Time in milliseconds to wait for the server application to answer a DDE-Execute message. Default setting: 30000
AdviseTimeout	Time in milliseconds to wait for the server application to answer a DDE-StartAdvise message. Default setting: 10000
PokeTimeout	Time in milliseconds to wait for the server application to answer a DDE-Poke message. Default setting: 10000
ReqTimeout	Time in milliseconds to wait for the server application to answer a DDE-Request message. Default setting: 10000
TermTimeout	Time in milliseconds to wait for the server application to answer a DDE-Terminate message. Default setting: 15000

How AutoStartTimeout works

1-2-3 concatenates the application name with the topic name and attempts to launch the application. The following two things must be true for this to work:

- The application's name must match the .EXE file name.
- The directory containing the application's .EXE file must be in the path.

{button ,AL('H_123_AS_A_DDE_SERVER_OVER;H_123_GLOSSARY_OF_DDE_TERMS_OVER;H_123_DDE_OV
ER',0)} [See related topics](#)

1-2-3 as a DDE server

1-2-3 supports DDE as a server application. The following technical information about 1-2-3 server support may be of interest if you are an advanced DDE user.

Clipboard formats

1-2-3 supports the following Clipboard formats as a server: Text, .WK3, and .WK1.

The System topic

1-2-3 supports a special topic called System, which provides a context for items of information that may be of general interest to other applications. The System items that 1-2-3 supports are listed below.

1-2-3 responds to a request for any of these items in tab-delimited text format. Each string ends with carriage-return and linefeed characters, for example, \r\n.

The system topic contains the following items.

Item	Return Value
SysItems	A list of all System topic items supported by 1-2-3.
Topics	A list of all 1-2-3 DDE topics, including all files in memory plus the System topic.
Formats	A list of formats: Text, .WK3, and .WK1. This list does not distinguish between formats that can be only copied or only pasted and formats that can be both copied and pasted.
Selection	The address of the currently selected <u>range</u> or the name of the currently selected <u>object</u> . If no range or object is selected, this is the current cell pointer location, preceded by the current file name.
RangeNames	A list of named ranges in the <u>current (active) file</u> . Tab characters separate each range, and CRLF characters precede each new file name.
Status	The current state of 1-2-3, either "Ready" or "Busy."

DDE execute strings

The format for execute strings sent to 1-2-3 is

[run(*command-string*)]

where *command-string* is any 1-2-3 command, including macros.

For example,

This string	Executes a
[run(/dfa1..c10~~~~)]	1-2-3 Classic menu command
[run({EDIT-COPY a1..c10})]	1-2-3 macro command
[run({pasteit})]	Macro named <i>pasteit</i>

Note This release of 1-2-3 no longer supports strings that reference the WYSIWYG menu commands.

DDE control settings in the registry

The ServerOff setting controls whether 1-2-3 will respond as a DDE server. The default setting is FALSE (server support is on).

The ServerName setting lets you change the DDE application name. The 1-2-3 default DDE application name is "123W."

{button ,AL('H_123_GLOSSARY_OF_DDE_TERMS_OVER;H_123_DDE_OVER;H_123_AS_A_DDE_CLIENT_OVE
R',0)} See related topics

Glossary of DDE terms

Application	The name of the server application for a DDE link, for example, Word Pro.
Automatic link	A link that automatically updates data in the client application when the data in the server application changes.
Client	The application that requests data from or sends instructions to be carried out by a server application.
Clipboard format	One of a number of standard formats for the exchange of data between applications, for example, Text format.
DDE	Dynamic Data Exchange, a standard for data exchange between applications.
Item	The specific region or piece of data for a link, for example, a Word Pro bookmark.
Link	A connection between data in one application (the server) and another application (the client).
Manual link	A link that does not automatically update data in the client application when the data in the server application changes.
Server	The application that provides data to or receives instructions from a client application.
Topic	Either the name of the file in the server application or a special topic supported by the server application, for example, "SALES.WK4" or "System."

Installing Help on LotusScript

Help on LotusScript is not automatically installed when you install 1-2-3. To install the LotusScript Help files, you must use a customized install.

Tip Print this topic so you can refer to these instructions while running Install. (Install requires that you exit from 1-2-3 if it is open.)

1. Insert the 1-2-3 or SmartSuite Install CD-ROM or first disk in the disk drive.
If you install 1-2-3 over a network, open the directory containing the Install program.
2. Choose Start - Run, type x:\install.exe (where x is the drive containing the Install disk), and click OK.
The installation program begins. Answer all initial questions asked.
3. In the Install Options dialog box, select "Customize features - Manual install," and then click Next.
4. In the "Select 1-2-3 Features to Customize" dialog box, select 1-2-3 and click Customize.
5. Click the Help and Samples tab, and select "1-2-3 LotusScript Help."
6. Deselect all other choices from all other tabs and then click OK.
7. In the "Select 1-2-3 Features to Customize" dialog box, select Approach and click Customize.
8. Deselect all choices from all tabs and then click OK.

Note Deselecting Approach options prevents you from installing or reinstalling Approach program files.

9. Click Next to continue, finish answering all other installation questions, and then click Yes to copy your files.
If you need additional Help while installing the files, click Help in the Install dialog boxes.

Overview: Using LotusScript

LotusScript is a structured programming language that lets you automate tasks in 1-2-3, as well as customize Lotus products and work with them more effectively.

Because LotusScript uses the same development environment as other SmartSuite applications and Lotus Notes, you can create, debug, and run scripts in 1-2-3 and across other applications such as Freelance Graphics, Word Pro, and Lotus Notes. LotusScript is compatible with Visual Basic.

Accessing LotusScript Help

Help on LotusScript is not automatically installed by the Install program. To install the LotusScript Help files, you must use a customized install. For details, see [Installing Help on LotusScript](#).

Once you install LotusScript Help, you can click the topics below for more information:

[LotusScript Index](#)

[1-2-3 LotusScript A - Z](#)

[1-2-3 Classes](#)

[1-2-3 Events](#)

[1-2-3 Methods](#)

[1-2-3 Properties](#)

[Chart Classes](#)

[Chart Methods](#)

[Chart Properties](#)

Details: Recording a script

Actions you cannot record

1-2-3 does not record any of the following:

- Macro commands
- Keystrokes and mouse actions you perform in the Script Editor, Script Debugger, or Dialog Editor
- Keystrokes and mouse actions you perform while a script is running

Using relative ranges

1-2-3 uses absolute range addresses when it records scripts. You can change these to relative ranges in the recorded script by using the Range method.

Naming scripts

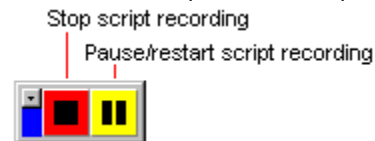
You must specify a name for the script in the "Script name" box. If you do not specify a name for the script, you cannot continue.

The name you give a script must be a valid LotusScript subroutine name.

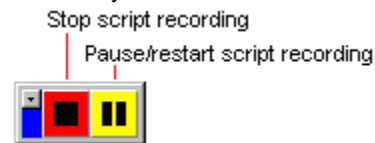
Using the recording controls

When you click Record in the Record Script dialog box, 1-2-3 displays recording controls you can use to stop, pause, and restart recording.

Click the red Stop button to stop recording and display the Script Editor.



Click the yellow Pause button to temporarily stop recording. To resume recording, click the Pause button again.



You can move the recording controls by dragging them.

Storing recorded scripts

You can store the recorded script in any active workbook. Select an active workbook from the list under "Record script into."

Related SmartIcons



Stops recording



Runs a script



Displays the Script Editor

{button ,AL('H_123_RECORDING_A_SCRIPT_STEPS',1)} [Go to procedure](#)

Recording a script

You can record keystrokes and mouse actions into a script.

1. Choose Edit - Scripts & Macros - Record Script.

Stop script recording

Pause/restart script recording



2. Type a name in the "Script name" box.
3. Select a workbook in which to store the recorded script.
4. Click Record.
5. Perform the task you want to record.
6. To stop recording and display the recorded script in the Script Editor, choose Edit - Scripts & Macros - Stop Recording.

Stop script recording

Pause/restart script recording



{button ,AL('H_123_RECORDING_A_SCRIPT_DETAILS',1)} [See details](#)

{button ,AL('H_123_TURNING_RECORDING_OFF_STEPS;H_123_RUNNING_A_SCRIPT_STEPS;',0)} [See related topics](#)

Running a script

Follow these steps to run a script from the Run Scripts & Macros dialog box.

1. Choose Edit - Scripts & Macros - Run.



2. Select the "Script" option.
3. Select the name of a script to run from the "Script name" list.
4. If the script you want to run is not listed, select the name of another active file from the "From" box.
5. Click Run.

{button ,AL('H_123_RUNNING_A_SCRIPT_DETAILS',1)} [See details](#)

{button ,AL('H_RUNNING_A_MACRO_STEPS;H_123_RUNNING_A_SCRIPT_STEPS;H_123_SETTING_GLOBAL_OPTIONS_STEPS;H_123_RECORDING_A_SCRIPT_STEPS;',0)} [See related topics](#)

Details: Running a script

Other ways to run a script

To attach a script to the Actions menu, or to assign a script to a keyboard shortcut, choose Edit - Scripts & Macros - Global Script Options.

To run a script that is attached to the Actions menu, choose Actions and then choose the name of the script you want to run.

To run a script from a keyboard shortcut, press the keyboard shortcut assigned to the script. For example, to run a script named Int_Rates that has been assigned to the keyboard shortcut CTRL+I, press CTRL+I.

Using 1-2-3 while a script is running

While a script is running, you can't do anything else in 1-2-3 unless the script contains a Yield statement.

Related SmartIcons



Records a script



Stops recording a script



Displays the Script Editor

{button ,AL('H_123_RUNNING_A_SCRIPT_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_CREATING_A_BUTTON_STEPS;LSAZ_YIELD_FUNCTION_AND_STATEMENT;H_123_SETTING_GLOBAL_SCRIPT_OPTIONS_STEPS',0)} [See related topics](#)

Setting global script options

You can make it easier for users to run a script by attaching it to the Actions menu or to a keyboard shortcut.

1. Choose Edit - Scripts & Macros - Global Script Options.
2. Select the name of a script to run from the "Scripts" list.
3. If the script you want to edit is not listed, select the name of another active file from the "Edit options for script from" list.
4. Click "Edit Options."
5. To attach the script to the Actions menu, enter the name of the command you want to run the script in the "Menu command on Actions menu" box.
6. (Optional) Enter a description of the script in the "Help text for menu command" box.
7. To assign the script to a keyboard shortcut, enter a letter in the "Ctrl+" box.
8. Click OK.

{button ,AL('H_123_SETTING_GLOBAL_SCRIPT_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_ACTIONS_MENU_REF;H_123_RUNNING_A_SCRIPT_STEPS',0)} [See related topics](#)

Details: Setting global script options

Assigning scripts to the Actions menu

Keep the following in mind when you attach scripts to the Actions menu:

- A script appears on the Actions menu only when the workbook it is stored in is in memory.
- When you highlight the command in the Actions menu, the corresponding Help text appears in the title bar.
- You can attach only Subs that have no parameters to the Actions menu.
- If you delete a script in the Script Editor, 1-2-3 automatically removes the entry from the Actions menu and deletes the keyboard shortcut assigned to it.
- If you make any changes to a script in the Script Editor, 1-2-3 checks to see if it is still valid for Actions menu assignment. If the script is invalid, 1-2-3 automatically removes the entry from the Actions menu.

For example if you add parameters to a global sub that appears on the Actions menu, 1-2-3 automatically removes the sub from the Actions menu.

Assigning scripts to keyboard shortcuts

Keep the following in mind when you attach scripts to keyboard shortcuts::

- 1-2-3 stores keyboard shortcuts with the workbook their corresponding scripts are stored in. Keyboard shortcuts are enabled only when the workbook they are stored in is the current workbook.
- Keyboard shortcuts you assign to scripts take precedence over built-in 1-2-3 keyboard shortcuts. For example, in 1-2-3, Ctrl+X is the keyboard shortcut that cuts the current selection to the Clipboard. However, if you assign a script to Ctrl+X, pressing Ctrl+X runs the script instead of cutting the current selection.
- You can only specify letters as shortcut keys. Do not use numbers, spaces, or punctuation characters.
- If you try to assign a script to a keyboard shortcut that is already assigned to a macro or another script, 1-2-3 displays a message that lets you cancel or continue the assignment.
 - If you choose to continue, and the keyboard shortcut is already assigned to a macro, the keyboard shortcut takes precedence over the backslash macro name. When you press the keyboard shortcut, 1-2-3 runs the script, not the macro.
 - If the keyboard shortcut is already assigned to a script, do not assign it to another script. Unexpected results may occur when you press a keyboard shortcut that is assigned to more than one script.

Assigning scripts to both menus and keyboard shortcuts

You can assign a script to both the Actions menu and a keyboard shortcut.

{button ,AL('H_123_SETTING_GLOBAL_SCRIPT_OPTIONS_STEPS',1)} [Go to procedure](#)

Details: Turning recording off

Other ways to turn recording off

If the Script Editor is open, you can turn recording off by choosing Script - Stop Recording from the Script Editor main menu.

Related SmartIcons



Records a script

{bmlsstartq.bmp} Turns recording off

{button ,AL('H_123_TURNING_RECORDING_OFF_STEPS',1)} [Go to procedure](#)

Turning recording off

To turn recording off when you finish performing the task you want to record choose Edit - Script & Macros - Stop Recording.



{button ,AL('H_123_TURNING_RECORDING_OFF_DETAILS',1)} [See details](#)

{button ,AL('H_123_RECORDING_A_SCRIPT_STEPS',0)} [See related topics](#)

Overview: Info components

Info components store information about the current 1-2-3 session.

For example, Worksheet-Background-Color info component stores the number that identifies the color of the current worksheet.

Types of info components

There are three types of info component values: Number, Text, and Range.

- For Number, use a numeric formula, or the range name or address of a cell that contains a number or numeric formula.
- For Text, use any text enclosed in " " (quotation marks), a text formula, or the range name or address of a cell that contains a label or text formula.

For some Text info components, you can specify any text. In this case, you want 1-2-3 to use the text literally, that is, exactly as you specify it.

For other Text info components, you must use specific text. For example, the Print-Grid-Lines Info component specifies whether to print grid lines. The value of Print-Grid-Lines can be yes or no.

- For Range, use a range name or address, or any formula that evaluates to a range name or address.

Using info components

- In some macro commands, when you omit an optional argument, 1-2-3 uses the current value of an info component in place of the omitted argument.

For example, if you omit the *range* argument in {SORT}, 1-2-3 sorts the data in the range specified by the Data-Sort-Range info component.

- You can set an info component to a particular value by using the {SET} macro command.

For example, {SET "worksheet-format";"currency"} sets the default number format to Currency.

Note Changing an info Component value does not cause 1-2-3 to recalculate, even if you set recalculation to Automatic.

- You can find out the value of an info component by using @INFO.

For example, @INFO("setup-undo") returns YES if Edit - Undo is on or NO if Edit - Undo is off.

{button ,AL(`H_M_INFO_FILE;H_M_INFO_MAPS;H_M_INFO_PRINT;H_M_INFO_PRINTER;H_M_INFO_SORT;H_M_INFO_US;H_M_INFO_WIN;H_M_INFO_SWD;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

File info components

Store information about a document.

Component name	Type	Definition
Document-Comments	Text	Comments about the file, up to 256 characters
Document-Keywords	Text	File keywords, up to 256 characters
Document-Revisions	Text	Notes about file revisions, up to 512 characters
Document-Subject	Text	Subject of the file, up to 256 characters
Document-Title	Text	Title of the file, up to 256 characters
File-Reserve-Automatically	manual, automatic	Whether to ask for the file reservation automatically when opening a file, or to ask for it manually

{button ,AL('H_M_INFO_OBSOLETE_OVER;H_M_INFO_C',0)} [See related topics](#)

Mapping info components

Store information about automatic or manual redrawing of maps.

Component name	Type	Definition
Map-Draw	automatic, manual	Whether to redraw maps automatically when data in the data range changes or to redraw them manually

{button ,AL('H_M_INFO_OBSOLETE_OVER;H_M_INFO_C',0)} [See related topics](#)

Print info components

Store information about print settings. The info components for printing correspond to the arguments of the {PRINT} macro command.

Component name	Type	Definition
Print-Beginning-Page-Number	Number	Page number with which to start numbering in headers and footer
Print-Centered	horizontal, vertical, both, clear	Centers a print range on the page
Print-Drawn-Objects	no, yes	Whether to print charts and other graphic objects
Print-Fit-Page	no, yes	Whether to shrink what you print to fit a single page
Print-Footer-Center-Text	Text	Center text in footer
Print-Footer-Left-Text	Text	Left text in footer
Print-Footer-Right-Text	Text	Right text in footer
Print-Grid-Lines	no, yes	Whether to print grid lines
Print-Header-Center-Text	Text	Center text in header
Print-Header-Left-Text	Text	Left text in header
Print-Header-Right-Text	Text	Right text in header
Print-Margin-Bottom	Number	Bottom margin height, in inches
Print-Margin-Left	Number	Left margin width, in inches
Print-Margin-Right	Number	Right margin width, in inches
Print-Margin-Top	Number	Top margin height, in inches
Print-Orientation	landscape, portrait	Whether to print in portrait or landscape mode
Print-Range	Range or Collection	Range or collection to print
Print-Size	actual, fit-all, fit-columns, fit-rows, fill-page, fill-page-in-proportion	What type of print compression, if any, to use
Print-Size-Manual	Number	Manually specifies a print compression percentage
Print-Titles-Clear	columns, rows	Clears row or column titles
Print-Titles-Column-Range	Range	Range that contains column titles
Print-Titles-Row-Range	Range	Range that contains row titles
Print-Worksheet-Frame	no, yes	Whether to print the sheet frame

{button ,AL('H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

Printer Setup info components

Store information about a printer's properties.

Component name	Type	Definition
Printer-Setup-Bins	Text	Default paper bin from the Paper Source box in your printer's Properties dialog box
Printer-Setup-Copies	Number	Number of copies to print
Printer-Setup-Name	Text	Name of a printer
Printer-Setup-Paperlength	Number	The paper length, in either inches or millimeters; overrides Printer-Setup-Papersize
Printer-Setup-Paperwidth	Number	The paper width, in either inches or millimeters; overrides Printer-Setup-Papersize
Printer-Setup-Papersize	Text	Paper size from the Paper Size list in your printer's Properties dialog box
Printer-Setup-Quality	high, medium, low, draft	Print resolution

{button ,AL('H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

Sort info components

Store information about a database sort. The info components for sorting correspond to the arguments of the {SORT} and {SORT-KEY-DEFINE} macro commands.

Component name	Type	Definition
Data-Sort-Direction[<i>n</i>]	descend, ascend	Direction in which to sort the data according to Data-Sort-Key[<i>n</i>]
Data-Sort-Key[<i>n</i>]	Range	Contains <i>n</i> th sort key
Data-Sort-Range	Range	Contains data you want to sort

Note *n* is a value from 1 through 255 that specifies a sort key or sort direction.

{button ,AL(`H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

User Setup info components

Store information about settings that affect the display and behavior of 1-2-3 in the current and future sessions.

Component name	Type	Definition
Setup-Autoexec	no, yes	Whether to run autoexecute macros (\0 macros)
Setup-Beep	no, yes	Whether to beep on error
Setup-Drag-And-Drop	no, yes	Whether to use drag and drop
Setup-File-Link-Update	manual, automatic	Whether to update file links manually or automatically
Setup-International-Currency-Default	Text	Default currency format
Setup-International-Currency-Position	prefix, suffix	Whether the currency symbol appears before or after the number
Setup-International-Currency-Symbol	Text	Text for the currency symbol
Setup-International-Negative-Values	parentheses, minus-sign	Whether negative numbers appear in parentheses or with a minus sign
Setup-International-Text	country, international	Sets the character translation table that 1-2-3 uses when combining and creating text files
Setup-International-WK1	LICS, ASCII	Sets the way 1-2-3 reads and saves characters in 1-2-3 for DOS Release 2 files
Setup-Recalculate	manual, automatic	How 1-2-3 recalculates formulas
Setup-Recalculate-Iterations	Number	Number of recalculation iterations (from 1 through 50)
Setup-Recalculate-Order	natural, columns, rows	Formula recalculation order
Setup-Recent-Files-Number	Number	Number of recent files to show in the File menu (from 0 through 5)
Setup-Skip-Smartmasters	no, yes	Whether to display the New File dialog box when starting 1-2-3
Setup-Skip-Welcome	no, yes	Whether to display the Welcome

Setup-Undo	no, yes	dialog box when starting 1-2-3 Whether to enable Undo
Setup-Worksheet-Directory	Text	Sets the <u>default</u> <u>directory</u>

{button ,AL('H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} See related topics

Window info components

Store information about view preferences and various mouse actions.

Component name	Type	Definition
Window-Custom-Zoom	Number	Sets the percent for View Zoom to Custom Level for the current file
Window-Display-Drawn-Objects	no, yes	Whether to display charts and other graphic objects in the current file
Window-Display-Edit-Line	no, yes	Whether to display the <u>edit line</u> in 1-2-3
Window-Display-Frame	no, yes	Whether to display the sheet frame in the current file
Window-Display-Grid-Lines	no, yes	Whether to display grid lines in the current file
Window-Display-Page-Breaks	no, yes	Whether to display page breaks in the current file
Window-Display-Scroll-Bars	no, yes	Whether to display scroll bars in the current file
Window-Display-SmartIcons	no, yes	Whether to display SmartIcons in 1-2-3
Window-Display-Status-Bar	no, yes	Whether to display the status bar in 1-2-3
Window-Display-Tabs	no, yes	Whether to display sheet tabs in the current file
Window-Height	Number	Sets the height of the current window, in pixels
Window-Split	clear, horizontal, vertical	How to split the current window
Window-Split-Height	Number	Sets the height of the current pane, in pixels
Window-Split-Synchronize	no, yes	Whether to synchronize scrolling in panes
Window-Split-Width	Number	Sets the width of the current pane, in pixels
Window-Width	Number	Sets the width of the current window, in pixels
Window-X-Position	Number	Sets the horizontal position, in pixels, measured from the left side of the 1-2-3 window to the left side of the current window
Window-Y-Position	Number	Sets the vertical position, in pixels, measured from the top of the 1-2-3 window to the top of the current window

{button ,AL('H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

Worksheet Defaults info components

Store information about default settings.

Component name	Type	Definition
Worksheet-Align-Text	left, right, center	How to align data in a cell horizontally
Worksheet-Background-Color	Number	Default cell background color (0 through 255)
Worksheet-Column-Width	Number	Default column width
Worksheet-Display- Windows-Defaults	no, yes	Controls whether 1-2-3 uses Windows default colors for display; this setting has no effect on your print colors, which always come from the sheet's text and background colors
Worksheet-Font	Text	Default typeface
Worksheet-Font-Size	Number	Default point size
Worksheet-Format	comma, currency, fixed, general, label, percent, scientific, text, date-short-international, date-long-international, dd-mmm, dd-mmm-yy, mmm-yy, hh:mm am/pm, hh:mm:ss am/pm, time-long-international, time-short-international	Default number format
Worksheet-Format-Color- Negatives	no, yes	Whether to display negative numbers in red
Worksheet-Format-Decimals	Number	Default number of decimal places
Worksheet-Format-Display-Zeros	show, blank	Whether to display zeros in cells that contain the number 0 or formulas that evaluate to 0
Worksheet-Format-Parentheses	no, yes	Whether to enclose all new values in parentheses
Worksheet-Format-Zero-Text	Text	Label to display in place of zeros in cells that contain the number 0 or formulas that evaluate to 0
Worksheet-Grid-Color	Number	Default grid-line color

Worksheet-Group-Sheets	no, yes	(0 through 255) Whether to turn Group mode on or off for the current file
Worksheet-Row-Height	Number	Default row height
Worksheet-Tab-Color	Number	Color of the tab for the current sheet
Worksheet-Text-Color	Number	Default text color (0 through 255)

Note Setting the default text or background color for the current sheet also sets the Worksheet-Display-Windows-Defaults component to "no".

If you want to write a macro that displays the Windows default colors, but prints in another color, set the Worksheet-Format-Text and Worksheet-Format-Background components first, and then set the Worksheet-Display-Windows-Defaults component to "yes".

{button ,AL('H_M_INFO_C;H_M_INFO_OBSOLETE_OVER',0)} [See related topics](#)

What's different in info components

Some info components work differently in the current release of 1-2-3 than in previous releases of 1-2-3, as described below.

Read-only info components

The following info components are read-only in the current release of 1-2-3. You can use them with @INFO to obtain information about a 1-2-3 session, but you cannot use them with the {SET} command to change settings. Using these info components with the {SET} command has no effect in the current release.

- Setup-International-Currency-Default
- Setup-International-Currency-Position
- Setup-International-Currency-Symbol
- Setup-International-Negative-Values

Obsolete info components

The following info components are not supported in the current release of 1-2-3. Using these info components with @INFO causes the @INFO formula to evaluate to NA. Using these info components with the {SET} command has no effect in the current release.

- Setup-Autoformat
- Setup-Autosave
- Setup-Autosave-Interval
- Setup-International-Currency-Display
- Setup-International-Date
- Setup-International-Separators
- Setup-International-Time
- Window-Display-Frame-Type

{button ,AL('H_M_INFO_C',0)} [See related topics](#)

Presenting data in a map

This task consists of the following parts:



Introducing maps in 1-2-3



Setting up map data



Creating a map

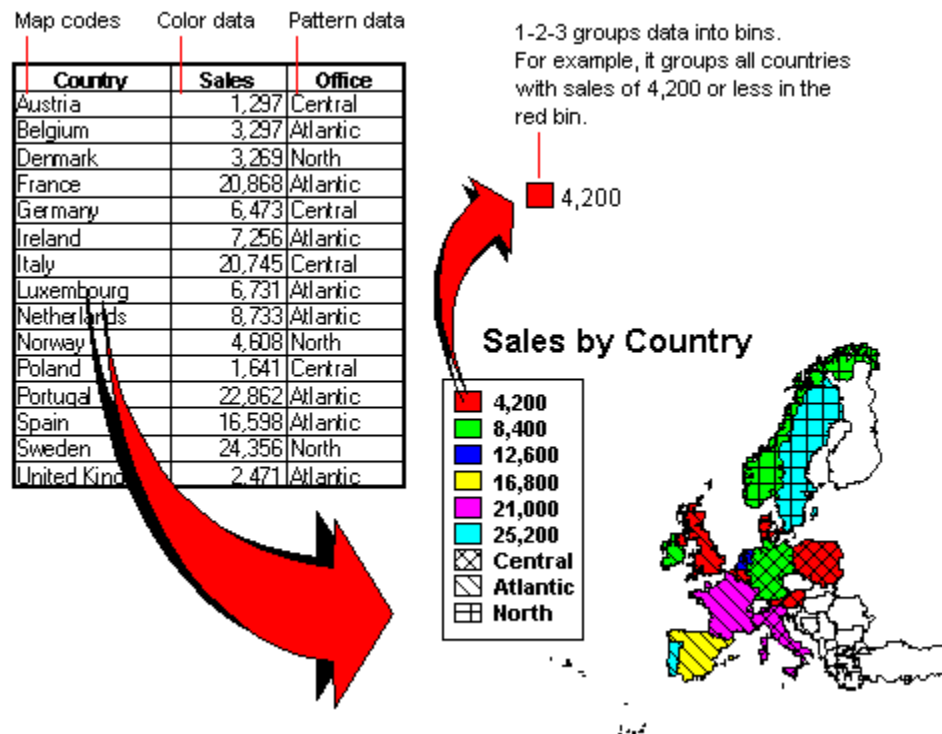


Modifying a map

Introducing maps in 1-2-3

You can use a map in 1-2-3 to present data about recognizable geographic regions such as states or countries in a form that's visually interesting and easy to understand. For example, you can use a map to display sales information for each country in the world.

The map below uses color to indicate each country's level of sales. It also uses patterns to identify the sales office related to the country.



How 1-2-3 maps the data

First, 1-2-3 checks the region names or codes in the map data range to determine which map to use.

Showing data with colors and patterns

Next, 1-2-3 evaluates the data to determine how to color or pattern the map. 1-2-3 maps the first range of data with up to six colors. If there is a second data range, this range appears as up to six patterns applied to the same map regions. Color and pattern ranges may contain either values or labels.

More than six values are grouped in bins

When a data range contains more than six values, the map groups the data into six categories, called bins, and shows each bin with a separate color or pattern on the map.

Pin characters mark locations

You can include a third set of data to mark one or more locations in the map region with a symbol, like P, or a label, like "World Headquarters." These symbols or labels are called pin characters.

Additional information

For additional information about map data and mapping software, contact:

ESRI
380 New York Street
Redlands, CA 92373-8100
1-800-GIS-XPRT (1-800-447-9778)
1-909-793-2853 extension 1235
www.esri.com

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

{button ,AL('H_NAMING_A_MAP_STEPS;H_REDRAWING_MAPS_STEPS;',0)} [See related topics](#)

Presenting data in a map

This task consists of the following parts:



[Introducing maps in 1-2-3](#)



Setting up map data



[Creating a map](#)



[Modifying a map](#)

Setting up map data

You specify the data you want to map in columns. Each column can contain only one kind of data: region names or map codes, values or labels, or pin character information (symbol or label, latitude, longitude, or color values).

1. Enter the region names or [map codes](#) in the leftmost column.
2. Enter the data to be mapped with color for each region name or code in the second column.
3. Enter the data to be mapped with patterns for each region name or code in the third column.
4. Enter the [pin character](#), latitude, longitude, and (optionally) color in subsequent columns.

Note It is usually easier to add pin characters to a map after you create it because you can point to the map to determine the latitude and longitude.

{button ,AL('H_SETTING_UP_MAP_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

{button ,AL('H_123_DETERMINING_LATITUDE_AND_LONGITUDE_STEPS;H_ADDING_PIN_CHARACTERS_TO_A_MAP_STEPS;H_CHANGING_RANGE_ASSIGNMENTS_STEPS;H_CHANGING_COLOR_AND_PATTERN_BI_N_VALUES_STEPS;H_CHANGING_THE_TITLE_STEPS;H_CHANGING_THE_LEGEND_LABELS_STEPS',0)}
[See related topics](#)

Details: Setting up map data

Entering map codes

The left column of the selected range must contain the region name or map code for each location. For example, you can use either the region name "Massachusetts" or the map code "MA" to represent that U.S. state; similarly, you can use either the region name "Tokyo" or the map code "13" to represent that Japanese prefecture. 1-2-3 uses these region names and map codes to link regions in the map to rows of data in the range.

Entering data for each region

It's best to place the data you want to map in the column(s) immediately to the right of the map codes. This data can be labels or values.

The way 1-2-3 maps the data depends on the type of data and the number of different entries in the range:

- If the color or pattern range contains labels, each label corresponds to a different color or pattern on the map. 1-2-3 can display colors or patterns for up to six different labels.
- If the color or pattern data range contains six or fewer different values, each value corresponds to a color on the map.
- If the color or pattern data range contains more than six different values, 1-2-3 groups the values into six categories, called bins, and shows each bin with a separate color or pattern on the map.

Entering pin characters

Pin characters can highlight particular locations or areas of a map. Because you must specify the latitude and longitude at which you want the pin character to appear, it is easier to add the pin characters after you create the map. If you know the coordinates, you can specify pin characters before you create the map. A pin character can be either a label or a graphic symbol.

{button ,AL('H_SETTING_UP_MAP_DATA_STEPS',1)} [Go to procedure](#)

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

Presenting data in a map

This task consists of the following parts:



[Introducing maps in 1-2-3](#)



[Setting up map data](#)



Creating a map



[Modifying a map](#)

Creating a map

Before you can create a map, you should set up data in a range containing at least two columns.



[Show me a QuickDemo](#)

1. If you have not yet done so, complete part 2 of this task.
2. Select the range containing the map data, or select a single cell within the range.
Do not include column headings in the range you select.
3. From the Create menu, choose Map.



4. Click the sheet where you want the top left corner of the map to appear.
If 1-2-3 cannot determine what type of map to use, the Map Types dialog box appears. Select a map type and click OK.
If 1-2-3 cannot identify a region you specified, the Region Check dialog box appears so you can [check the unrecognized region name](#) against the official 1-2-3 list of names and codes.

Tip Right-click the map to display the shortcut menu for working with maps. For example, once you create a map, you can learn the name and map code of a specific region by right-clicking the region in the map.

{button ,AL('H_CREATING_A_MAP_DETAILS',1)} [See details](#)

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

{button ,AL('H_ADDING_PIN_CHARACTERS_TO_A_MAP_STEPS;H_CHANGING_RANGE_ASSIGNMENTS_STEPS;H_CHANGING_COLOR_AND_PATTERN_BIN_VALUES_STEPS;H_CHANGING_THE_TITLE_STEPS;H_CHANGING_THE_LEGEND_LABELS_STEPS',0)} [See related topics](#)

Details: Creating a map

Specifying the map location

You can click a single cell to position the map in the sheet, or click and drag a rectangle.

- If you click a single cell, 1-2-3 creates a default-sized map. The upper left corner of the map appears in the cell you clicked.
- If you click and drag, 1-2-3 displays a bounding box that lets you position and size the map. The map appears when you release the mouse button, and the bounding box becomes the map frame. The map plot area is sized within the frame as large as possible, while maintaining the proper aspect ratio for the map and allowing space for the title and legend.

Tip To align the map frame to the sheet grid lines, SHIFT+CTRL+drag to size the map.

Changing how 1-2-3 links data to the map

You can change the way that 1-2-3 links data to the map by using the Ranges tab in the [InfoBox](#) for maps. For example, you can display the range currently shown with colors with patterns instead. For more information, see [Changing map range assignments](#).

To change the way 1-2-3 defines the bins, use the Colors or Patterns tab in the InfoBox for maps. See [Changing bin definitions for colors or patterns](#).

{button ,AL('H_CREATING_A_MAP_STEPS',1)} [Go to procedure](#)
{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

Example: Setting up map data and creating a map

A map lets you relate data in a range to recognizable geographic regions such as states or countries.

Specifying the map data

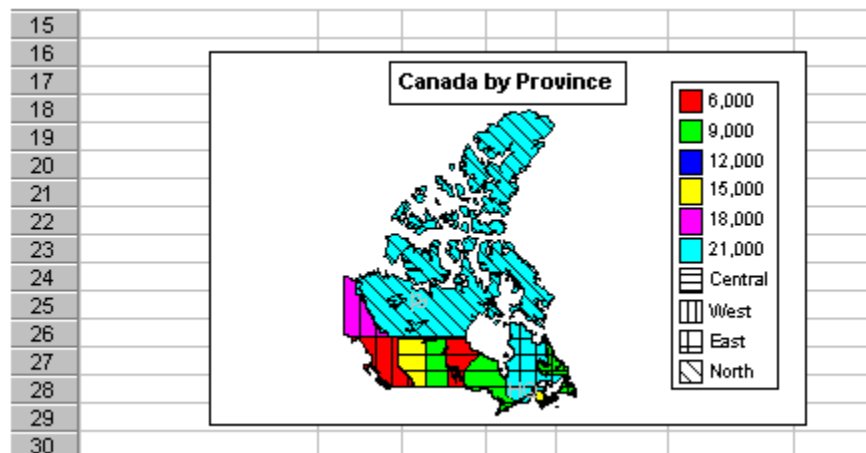
Suppose you want to illustrate sales figures in Canada for Caleb's Canoes.

- List the Canadian provinces in which the canoes are sold in column A.
- List the amounts sold in those provinces in column B.
- List the region to which each office belongs in column C.
- Specify pin character information in columns D, E, F, and G to locate the corporate headquarters office and the office that sold the most canoes. (You can also add the pin characters after you create the map.)

A	A	B	C	D	E	F	G
1	Provinces	Sales	Area	Flag	Location		
2					<i>Latitude</i>	<i>Longitude</i>	<i>Color</i>
3	Alberta	13,910	Central				
4	British Columbia	3,297	West				
5	Manitoba	3,269	Central				
6	New Brunswick	14,462	East				
7	Newfoundland	6,473	East				
8	Nova Scotia	7,256	East				
9	North West Territories	20,745	North				
10	Ontario	6,731	Central	P	65.46	-111.97	60
11	Prince Edward Island	5,672	East				
12	Quebec	19,123	East	HQ	47.66	-72.19	60
13	Saskatchewan	8,733	Central				
14	Yukon	16,598	West				

Creating the map

Once you have entered the data, you can create the map.



Interpreting the map

The map reflects the data you entered:

- Provinces (column A) -- Because you entered only Canadian provinces, 1-2-3 shows a map of Canada and distinguishes its provinces.
- Sales (column B) -- This data is represented in the map by color. 1-2-3 grouped the data into six categories, called bins, and then colored each country according to bin. For example, every province that sold 6,000 or fewer canoes is colored red.
- Area (column C) -- This data is represented in the map by pattern. For example, 1-2-3 shows all provinces belonging to the Western office with straight vertical lines.
- Flag and Location (columns D-G) -- The pin characters you specify in column D appear in the locations you specify in columns E and F. You can determine the color of the pin character by entering a value in column G.

In addition to the data you enter, 1-2-3 provides some additional information to help you interpret the map:

- Title -- 1-2-3 assigns a default title to the map. You can easily change this title to be more meaningful to you.

- Legend -- The legend explains the colors and patterns that appear in the map. You can change the colors, patterns, and legend labels.

```
{button ,AL('H_123_DETERMINING_LATITUDE_AND_LONGITUDE_STEPS;H_ADDING_PIN_CHARACTERS_TO_
A_MAP_STEPS;H_CHECKING_MAP_REGIONS_STEPS',0)} See related topics
```

Checking unrecognized region names

If 1-2-3 cannot find a match for a region name or map code in the data range, the Region Check dialog box displays the unrecognized name or code and its cell address. This dialog box can appear when you are creating a map or when you change the data for an existing map.

You can change the unrecognized region name to one that 1-2-3 recognizes, add the name or code as a custom name, or not include the unrecognized region in the map.

1. In the "Region list type" list, select the kind of list you want to work with (Names, Codes, or Custom Names).
2. In the "Known map region" list, select the recognized name or code that corresponds to the unrecognized label in the map data range.
3. Select either "Replace in cell with" or "Add as Custom Name for."
4. Click OK to implement your choice, or click Skip or Skip All if you don't want to include the unrecognized region in the map.

Tip If you are unsure of the correct region name, skip it and create the map. Then you can right-click the region in the map to see the region name in the shortcut menu. When you enter the correct region name in the data range, 1-2-3 automatically adds the data to the map.

1-2-3 repeats this procedure until all unknown labels in the map data range have been replaced, skipped, or defined as custom names.

Note If you decide not to create the map, click Cancel.

{button ,AL('H_CHECKING_MAP_REGIONS_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_MAP_STEPS;H_SETTING_UP_MAP_DATA_STEPS;H_DELETING_OBJECTS_STEPS',0)} [See related topics](#)

Details: Checking unrecognized region names

Recognizing standard region names or codes

When you choose Map - Create, 1-2-3 reads each label in the leftmost column of the map data range and compares it to the list of region names, codes, and custom names for the map type. When it encounters a name or code it does not recognize, 1-2-3 displays the Region Check dialog box and lists the first unknown map region in "Unknown map region."

Options: Region Check dialog box

Using Map -- Specifies the type of map being created. Either 1-2-3 automatically determined the map type based on the region names or codes you entered, or you selected the map type on the Map Types dialog box.

Checking -- Specifies the cell address of the region name or code that 1-2-3 could not recognize.

Unknown map region -- Specifies the region name or code that 1-2-3 could not recognize.

Replace in cell with -- Replaces the label in the map data range with the item you selected from the "Known map region" list.

Add as Custom Name for -- Defines the label in the map data range as an acceptable substitute for the item you selected from the "Known map region" list. This option is useful when the name of a country has changed.

Known map region -- Lists the region names, region codes, or custom names that 1-2-3 recognizes for the specified map type.

Region list type -- Lets you select the type of list you want to work with:

- "Names" lists conventional geopolitical names of map regions, like India and Finland.
- "Codes" lists map codes.
- "Custom Names" lists labels that you previously defined as acceptable substitutes for the recognized names or codes of regions in this map type. For example, you may prefer to use the name Nippon instead of Japan. When you link a custom name to a recognized name or code, 1-2-3 enters the substitute in the list of custom names for the map type and recognizes the substitute when you use it again.

{button ,AL('H_CHECKING_MAP_REGIONS_STEPS',1)} [Go to procedure](#)

Adding pin characters to a map

You can include [pin characters](#) in maps to highlight locations or add more meaning to the map.

Want the big picture? See [Presenting data in a map](#).

Adding pin characters after you create the map

1. Enter a symbol or label for the pin character in the column to the right of the map data.
2. Enter the latitude and longitude in the next two columns.

Tip See [Determining latitude and longitude](#).

3. (Optional) Enter the value for the color in the next column.
4. [Select](#) the map to which you want to add the pin characters.
5. From the Map menu, choose Ranges.



6. Enter the three-column range that includes the pin character information in the "Pin characters, latitude and longitude" box, or use the [range selector](#) to specify the range.

Adding pin characters before you create the map

1. Set up the range that includes the pin character, latitude, and longitude for the map.
2. Select this data when you create the map.

{button ,AL('H_ADDING_PIN_CHARACTERS_TO_A_MAP_DETAILS',1)} [See details](#)

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

{button ,AL('H_CREATING_A_MAP_STEPS;H_MODIFYING_MAPS_OVER;H_SETTING_UP_MAP_DATA_STEPS;H_CHANGING_RANGE_ASSIGNMENTS_STEPS',0)} [See related topics](#)

Details: Adding pin characters to a map

Specifying the pin character

Good sources of symbols to use for pin characters are the Wingdings or ZapfDingbats fonts. You can see the symbol in the available font in the Windows Character Map. To add a character to the 1-2-3 sheet, copy the character from the Character Map to the Clipboard, paste it into a cell, and apply the appropriate font.

Specifying the pin character color

Use numbers 0 through 239 to specify the pin character color. If you don't specify a color, the pin character will be black.

{button ,AL('H_ADDING_PIN_CHARACTERS_TO_A_MAP_STEPS',1)} [Go to procedure](#)

{button ,AL('H_RANGE_OF_MAP_DATA_EX',1)} [See example](#)

Determining latitude and longitude

You can determine the latitude and longitude of the location for a pin character by pointing to the map.

1. Select the map to which you want to add a pin character.
2. Right-click on the location for the pin character.

The region name, code, and map coordinates appear in the shortcut menu.

3. From the shortcut menu, choose Copy Coordinates.
4. Click the cell where you want to paste the latitude.
5. From the Edit menu, choose Paste.

Tip You can determine the latitude and longitude quickly by pointing to a location in the map and pressing the right mouse button. The latitude, longitude, region name and appear in the 1-2-3 title bar. As you move the mouse, 1-2-3 updates the information in the title bar to show the current location.

What do negative coordinates mean?

The latitude coordinate is negative if the region you clicked is south of the equator. The longitude coordinate is negative if the region is west of the Greenwich meridian and east of the International Date Line.

For example, both coordinates are negative for locations in Chile. Both coordinates are positive for locations in Poland. For locations in Australia, however, the latitude is negative but the longitude is positive, since Australia is east of the Greenwich meridian and west of the International Date Line.

```
{button ,AL('H_ADDING_PIN_CHARACTERS_TO_A_MAP_STEPS;H_MAPS_OVER;H_CHANGING_RANGE_ASSI  
GNMENTS_STEPS',0)} See related topics
```

Presenting data in a map

This task consists of the following parts:



[Introducing maps in 1-2-3](#)



[Setting up map data](#)



[Creating a map](#)



[Modifying a map](#)

Modifying a map

Once a map has been created, you can change it in many ways. In a map of the world, you may want to show Asia alone, or add Hawaii and Alaska to a map of the United States. You can also control colors and patterns, [bin](#) definitions, and other map characteristics.

Note Each time you make a change to a map or its data ranges, 1-2-3 automatically redraws the map, which can take time. To control how often 1-2-3 redraws a map, see [Redrawing maps](#).

Changing the map content

You can change the map content in many ways. You can:

- Flag specific locations. See [Adding pin characters to a map](#).
- Display a smaller or larger area of the map. See [Zooming in or out of a map](#).
- Focus on the area containing your data. See [Choosing the center of a map](#).
- Show other states or countries. See [Overlaying additional map areas](#).
- Change the way the map groups values in bins. See [Changing bin definitions for colors or patterns](#).
- Add, delete, or change map data ranges. See [Changing map range assignments](#).

Changing the map appearance

You can also control aspects of the map's appearance. You can:

- Give the map a meaningful title. See [Changing a map title](#).
- Change the legend position, or hide the legend. See [Changing map legend position](#).
- Change the legend label text. See [Changing map legend labels](#).
- Change the colors or patterns. See [Changing bin colors or patterns](#).
- Control the map dimensions, zoom percentage, and rotation. See [Changing the plot area of a map](#).

Styling a map

Like other types of graphic objects, you can also change the text, borders, and fill characteristics of the map components, such as the title and map frame, using the Text Format tab and the Lines & Colors tab in the InfoBox.



You can also resize a map, group a map with another map, or print a map. See [Overview: Working with graphic objects](#).

```
{button ,AL('H_NAMING_A_MAP_STEPS;;H_REDRAWING_MAPS_STEPS;H_REMOVING_AN_OVERLAY_STEPS  
;H_CHANGING_TEXT_FORMAT_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_GROUP  
ING_GRAPHICS_STEPS;H_HIDING_OR_REDISPLAYING_GRAPHICS_STEPS;H_LOCKING_OR_UNLOCKING  
_GRAPHICS_STEPS',0)} See related topics
```

Naming a map

The default name of the map, for example, "Map 1," appears in the selection indicator. You can change the name to be more meaningful to you and to help you find the map using Edit - Go To.

1. Select the map for which you want to change the name.
2. From the Map menu, choose Map Properties.



3. Click the Basics tab in the InfoBox.



The default map name appears.

4. Enter a new name.

Note When you rename a map, you must use the same naming conventions as for naming a range. The only exception to these conventions is that a map name can be up to 64 characters long.

5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_MODIFYING_MAPS_OVER;H_CHANGING_THE_TITLE_STEPS',0)} [See related topics](#)

Changing map range assignments

You can change the range specified for region names or codes, colors, patterns, or pin characters.

Want the big picture? See [Presenting data in a map](#).

1. [Select](#) the map for which you want to change the range assignments.
2. From the Map menu, choose Ranges.



3. Enter the range you want to assign in the appropriate option box in the [InfoBox](#), or use the [range selector](#) to specify the range.

If 1-2-3 cannot identify a region you specified, the Region Check dialog box appears so you can [check the unrecognized region name](#) against the official 1-2-3 list of names and codes.

4. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_CHANGING_RANGE_ASSIGNMENTS_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_UP_MAP_DATA_STEPS;H_ADDING_PIN_CHARACTERS_TO_A_MAP_STEPS;H_CHANGING_THE_TITLE_STEPS;H_CHANGING_THE_LEGEND_LABELS_STEPS;H_CHANGING_THE_DATA_COLORS_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

Details: Changing map range assignments

Ranges that have already been specified are shown. If a range is blank, that type of data is not used in the map.

Options: InfoBox for maps (Ranges tab)

Map region names or codes -- Displays the data range currently specified for the region names or codes.

Data to map with colors -- Displays the data range currently specified to be mapped with colors.

Data to map with patterns -- Displays the data range currently specified to be mapped with patterns.

Pin characters, latitude and longitude -- Displays the data range currently specified for the pin characters. This range must be at least three columns wide.

{button ,AL('H_CHANGING_RANGE_ASSIGNMENTS_STEPS',1)} [Go to procedure](#)

Changing the plot area of a map

The plot area of a map is the map itself. By default, 1-2-3 centers the plot area in the map frame. You can drag the plot area to any position or size within the map borders.

You can change the map plot's rotation, zoom percentage, and centering using the [InfoBox](#).

1. [Select](#) the map for which you want to change the plot area.
2. From the Map menu, choose Plot.



3. Specify the options you want to change in the InfoBox.
4. (Optional) [Move, collapse, or close](#) the InfoBox.

Note To restore the map plot to its original view, select the map, then use Map - Reset to Original View.

{button ,AL('H_CHANGING_THE_PLOT_AREA_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_THE_VIEW_SCALE_OF_MAPS_STEPS;H_ADDING_AN_OVERLAY_STEPS;H_123_CHOOSING_THE_CENTER_OF_A_MAP_STEPS;H_MODIFYING_MAPS_OVER;H_REDRAWING_MAPS_STEPS;H_123_CHANGING_LEGEND_POSITION_STEPS',0)} [See related topics](#)

Details: Changing the plot area of a map

You can control a variety of the map plot's characteristics in the Basics tab of the [InfoBox](#). For example, if your data appears in one area of the map, you can recenter the map on that area and zoom in on it.

Maintain correct map dimensions

Maintain correct map dimensions -- Determines whether 1-2-3 automatically maintains the correct dimensions, or aspect ratio, of the map, even when you change the plot area. If you do not select this option, the dimensions may be distorted if you change the plot area. To redisplay a map with distorted dimensions correctly, select this option (default).

Caution Map - Reset to Original View does not restore the map to its original state after you turn off "Maintain correct map dimensions."

Plot position and size

- "Default settings" is selected until you move or resize the plot. Select this setting to return to the default position and size.
- "Custom settings" is selected when the plot area has been moved or resized.

Rotation

Lets you specify the number of degrees by which to rotate the map. For example, to rotate the map by 90°, enter 90.

Zoom %

Lets you specify the percentage to zoom in on the plot area. See also [Zooming in or out of a map](#).

Center

Determines the latitude and longitude for the center of the plot area. To recenter the map plot using the mouse, see [Choosing the center of a map](#).

Related SmartIcons

Decrease the display size of the map by 50% (zoom out)



Increase the display size of the map by 100% (zoom in)

{button ,AL('H_CHANGING_THE_PLOT_AREA_STEPS',1)} [Go to procedure](#)

Choosing the center of a map

If your data appears in one geographic area on the map, you may want to center that area in the map plot.

1. Select the map for which you want to change the plot area.
2. Point to the place in the map that you want to appear in the center.
3. Right-click the mouse on the place on the map that you want in the center.
4. From the shortcut menu, choose Recenter.

Tip It is often useful to recenter the map before you zoom in on it. For more information, see [Zooming in or out of a map](#).

```
{button ,AL('H_CHANGING_THE_VIEW_SCALE_OF_MAPS_STEPS;H_CHANGING_THE_PLOT_AREA_STEPS;H  
_MODIFYING_MAPS_OVER',0)} See related topics
```

Zooming in or out of a map

You can enlarge the map to view a portion of it in more detail, or shrink the map to see more of it or to make room for an [overlay](#).

Zooming in

To take a closer look at a portion of the map, choose Map - Zoom In to increase the display size of the map by 100%.



Tip To zoom in with the mouse, CTRL+drag to draw a rectangle around the area of the map you want to enlarge.

Zooming out

To see more of the map, choose Map - Zoom Out to decrease the display size of the map by 50%.



Restoring the map to its original state

To display the map as it was when it was created, choose Map - Restore to original size.



Note To specify how much you want to increase or decrease the display size of the map, use the Zoom % option on the [InfoBox](#) for plots (Basics tab).

```
{button ,AL('H_MODIFYING_MAPS_OVER;H_123_CHOOSING_THE_CENTER_OF_A_MAP_STEPS;H_CHANGING_THE_PLOT_AREA_STEPS;H_CHANGING_THE_PLOT_AREA_DETAILS',0)} See related topics
```

Redrawing maps

When you make a change to the data in a map data range, 1-2-3 automatically redraws the map. You can specify whether to redraw each map automatically or manually.

Redrawing maps automatically

1. Select the map that you want automatically redrawn.
2. From the Map menu, choose Map Properties.



3. Make sure "Redraw map automatically when data changes" is selected (the default setting) in the InfoBox. Each time you change the data for this map, it is automatically redrawn.

Redrawing maps manually

1. Select the map and choose Map - Map Properties.
2. Make sure "Redraw map automatically when data changes" is not selected.
3. (Optional) Move, collapse, or close the InfoBox.
4. Change the appropriate data in the map range.
5. Select the map.
6. From the Map menu, choose Redraw.



{button ,AL(`H_REDRAWING_MAPS_DETAILS',1)} See details
{button ,AL(`H_MODIFYING_MAPS_OVER',0)} See related topics

Details: Redrawing maps

Lessening the time needed to redraw maps

Maps are complex images that require the detailed drawing of many visual elements and sensitivity to changes in sheet data. Rendering a map that looks good and represents your data accurately can take time.

When you make changes to the data linked to maps, keep the following points in mind:

- Turning off "Redraw map automatically when the data changes" lets you decide when 1-2-3 can redraw a map.
- When "Redraw map automatically when the data changes" is turned on, 1-2-3 redraws a map after each change you make to the map data. If you need to make several changes to the data, first turn off the automatic redraw option. After you make all the changes, choose Map - Redraw, and 1-2-3 redraws the map once to reflect all the changes.
- If you have more than one map linked to the same set of data and "Redraw map automatically when the data changes" is on, 1-2-3 must redraw each map whenever you change the data. Once again, by turning off this option, you can reduce the interruption caused by the redrawing of maps.

Redrawing maps in 1-2-3 Release 5 files

When you open a 1-2-3 Release 5 workbook that contains maps set to manual redraw, each map is marked for manual redraw.

{button ,AL('H_REDRAWING_MAPS_STEPS',1)} Go to procedure

Changing a map title

You can change the text and position of the map title or hide the title.

1. Select the map for which you want to change the title.
2. From the Map menu, choose Title.



The specified title is shown in the InfoBox.

Tip You can also double-click the title and edit the text.

3. Change the specified title, or add another line to the title.
4. Change the position of the title, or hide it by deselecting "Show title."
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_CHANGING_THE_TITLE_DETAILS',1)} See details

{button ,AL('H_MODIFYING_MAPS_OVER;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_TEXT_FORMAT_STEPS',0)} See related topics

Details: Changing a map title

Specifying a new title in the sheet

You can also specify that the contents of a cell be the new title for the map by selecting "Cell" on the Basics tab of the InfoBox for map titles. Then enter the cell coordinates, or use the range selector to specify the coordinates that contain the title.

Seeing the entire title

When you enter a new map title, you overwrite the old. Depending on the length of the new title and the size of the map, you may need to also change the point size of the title text. Use the Text Format tab in the InfoBox to set title text point size.



{button ,AL('H_CHANGING_THE_TITLE_STEPS',1)} [Go to procedure](#)

Changing bin definitions for colors or patterns

You can change the values included in each bin that represents a map color or pattern. By default, the upper limit of each bin is computed from the map data range. For example, you may want the bins to use round numbers for the upper limits, such as 10,000 and 20,000.

You can also specify that each bin represents an exact value instead of a range of values, and you can use fewer than six bins.

Want the big picture? See [Presenting data in a map](#).

1. [Select](#) the map for which you want to change the bin values.
2. From the Map menu, choose Color Bins or Pattern Bins.
The bin values for the currently specified colors or patterns are shown in the [InfoBox](#).
3. Select "Manual" or "From range" from the "Values" list.
4. Change the specified bin values, or change the range that determines the bin values.
5. To use fewer than six bins, delete the values from one or more "Values" box.
6. Choose an option from the "Put in bins by" list.
7. (Optional) [Move, collapse, or close](#) the InfoBox.

Tip To return to six upper-limit bins, select "Computed" from the "Values" list.

{button ,AL('H_CHANGING_COLOR_AND_PATTERN_BIN_VALUES_DETAILS',1)} [See details](#)

{button ,AL('H_MODIFYING_MAPS_OVER;H_CHANGING_THE_DATA_COLORS_STEPS;H_CHANGING_THE_LEGEND_LABELS_STEPS;H_CHANGING_RANGE_ASSIGNMENTS_STEPS',0)} [See related topics](#)

Details: Changing bin definitions for colors or patterns

You can change the bin values for the map's colors and patterns by changing the values already specified or by specifying a different range to determine the bin values.

How 1-2-3 assigns bin values

By default, 1-2-3 assigns bin values based on the number and types of data items that need to be mapped. 1-2-3 can create up to six color bins and six pattern bins. You can map either values or labels to either colors or patterns.

Number of items	Type	Bins
6 or fewer	Values	One bin for each exact value
More than 6	Values	Groups into bins by upper limit
6 or fewer	Labels	One bin for each label
More than 6	Labels	Bins created only for first six unique labels

Changing the specified bin values

To change a bin value that has already been specified, select "Manual" from the "Values" list, and enter the new bin value in the box next to the bin you want to change.

Changing the range that determines the bin values

To change a range in the sheet that determines the bin values, select "From Range" from the "Values" list. Then, enter the range in the "Values range" box at the bottom of the same column, or use the [range selector](#) to specify the range.

Using upper limits or exact matches to define bins

If you select "Manual" or "From Range" from the "Values" list, you can select an option from the "Put in bins by" list:

- "Upper limit" -- For each bin, the value in the "Value" box is the upper limit of a range of values. Map regions with values that are less than or equal to the bin value but greater than the previous bin value display the bin's color or pattern.
- "Exact value" -- For each bin, only the map regions with values that exactly match the value in the bin's "Value" box display the bin's color or pattern.

How 1-2-3 formats numbers

1-2-3 applies the number format of the first cell in the color range to the color bin values, and the format of the first cell in the pattern range to the pattern bin values.

{button ,AL('H_CHANGING_COLOR_AND_PATTERN_BIN_VALUES_STEPS',1)} [Go to procedure](#)

Changing map legend labels

You can change the text of each legend label. When the color or pattern range contains more than six values, the default legend label is the value used to define the upper limit of a bin.

1. Select the map for which you want to change the legend labels.

2. From the Map menu, choose Color Bins or Pattern Bins.

The legend labels currently specified for each bin are shown in the right-hand column of the InfoBox.

3. Select "Manual" or "From range" from the "Legend labels" list.

4. Change the specified legend label, or change the range that determines the legend label.

{button ,AL(`H_CHANGING_THE_LEGEND_LABELS_DETAILS`,1)} See details

{button ,AL(`H_MODIFYING_MAPS_OVER;H_CHANGING_COLOR_AND_PATTERN_BIN_VALUES_STEPS;H_CHANGING_RANGE_ASSIGNMENTS_STEPS;H_123_CHANGING_LEGEND_POSITION_STEPS`,0)} See related topics

Details: Changing map legend labels

You can change legend labels by changing the labels already specified, or by specifying a range that determines the labels.

Changing a specified legend label

To change a legend label that has already been specified, select "Manual" from the "Legend labels" list and enter the new label in the box that refers to the bin you want to change.

Specifying a range that determines the legend labels

To specify a range in the sheet that determines the legend labels, select "From Range" from the "Legend labels" list. Then, enter the range in the "Legends range" box at the bottom of the same column, or use the [range selector](#) to specify the range.

{button ,AL('H_CHANGING_THE_LEGEND_LABELS_STEPS',1)} [Go to procedure](#)

Changing map legend position

You can change where and how the legend appears.

1. Select the map for which you want to change the legend position.
2. From the Map menu, choose Legend.



3. To hide the color and/or the pattern legend, select the appropriate check box in the InfoBox.
4. To display the legend on top of the map plot, select "Place inside plot area."
5. To change the position of the legend, select one of the Position buttons.
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_MODIFYING_MAPS_OVER;H_CHANGING_THE_LEGEND_LABELS_STEPS;H_CHANGING_THE_PLOT_AREA_STEPS',0)} See related topics

Changing bin colors or patterns

You can change the colors or patterns used to map different data by selecting new colors or patterns, or by specifying a range in the sheet.

1. Select the map for which you want to change the colors or patterns.

2. From the Map menu, choose Color Bins or Pattern Bins.

The colors or patterns currently specified for each bin are shown in the left-hand column of the InfoBox.

3. Select "Manual" or "From range" from the "Colors" or "Patterns" list.

4. Change the specified colors or patterns, or change the range that determines the colors or patterns.

5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_CHANGING_THE_DATA_COLORS_DETAILS',1)} See details

{button ,AL('H_CHANGING_COLOR_AND_PATTERN_BIN_VALUES_STEPS;H_MODIFYING_MAPS_OVER',0)}
See related topics

Details: Changing bin colors or patterns

Changing a specified color or pattern

To change a color that is already specified, select "Manual" from the "Colors" list, click the bin color you want to change, and select a new color from the pop-up palette.

To change a pattern that is already specified, select "Manual" from the "Patterns" list, click the bin pattern you want to change, and select a new pattern.

Specifying the range that determines a color or pattern

To specify a range in the sheet that determines the colors, select "From Range" from the "Colors" list. Then, enter the range in the "Colors range" box at the bottom of the same column, or use the [range selector](#) to specify the range.

This range must contain values that correspond to the color palette. Valid values for this range are 0 through 239.

To specify a range in the sheet that determines the patterns, select "From Range" from the "Patterns" list. Then, enter the range in the "Patterns range" box at the bottom of the same column, or use the range selector to specify the range. Valid values for this range are 0 through 6.

{button ,AL('H_CHANGING_THE_DATA_COLORS_STEPS',1)} [Go to procedure](#)

Overlaying additional map areas

You can add an overlay to a map to provide a broader context or more detail to the presentation of the sheet data you're mapping. For example, to show Canada and Mexico in a map of the United States, you overlay a map of the world, then zoom in or out as necessary.

Want the big picture? See [Presenting data in a map.](#)

1. Select the map to which you want to add an overlay.
2. From the Map menu, choose Overlays.



3. Click Add in the Overlays panel of the InfoBox.

The Add Overlay dialog box appears, showing all installed map files.

4. Click the name of the overlay you want to add.
5. Click Open.

1-2-3 adds the selected overlay to the map and lists the name of the overlay in the InfoBox.

Tip Zoom in or out of the map to show as much of the original map and overlay as you want.

6. (Optional) Move, collapse, or close the InfoBox when you have added all the appropriate overlays.

{button ,AL('H_ADDING_AN_OVERLAY_DETAILS',1)} [See details](#)

{button ,AL('H_MODIFYING_MAPS_OVER;H_REMOVING_AN_OVERLAY_STEPS;H_CHANGING_THE_VIEW_SCALE_OF_MAPS_STEPS;H_123_CHOOSING_THE_CENTER_OF_A_MAP_STEPS',0)} [See related topics](#)

Details: Overlaying additional map areas

Seeing the overlays

You can add several overlays to a map. Depending on the geographic position of the countries in the overlay in relation to the countries in the original map, the overlay countries may not appear in the plot area. To see the entire map and overlay, you might have to choose Map - Zoom Out.

Related SmartIcons



Decrease the display size of the map by 50% (zoom out)



Increase the display size of the map by 100% (zoom in)

{button ,AL('H_ADDING_AN_OVERLAY_STEPS',1)} [Go to procedure](#)

{button ,AL('H_CHANGING_THE_VIEW_SCALE_OF_MAPS_STEPS',0)} [See related topics](#)

Removing an overlay from a map

You can remove an overlay that is added to a map.

1. Select the map from which you want to remove an overlay.
2. From the Map menu, choose Overlays.



A list of overlays that have been added to the current map is displayed in the InfoBox.

3. Click the name of the overlay you want to remove.
4. Click Remove.

{button ,AL('H_ADDING_AN_OVERLAY_STEPS;H_MODIFYING_MAPS_OVER',0)} [See related topics](#)

1-2-3 menus

Click a menu name below to see descriptions of each command on that menu.

File

Open, save, print, and close files; manage add-ins, defaults, and SmartIcons; access Internet, and team features.

Edit

Rearrange data and objects, manage links, and create and edit scripts.

View

Control the display settings for the sheet, workbook, and 1-2-3.

Create

Create sheets, graphic objects, and @functions; embed data from other applications.

Sheet

Work with sheets and outlines.

Window

Control how 1-2-3 displays windows.

Help

Open 1-2-3 Help; access Lotus Support on the Internet.

The Context menu

The context menu changes depending on what you have selected or what you are doing.



Actions

List NotesFlow and Script commands that relate to an object embedded in 1-2-3 when you publish a Notes action to that object.

Chart

Set data ranges, change chart types, and enhance charts.

Drawing

Work with, arrange, and script drawn objects.

Map

Work with maps.

<Name of control >

Work with ActiveX and JavaBean controls.

<OLE object >

Work with and arrange embedded OLE objects.

Preview

Zoom in or out, or manipulate the preview window.

Query

Create and work with DQA query tables. This menu appears after you load the Data Query Add-In.

Query Table

Work with query tables.

Range

Work with and analyze ranges of data.

Web Table

Work with Web tables.

{button ,AL(`;H_CANCELING_A_COMMAND_STEPS;H_UNDOING_A_COMMAND_STEPS;H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS;H_WAYS_TO_PERFORM_TASKS_OVER',0)} [See related topics](#)

Actions menu

NotesFlow command 0 - n

Use NotesFlow commands that relate to a 1-2-3 embedded object. These commands are run from Notes.

Promoted Script commands...

List of LotusScript subroutines promoted to the menu in the Global Script Options dialog box.

Chart menu

Chart Type

Choose a chart type.

Chart Style >

- Apply
Apply a chart style.
- Create
Create a chart style.
- Set Default Chart
Set a default chart type and style.
- Change Path
Specify a Chart Style directory.

<Chart object> Properties

View and modify properties of the selected chart or portion of a chart.

Title

View and modify title properties.

Legend

View and modify legend properties.

Axes & Grids >

- X-Axis & Grids
View and modify x-axis and grid properties.
- Y-Axis & Grids
View and modify y-axis and grid properties.
- 2nd Y-Axis & Grids
View and modify second y-axis and grid properties. This command appears only when the selected chart includes a second y-axis.
- Z-Axis & Grids
View and modify z-axis and grid properties. This command appears only when the selected chart includes a z-axis.

Series

View and modify series properties.

Series Labels

View and modify series labels properties.

Plot

View and modify plot properties.

Note

View and modify note properties.

Table

View and modify table properties.

Ranges

View and modify the ranges on which the chart is based.

Bring to Front

Put the selected chart(s) in front of all other objects.

Send to Back

Put the selected chart(s) behind all other objects.

Create menu

Sheet

Add one or more sheets to the current workbook.

Chart

Create a chart using the selected range.

Map

Create a map using the selected range.

Database >

- Query Table
Create a Lotus Approach query table by extracting records from a database table.
- Form
Create a Lotus Approach form.
- Report
Create a Lotus Approach report.
- Dynamic Crosstab
Create a Lotus Approach dynamic crosstab.
- Mailing Labels
Create Lotus Approach mailing labels.
- Form Letter
Create a Lotus Approach form letter.

Text

Create a text block.

Button

Create a button to run a script or macro.

Drawing >

- Line
Draw a line.
- Polyline
Draw a segmented line.
- Arrow
Draw an arrow.
- Rectangle
Draw a rectangle or square.
- Rounded Rectangle
Draw a rounded rectangle or square.
- Arc
Draw an arc.
- Ellipse
Draw an ellipse or circle.
- Polygon
Draw a polygon.
- Freehand
Draw freehand.

- Picture
Add a picture.

@Function

Create a custom @function.

Hyperlink

Create or edit hyperlinks.

Object

Embed data from another application in 1-2-3.

Drawing menu

Drawing Properties

View and modify drawn object properties.

Bring to Front

Put the selected object(s) in front of all others.

Send to Back

Put the selected object(s) behind all others.

Group

Group the selected objects.

Ungroup

Ungroup the selected group.

Flip Left-Right

Flip the selected object(s) horizontally.

Flip Top-Bottom

Flip the selected object(s) vertically.

Reset to Original Size

Show the selected picture in its original size. This menu choice appears only when a picture is selected.

Edit menu

Undo

Reverse the effect of the most recently executed command or action.

Cut

Delete data and related styles from the sheet and place them on the Clipboard.

Copy

Copy data and related styles from the sheet to the Clipboard.

Paste

Paste the contents of the Clipboard to the sheet.

Clear

Delete the contents, formatting, borders, cell comments, or scripts from the selected range or object without using the Clipboard.

Clear Styles

Delete formatting from a cell or range.

Paste Special

Controls how 1-2-3 pastes and formats data from the Clipboard into the sheet.

Paste Link

Paste data on the Clipboard into the sheet as a formula, file link, or OLE link.

Copy Down

Copy the contents of the top row in the selection to fill the entire selection.

Copy Right

Copy the contents of the leftmost column in the selection to fill the entire selection.

Page Break

Create or delete vertical or horizontal page breaks.

Go To

Go to and select an item.

Find & Replace

Find or replace specified characters in labels and formulas.

Check Spelling

Find and correct misspelled or duplicate words.

Manage Links

Update 1-2-3 file links, or maintain DDE and OLE links.

Scripts & Macros >

- Run
Run or debug a script or macro.
- Record Script/Stop Recording
Create a script by recording keystrokes and mouse actions; if you are recording a script, stop recording and show the Script Editor.
- Show Script Editor

Edit a script.

- Show Dialog Editor

Show the dialog editor.

- Global Script Options

Add a script to the Actions menu, or assign it to a quick key.

File menu

New Workbook

Create a new workbook.

Open

Open an existing workbook.

Close/Close & Return to <application>

Close the current file or active window, or close a 1-2-3 worksheet object embedded in another application file and return to that other application.

Save/Update <file name>

Save the current workbook. Update appears only when the current document is embedded in another application; it updates the current document in the file in which it is embedded.

Save As

Save a workbook with a name you specify or save part of this workbook; assign a password to files.

Add-Ins >

- Manage Add-Ins
Load, unload, or register an add-in.
- Create Add-In
Create an add-in.

TeamMail

Create a mail message or route this workbook using your mail system.

TeamReview

Distribute workbook for review; read and write comments; end the review session.

TeamConsolidate >

- Merge Versions
Combine versions and version groups from team members.
- Share Sheets using Notes
Distribute workbook sheets to team members and consolidate their updates using Lotus Notes.

Internet >

- Convert to Web Pages
Save a range as an HTML table or print snapshot on the Web.
- Get Data from Web
Bring a table of data from the Web into 1-2-3.
- Refresh Web Data
Refresh Web data.
- Setup
Set options for connecting to the Internet.

Get/Release Reservation

Get or release the reservation for the current workbook.

Print

Print a range or ranges of data, or change the page layout.

Preview & Page Setup

Preview the print selection, and set headers, footers, and page orientation.

Workbook Properties

View and modify properties for the current workbook.

User Setup >

- 1-2-3 Preferences
Customize the behavior of 1-2-3.
- SmartIcons Setup
Move and modify sets of SmartIcons, and create SmartIcons.
- SmartFill Setup
Create and maintain custom lists.
- SmartLabel Setup
Create and maintain SmartLabels.

Exit 1-2-3/Exit 1-2-3 & Return to <file name>

End the 1-2-3 session.

<List of most recently used files>

Open an existing file.

Help menu

Help Topics

Display the online Help window's Contents, Index, and Find tabs.

Ask the Expert

Display the Expert.

QuickDemos

Display a list of QuickDemos.

Lotus Internet Support

- Lotus Home Page
Go to the Lotus home page on the Internet.
- Lotus Customer Support
Go to the Lotus customer support page on the Internet.
- Lotus FTP Site
Go to the Lotus FTP site on the Internet.

Microsoft Excel Menu Finder>

Open the Microsoft Excel Menu Finder.

Year 2000

Display Help topics about the year 2000.

About 1-2-3

Display release and copyright information.

Map menu

<Map object> Properties

View and modify properties of the selected map or portion of a map.

Ranges

Set or change the properties of the range assignments.

Color Bins

Set or change the properties of the color bins.

Pattern Bins

Set or change the properties of the pattern bins.

Title

Set or change the properties of the title.

Legend

Set or change the properties of the legend.

Overlays

Add or remove overlays.

Plot

Set or change the properties of the plot area.

Zoom In

Increase the display size of the map by 100%.

Zoom Out

Decrease the display size of the map by 50%.

Reset to Original View

Display the map in its original size.

Redraw

Redraw selected maps.

Bring to Front

Put the selected map(s) in front of all other objects.

Send to Back

Put the selected map(s) behind all other objects.

Preview menu

Preview & Page Setup Properties

View and modify preview and page setup properties.

Previous Page

Show the previous page of the print selection in the Preview window.

Next Page

Show the next page of the print selection in the Preview window.

One Page View

Show one page of the print selection in the Preview window.

Two Page View

Show two facing pages of the print selection in the Preview window.

Four Page View

Show four pages of the print selection in the Preview window.

Nine Page View

Show nine pages of the print selection in the Preview window.

Hide/Show Margins

Hide or show margins in the Preview window.

Query menu

The Query menu appears after you load the Data Query Add-in (DQA).

Select Query Table

Go to and select an existing DQA query table.

New Query

Create a DQA query table by extracting records from a database table.

Set Criteria

Set criteria to determine which records appear in a DQA query table.

Choose Fields

Select and arrange fields in a DQA query table; create a computed column.

Sort

Sort records in a DQA query table.

Aggregate

Calculate values using groups of records in a DQA query table.

Name

Rename a DQA query table.

Set Options

Update the source database table; set update and refresh options, unique records, and maximum records for a DQA query table.

Show SQL

Show the SQL command equivalent for the selected DQA query table.

Set Database Table

Select a different source database table for the current DQA query table.

Join

Query multiple database tables that have a common field.

Refresh Now

Update the records in a DQA query table with changes in the source database table.

External Tables >

- Connect to External
Connect to an external database table.
- Disconnect from External
Disconnect from an external database table.
- Send SQL
Send an SQL command to an external database table.
- Create table
Create an external database table.

Query Table menu

Query Table Properties

View and modify query table properties.

Edit

Switch to Edit mode to find, sort, and edit records.

Refresh

Update records in a query table.

Output Range

Specify or change the output range.

Range menu

Range Properties

View and modify range properties.

Insert/Insert Columns/Insert Rows

Insert blank cells, columns, or rows.

Delete/Delete Columns/Delete Rows

Delete cells, columns, or rows.

Name

Create and delete range names.

Version >

- Version Properties
View and modify version properties.
- New Version
Create a new version of the selected range.
- Display Version
List versions in the current workbook, and select a version to display.
- Delete Version
Delete a version from the workbook.
- Version Groups
Create, edit, show, and delete groups of versions.
- Report
Report on selected versions and their effects on formula results.

Fill

Enter values, dates, times, or a custom sequence in a range.

Sort

Sort data in a range in ascending or descending order.

Analyze >

- What-if Table
Create a table showing the results of changing variables in formulas.
- Backsolver
Work backwards from a formula result to find values for variables.
- Distribution
Create a frequency distribution of the values in a range.
- Regression
Perform multiple linear regression analysis.
- Invert Matrix
Invert a square matrix.
- Multiply Matrix
Multiply two ranges as matrixes.

Cell Comment

Add or modify a cell comment.

Transpose

Copy a range, transposing the layout of the data.

Parse

Convert a column of long labels into one or more columns of data.

Fast Format

Apply the current range's formatting to other ranges.

Sheet menu

Sheet Properties

View and modify sheet properties.

Move or Copy Sheet

Move or copy the selected sheet.

Delete Sheet

Delete the selected sheets.

Outline >

- Demote/Demote Columns/Demote Rows
Demote selected columns or rows down one outline level.
- Promote/Promote Columns/Promote Rows
Promote selected columns or rows up one outline level.
- Expand/Expand Columns/Expand Rows
Expand columns or rows in the selected range.
- Collapse/Collapse Columns/Collapse Rows
Collapse columns or rows in the selected range.
- Clear Outline
Clear outlines for the entire sheet.

Hide

Hide the selected sheet(s).

Unhide

Show hidden sheet(s).

Group Sheets/Clear Sheet Group

Group sheets, or ungroup all grouped sheets.

View menu

Zoom to Custom Level (xx%)

Reset the display of cells to the default (not shown in Preview mode).

Zoom to >

(These commands do not appear in Preview mode.)

- 25%
Display the sheet at 25% of full size.
- 50%
Display the sheet at 50% of full size.
- 75%
Display the sheet at 75% of full size.
- 100%
Display the sheet at 100% of full size.
- 200%
Display the sheet at 200% of full size.

Hide/Show SmartIcons

Hide or show SmartIcons.

Hide/Show Internet Tools

Hide or show the Internet SmartIcons.

Hide/Show Status Bar

Hide or show the status bar.

Hide/Show Edit Line

Hide or show the edit line.

Titles

Freeze columns and rows as sheet titles, or unfreeze the sheet titles.

Split/Clear Split

Split the window into two or four panes, or restore a split window to one pane.

Synchronize Split/Unsynchronize Split

Scroll the panes of a split window together or independently (appears only when the window is split).

Set View Preferences

View or modify the properties of the current workbook.

Design/Run controls

Switch between Design and Run mode for controls.

Note This menu command appears only if the setting in View Preferences is enabled.

Web Table menu

Web Table Properties

View and modify Web table properties.

Refresh Now

Update data from the Web.

Break Connection to Web

Break the link to the URL.

Window menu

New Window

Create a new window for the current workbook.

Tile Left-Right

Size and arrange open windows side by side.

Tile Top-Bottom

Size and arrange open windows top to bottom.

Cascade

Size and stack open windows diagonally.

<List of open windows>

See a list of windows open in 1-2-3.

More Windows...

See a complete list of windows open in 1-2-3, if you have more than nine windows open.

<Name of control> menu

This menu displays the name of the selected ActiveX or JavaBean control.

Object Properties

View and modify control properties.

Edit

Apply command to the <name of control> object.

<Name of control> Properties

Note This command appears on the menu only if the object supports it.

Bring to Front

Put the selected object(s) in front of all others.

Send to Back

Put the selected object(s) behind all others.

Group

Group the selected objects.

Ungroup

Ungroup the selected group.

<OLE object> menu

This menu displays the name of the selected OLE object.

<OLE object> Properties

View and modify object properties.

<Verb 0 - n>

Use one or more registered verbs for the embedded object.

Edit

Edit the embedded object.

Open

Open the embedded object.

Bring to Front

Put the selected object(s) in front of all other objects.

Send to Back

Put the selected object(s) behind all other objects.

Group

Group the selected objects.

Ungroup

Ungroup the selected group.

Moving using the Clipboard

The [Clipboard](#) is useful when you want to move data to more than one location.

Note You cannot move a sheet using the Clipboard. See [Moving a sheet](#).

1. [Select](#) what you want to move.
2. From the Edit menu, choose Cut.



- 1-2-3 places a copy of your selection on the Clipboard and deletes your original selection.
3. Select the destination for the data.

Caution If you're moving a range, 1-2-3 writes over any existing data in the destination range, including data in hidden columns, rows, or sheets.

4. From the Edit menu, choose Paste.



Note If you're moving a formula, 1-2-3 keeps [relative references](#) the same only the first time you paste. In subsequent pastes, 1-2-3 adjusts the relative references to the new location.

{button ,AL('H_MOVING_USING_THE_CLIPBOARD_DETAILS',1)} [See details](#)

{button ,AL('H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_IN_A_SHEET_STEP
S;H_COPYING_AND_MOVING_OVER;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_123_S98_MOVING
_A_SHEET_STEPS',0)} [See related topics](#)

Details: Moving using the Clipboard

Shortcut for pasting data

You can select the destination and press ENTER to paste the data. Pressing ENTER works only once after each cut or copy. If you choose a command or run a macro or script before pressing ENTER, the ENTER key will not paste the data.

Selecting the destination

If you cut a range, the destination must be a range. If you cut a graphic object, the destination can be a range or graphic object.

How moving ranges affects attached scripts

To move a script attached to a range, you must move the top left or bottom right corner of the scripted range. 1-2-3 only moves a script attached to a cell or range if you move it within a workbook using drag and drop or Edit - Cut and Edit - Paste.

To edit scripts and move them between workbooks, use the Integrated Development Environment (IDE). See Overview: Using LotusScript for more information.

About the destination range

You need to select only one cell of the destination range. 1-2-3 treats that cell as the top left cell of the destination and will paste all the data in its original size and layout. 1-2-3 pastes all the data, regardless of the size of the destination range.

If you copy a single cell into a destination range that is larger than one cell, 1-2-3 repeats the data until the destination range is full. However, If you cut a single cell and the destination range is larger than one cell, 1-2-3 does not repeat the data to fill the rest of the destination range.

Pasting text into a text block

To paste text into a text block, double-click the text block and use CTRL+V instead of Edit - Paste.

Related SmartIcons



Pastes the properties you specify



Pastes a 1-2-3 file link or an OLE link

{button ,AL('H_MOVING_USING_THE_CLIPBOARD_STEPS',1)} [Go to procedure](#)

Move or Copy Sheet dialog box

Use this dialog box to move or copy entire sheets.

Choose a task

Moving a sheet

Copying a sheet

Moving a sheet

There are two ways to move a sheet within a 1-2-3 workbook.

Note You can move only one sheet at a time, and you cannot move sheets between workbooks.

Using the mouse to move a sheet (drag and drop)

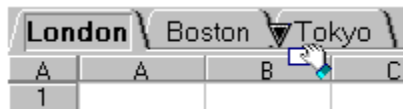


[Show me a QuickDemo](#)

1. Move the mouse pointer to the edge of the tab for the sheet you want to move.
2. The mouse pointer changes to a hand.



3. Drag the sheet to a new location.



4. When the triangle is in the correct location, release the mouse button.



1-2-3 moves the sheet, the data, and associated range names to the new location.

Tip To move a sheet to a location that is not visible in the window, drag the sheet over the sheet scroll buttons.



Using the menu to move a sheet

1. From the Sheet menu, choose Move or Copy Sheet.
2. Choose "Move."
3. In the "Sheet" box on the left, select the sheet you want to move.
1-2-3 lists all sheets except hidden sheets. You cannot move hidden sheets.
4. Choose "Before" or "After."
5. In the "Sheet" box on the right, select where you want to move the sheet.
6. Click OK.

1-2-3 moves the sheet, the data, and associated range names to the new location.

{button ,AL('H_123_S98_MOVING_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_123_COPYING_A_SHEET_STEPS;H_COPYING_AND_MOVING_OVER;H_COPYING_AND_MOVING_FORMULAS_OVER',0)} [See related topics](#)

Details: Moving a sheet

What happens to formulas?

Formulas adjust just as they do when you move them within a sheet. For more information on moving formulas, see [Overview: Copying and moving formulas](#).

What happens to scripts?

1-2-3 moves scripts attached to graphic objects and ranges with the sheet, as long as the ranges are not 3D ranges.

How 1-2-3 names a sheet when you move it

If you move a sheet with a letter name like A, B, or C, 1-2-3 assigns a letter to the sheet that is appropriate for its position within other sheets. For example, suppose you move sheet D in front of sheet B, the sheet letters adjust to their new positions. Sheet D becomes B, sheet B becomes C, and sheet C becomes D.

If you move a sheet with an assigned name like Expenses, that name does not change.

Moving a sheet that is part of a 3D version

A 3D [version](#) is a version that contains a range spanning two or more contiguous sheets.

- You can move a sheet into the middle of a 3D version.
- You cannot move or rearrange sheets that are part of a 3D version.

Moving a sheet into grouped sheets

If you move a sheet into a set of grouped sheets, the sheet you moved will lose its formatting and use the formats of the grouped sheets.

Turning drag and drop on and off

If drag and drop is turned off, the mouse pointer will not change to a hand when you try to drag and drop a sheet. To turn drag and drop back on, choose File - User Setup - 1-2-3 Preferences (General tab) and select "Drag and drop cells and sheets."

Notes

- You cannot move a sheet if the workbook is locked.
- You cannot move a sheet if the Preview window is open.

{button ,AL('H_123_S98_MOVING_A_SHEET_STEPS',1)} [Go to procedure](#)

Overview: Range names

You can name a range and use the range name in place of the range address. Range names are easy to remember and convenient to use in dialog boxes, the InfoBox, scripts, macros, formulas, and @functions.

B	A	B	C
1		Hats	
2	Spring	355	
3	Summer	730	
4	Fall	480	
5	Winter	615	
6		@SUM(HATS)	
7			

The name of this range is Hats

This @function uses the range name Hats

Ways to use range names

Use range names to identify and select important ranges, and to make formulas easier to write and understand.

Finding and selecting ranges with range names

Using the navigator is an easy way to find and select a named range. Click the navigator to display a list of all named ranges in the current workbook. Then, click a range name in the list to find and select the range. When the range is selected in the workbook, the range name appears in the selection indicator.



Writing and editing formulas with range names

When you are entering or editing a formula or @function, you can add a range name to the formula by clicking the navigator and selecting the name. In addition, when you name a range, 1-2-3 substitutes the range name for the address in any existing formulas that reference the range.

Specifying ranges with range names

Using F3 (NAME) is an easy way to insert a range name in a dialog box. When the insertion point is in a field that requires a range address or name, press F3 (NAME) to display a dialog box that lists named ranges in all active workbooks. To insert the range name, just select it from the list, and click OK. You can also click the range selector in a dialog box or the InfoBox, then click the navigator button to display a list of range names.

Range names and versions

You also use range names when creating versions. Only a named range can have versions.

{button ,AL('H_DELETING_RANGE_NAMES_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;H_NAMING_A_RANGE_STEPS;H_NAMING_A_RANGE_USING_ADJACENT_LABELS_STEPS;H_NAMING_A_RANGE_USING_THE_INFOBOX_STEPS;H_NAMING_CONVENTIONS_OVER;H_WORKING_WITH_VERSIONS_OVER',0)} See related topics

Naming a range

Naming a range makes it easier to find, select, and use in formulas. Use range names in place of range addresses when you need to specify a range.

Want the big picture? See [Overview: Range names](#)



[Show me a QuickDemo](#)

1. [Select](#) the range you want to name.
2. From the Range menu, choose Name.
3. Enter a range name in the "Name" box according to the [naming conventions](#).
4. (Optional) To name another range, click Add, use the [range selector](#) to select the range, and then repeat step 3.
5. Click OK.

{button ,AL('H_NAMING_A_RANGE_DETAILS',1)} [See details](#)

{button ,AL('H_NAMING_A_RANGE_USING_THE_INFOBOX_STEPS;H_DELETING_RANGE_NAMES_STEPS;H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_NAMING_A_RANGE_USING_ADJACENT_LABELS_STEPS;',0)} [See related topics](#)

Details: Naming a range

Multiple names for the same range

You can give a range more than one name. If you give a range an additional name, formulas that contain the range will use the range name that comes first alphabetically.

If the range you selected has more than one name, the name that is first alphabetically appears in the InfoBox.

The number of range names that you create in a workbook is limited only by the amount of available memory.

Tips for using range names

You cannot use the same name for more than one range in the same workbook.

You can use the navigator to display a list of all named ranges in the current workbook. To find and select a named range in the current workbook, just click the navigator and select the name from the list. When the range is selected in the workbook, the range name appears in the selection indicator.



When you are editing a formula, you can add a range name to the formula by clicking the navigator and selecting the name you want from the list of range names in the current workbook.

Using F3 (NAME) is an easy way to insert a range name in a dialog box. When your insertion point is in a field that requires a range address or name, press F3 (NAME) to display a dialog box that lists named ranges in all active workbooks. To insert the range name, just select it from the list, and click OK.

Range names in formulas

After you name a range, 1-2-3 substitutes the range name for the address in any existing formulas that reference the range.

Saving range names with a workbook

When you save a workbook, 1-2-3 saves the range names with the workbook.

{button ,AL('H_NAMING_A_RANGE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;H_USING_FORMULAS_OVER;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS',0)} [See related topics](#)

Naming a range using adjacent labels

A convenient method for naming one or more single-cell ranges is to use labels in adjacent cells. The labels identify the cells in the sheet and you avoid typing errors.

Want the big picture? See [Overview: Range names](#)



[Show me a QuickDemo](#)

1. Select the range containing the labels you want to use as range names.

Use the labels in A1, A2, and A3...

...to name the adjacent cells in B1, B2, and B3

B	A	B	C
1	Principal	120,000	
2	Interest	12%	
3	Term	30	
4			

2. From the Range menu, choose Name.
3. Select an option from the "For cells" list.
4. Click Use Labels.
5. Click Done.

{button ,AL('H_NAMING_A_RANGE_USING_ADJACENT_LABELS_DETAILS',1)} [See details](#)

{button ,AL('H_NAMING_A_RANGE_USING_THE_INFOBOX_STEPS;H_DELETING_RANGE_NAMES_STEPS;H_NAMING_A_RANGE_STEPS;H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS',0)} [See related topics](#)

Details: Naming a range using adjacent labels

Options for adjacent labels

The options in the "For cells" list indicate which single-cell ranges you want to name using adjacent labels.

- To the right -- Names single-cell ranges to the right of the labels. For example, labels in column A name adjacent cells in column B.
- To the left -- Names single-cell ranges to the left of the labels. For example, labels in column B name adjacent cells in column A.
- Above -- Names single-cell ranges above the labels. For example, labels in row 2 name adjacent cells in row 1.
- Below -- Names single-cell ranges below the labels. For example, labels in row 1 name adjacent cells in row 2.

Naming conventions for labels

The labels that you enter to use as range names must follow the [naming conventions](#).

Tips for using range names

You can use the navigator to display a list of all named ranges in the current workbook. To find and select a named range in the current workbook, just click the navigator and select the name from the list. When the range is selected in the workbook, the range name appears in the selection indicator.



When you are editing a formula, you can add a range name to the formula by clicking the navigator and selecting the name.

Using F3 (NAME) is an easy way to insert a range name in a dialog box. When your insertion point is in a field that requires a range address or name, press F3 (NAME) to display a dialog box that lists named ranges in all active workbooks. To insert the range name, just select it from the list, and click OK.

Range names in formulas

After you name a range, 1-2-3 substitutes the range name for the address in any existing formulas that reference the range.

Saving range names with a workbook

When you save a workbook, 1-2-3 saves the range names with the workbook.

{button ,AL('H_NAMING_A_RANGE_USING_ADJACENT_LABELS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_FORMULAS_OVER;H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;',0)} [See related topics](#)

Naming a range using the InfoBox

You can name the selected range in the InfoBox instead of using Range - Name.

Want the big picture? See [Overview: Range names](#)

1. [Select](#) the range you want to name.
2. From the Range menu, choose Range Properties.
3. Click the Basics tab in the InfoBox.



4. Enter a range name in the "Range name" box according to the [naming conventions](#).
5. (Optional) [Move, collapse, or close](#) the InfoBox.

Note When a named range is selected, its name appears in the Basics panel of the InfoBox.

{button ,AL('H_NAMING_A_RANGE_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

{button ,AL('H_NAMING_A_RANGE_STEPS;H_DELETING_RANGE_NAMES_STEPS;H_NAMING_A_RANGE_USING_ADJACENT_LABELS_STEPS;H_USING_THE_INFOBOX_STEPS;H_THE_INFOBOX_OVER',0)} [See related topics](#)

Details: Naming a range using the InfoBox

Multiple names for the same range

You can give a range more than one name. If you give a range an additional name, formulas that contain the range will use the range name that comes first alphabetically.

If the range you selected has more than one name, the name that is first alphabetically appears in the InfoBox.

The number of range names that you create in a workbook is limited only by the amount of available memory.

Tips for using range names

You cannot use the same name for more than one range in the same workbook.

You can use the navigator to display a list of all named ranges in the current workbook. To find and select a named range in the current workbook, just click the navigator and select the name from the list. When the range is selected in the workbook, the range name appears in the selection indicator.



When you are editing a formula, you can add a range name to the formula by clicking the navigator and selecting the name.

Using F3 (NAME) is an easy way to insert a range name in a dialog box. When your insertion point is in a field that requires a range address or name, press F3 (NAME) to display a dialog box that lists named ranges in all active workbooks. To insert the range name, just select it from the list, and click OK.

Range names in formulas

After you name a range, 1-2-3 substitutes the range name for the address in any existing formulas that reference the range.

Saving range names with a workbook

When you save a workbook, 1-2-3 saves the range names with the workbook.

{button ,AL('H_NAMING_A_RANGE_USING_THE_INFOBOX_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;H_USING_FORMULAS_OVER;H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;',0)} [See related topics](#)

Deleting range names

You can delete any range name in the current workbook, leaving the data in the range unchanged.

1. From the Range menu, choose Name.
2. To delete individual range names, select a name in the "Existing named ranges" box and click Delete.
3. To delete all range names in the current workbook, click Delete All.

Caution After clicking Delete or Delete All, you cannot restore the deleted range names in the Name dialog box. To restore deleted range names, use Edit - Undo immediately after closing the dialog box.

4. Click OK.

{button ,AL(`H_DELETING_RANGE_NAMES_DETAILS',1)} [See details](#)

{button ,AL(`H_NAMING_A_RANGE_STEPS;H_RANGE_NAMES_OVER;',0)} [See related topics](#)

Details: Deleting range names

Other ways to delete range names

You can also use the InfoBox to delete a range name. Select the range whose name you want to delete and choose Range - Range Properties; then click the Basics tab and delete the name in the "Range name" box.

How deleting range names affects formulas

If you delete a range name used in a formula, 1-2-3 replaces the range name with the associated range address.

For example, if SALES is the name of B14..H14, and you delete the name SALES, 1-2-3 changes @SUM(SALES) to @SUM(B14..H14).

How deleting range names affects versions

A named range can have one or more versions, and only named ranges can have versions. You cannot delete the range name of a range that has versions. You must delete all the versions before deleting the range name.

{button ,AL('H_DELETING_RANGE_NAMES_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;H_USING_FORMULAS_OVER;H_WORKING_WITH_VERSIONS_OVER;',0)} [See related topics](#)

Naming conventions

Use the following conventions when naming ranges, sheets, Web tables, query tables, and graphic objects, such as drawings, charts, and maps.

Name length

Names for ranges and sheets can be up to 15 characters long. Names for graphic objects can be up to 64 characters long.

Case-sensitivity in names

1-2-3 is not case-sensitive for names. For example, if you enter "myrange" as a range name, 1-2-3 displays the name as MYRANGE and considers myrange and MYRANGE as the same name.

Character restrictions

Names for all objects, including sheets and ranges, can contain spaces. However, do not start a name with a space or an ! (exclamation point). Also, do not include any of the following:

, (comma)	+ (plus sign)	< (less than)
; (semicolon)	- (minus sign)	> (greater than)
. (period)	* (asterisk)	@ (at sign)
? (question mark)	/ (slash)	# (pound sign)
& (ampersand)	{ (left curly brace)	

Naming restrictions

- Do not create names that look like cell addresses, such as Q2 or FY98, or names that begin with numbers, such as 20DEC.
- Do not use any of the following as range names: @function names; keyboard key names, such as HOME; macro command keywords, such as BEEP; LotusScript commands or keywords.

{button ,AL('H_NAMING_A_RANGE_STEPS;H_NAMING_A_SHEET_STEPS;H_NAMING_A_RANGE_USING_ADJ
ACENT_LABELS_STEPS;H_NAMING_A_RANGE_USING_THE_INFOBOX_STEPS';,0)} [See related topics](#)

Name dialog box

Use this dialog box to create and delete range names.

Choose a task

[Naming a range](#)

[Naming a range using adjacent labels](#)










[Deleting range names](#)

[Selecting a range from a dialog box](#)

New features in 1-2-3

Lotus® 1-2-3® Release 9 gives you new ways to simplify your work and collaborate with colleagues across workgroups, applications, and the Internet.

For more information, click any topic below:

-  [Productivity and ease of use](#)
-  [1-2-3 and the year 2000](#)
-  [New @functions](#)
-  [Internet features](#)
-  [Team computing](#)
-  [Sharing data using DDE and OLE](#)
-  [1-2-3 as an Active Document server](#)
-  [Programmability](#)
-  [Compatibility](#)

Compatibility

Upgraders from previous releases of 1-2-3 can use familiar menu commands and macros to perform tasks while learning to use new features in 1-2-3. 1-2-3 also provides enhanced compatibility with a range of file types.

1-2-3 Classic

1-2-3 Classic lets you use the 1-2-3 for DOS Release 3.1 menu to perform tasks so you can remain productive while you learn to use 1-2-3 in the Windows environment. To use 1-2-3 Classic, just press / (slash) from the current sheet. If you don't want to use 1-2-3 for DOS menu commands, you can turn off 1-2-3 Classic.

1-2-3 macros

While LotusScript offers a newer way to automate tasks and develop custom applications, you can continue to use existing 1-2-3 macros and macro applications from previous releases of 1-2-3 for DOS and 1-2-3 for Windows.

For information on macro commands and their LotusScript equivalents, see [Overview: Release 5 macro command equivalents](#) and [Overview: Release 5 info component equivalents](#).

File formats

1-2-3 saves new files as .123 files, a file type that contains both data and formatting. The file format for [SmartMaster](#) files is .12M.

You can now open these file types in 1-2-3:

- dBASE (.DBF)
- HTML File (.HTM*)
- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Microsoft Excel (.XLS, .XLT, .XLW)
- Paradox (.DB)
- Quattro Pro (.WQ1, .WB1, .WB2)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)

You can also combine graphics from these file types with the current workbook:

- ANSI Metafile (.CGM)
- Bitmap (.BMP)
- GIF Image (.GIF)
- JPEG Image (.JPG, .JPEG)
- Lotus 1-2-3 PIC (.PIC)
- Windows Metafile (.WMF)

When you save a new file, 1-2-3 automatically uses Lotus 1-2-3 9 Workbook (.123) as the default format. To change the default to a different 1-2-3 file type, use File - User Setup - 1-2-3 Preferences (New Workbook Defaults tab).

You can save 1-2-3 files in these file formats:

- dBASE (.DBF)
- Lotus 1-2-3 9 Workbook (.123)
- Lotus 1-2-3 97 Workbook (.123)
- Lotus 1-2-3 OS/2 Warp 4 Workbook (.123)
- Lotus 1-2-3 (.WK4, .WK3, .WK1)
- Lotus 1-2-3 9 SmartMaster (.12M)
- Microsoft Excel 97 Workbook (.XLS)
- Microsoft Excel 5/95 Workbook (.XLS)
- Microsoft Excel 4 Worksheet (.XLS)
- Paradox (.DB)
- Text (.TXT)

Excel compatibility

1-2-3 provides improved support for opening and saving files in different Excel formats, including the ability to open and save Excel 97 files containing 65,536 rows. In addition, 1-2-3 has over 50 new @function equivalents for Excel functions that make it easier to share files between 1-2-3 and Excel.

The new Microsoft Excel Menu Finder helps Excel users quickly identify 1-2-3 command equivalents for Excel commands.

Solver

Solver is available as a 1-2-3 add-in. This add-in, which replaces previous versions of Lotus Solver, is a "what if" analysis tool that finds the best possible allocation of resources to minimize costs or maximize profits. Solver finds answers to problems you define, using either constraint formulas or a formula cell to be minimized or maximized.

Solver handles problems with up to 200 decision variables. You can use Solver to:

- Schedule employees to better meet customer demands
- Manage cash flow to earn more interest
- Make capital budgeting decisions for different projects within your organization
- Develop an inventory ordering policy

You can still use the following 1-2-3 Solver macro commands:

- {SOLVER-ANSWER}
- {SOLVER-DEFINE}
- {SOLVER-REPORT}

You can install a trial version of Solver, available from both the 1-2-3 Customer Support Web site and the Frontline Systems Web site. For more information about Solver, contact:

Frontline Systems, Inc.
PO Box 4288
Incline Village, NV 89450
Tel: (702) 831-0300
Fax: (702) 831-0314
Web: <http://www.frontsys.com>
E-mail: info@frontsys.com

```
{button ,AL('H_123_CLASSIC_OVER;H_MACRO_COMPATIBILITY_OVER;H_WORKING_WITH_123_FILES_OVER  
;H_WORKING_WITH_DBASE_FILES_OVER;H_WORKING_WITH_DBASE_AND_PARADOX_FILES_OVER;H_  
WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_QUATTRO_PRO_FILES_OVER;H_123_WORKI  
NG_WITH_DOS_FILES_OVER;H_123_WORKING_WITH_OS2_FILES_OVER;H_123_USING_THE_EXCEL_ME  
NU_FINDER_STEPS;H_123_NEW_FUNCTIONS_OVER',0)}
```

[See related topics](#)

Internet features

New features let you open and save HTML files, publish your data on the Web, bring data from a Web site into 1-2-3, and create hyperlinks.

Some of the features described below are new in 1-2-3 Release 9. Other features were available in 1-2-3 97 but will be new to you if you're upgrading from an earlier version of 1-2-3.

Opening and saving HTML files

Now you can open Lotus eSuite™ spreadsheet files and other HTML files, and combine JPEG and GIF image files into a sheet.

You can also publish 1-2-3 ranges, sheets, and workbooks to the World Wide Web in two formats -- either as HTML tables that can be reopened in 1-2-3 or opened in eSuite spreadsheet, or as high fidelity Web pages that look just like printed output.



[See related topics](#)

Getting data from the Web

You can also bring data from a Web page on either the Internet or an intranet into a Web table on the sheet. Once you create a Web table, 1-2-3 maintains the connection to the source URL. You can change the table's name, Web address, display settings, and size, and tell 1-2-3 when and how often to refresh the data from the Web.



[See related topics](#)

Hyperlinks

Hyperlinks let you jump to a location on the Internet, to other files, and to ranges and objects in the current workbook. You can attach a hyperlink to a cell, button, or picture in 1-2-3.



[See related topics](#)

Easy access to Web sites

When you use the 1-2-3 set of Internet SmartIcons, you can access the Lotus home page, Lotus customer support page, Lotus FTP server, and the Yahoo search engine with one click.

You can open files from the Web and FTP servers, and save workbook files to FTP servers. To simplify access, 1-2-3 maintains a list of the most recently used FTP and HTTP server addresses.

1-2-3 supports popular Web browsers, including Netscape, Microsoft Internet Explorer, and the Personal Web Navigator.



[See related topics](#)

{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_STEPS;H_123_CONVERTING_A_RANGE_SHEET_OR_WORKBOOK_TO_A_WEB_GRAPHIC_STEPS',0)} [See related topics](#)

New @functions

1-2-3 includes over 50 new engineering, financial, statistical, and other @functions. Click the @function selector to see a list of all the 1-2-3 and custom @functions available.



You can also create your own @functions using LotusScript.



[See related topics](#)

The following @functions are new in 1-2-3 Release 9.

Calendar

[@YEARFRAC](#)

Database

[@COUNTIF](#)

[@SUMIF](#)

Engineering

[@BIN2DEC](#)

[@BIN2HEX](#)

[@BIN2OCT](#)

[@CONVERT](#)

[@DEC2BIN](#)

[@DEC2HEX](#)

[@DEC2OCT](#)

[@HEX2BIN](#)

[@HEX2DEC](#)

[@HEX2OCT](#)

[@OCT2BIN](#)

[@OCT2DEC](#)

[@OCT2HEX](#)

[@RADIX](#)

Financial

[@COUPDAYBS](#)

[@COUPDAYS](#)

[@COUPDAYSNC](#)

[@COUPNCD](#)

[@COUPNUM](#)

[@COUPPCD](#)

[@DEC2FRAC](#)

[@DISC](#)

[@FRAC2DEC](#)

[@INTRATE](#)

[@PRICEDISC](#)

[@PRICEMAT](#)

[@RECEIVED](#)

[@TBILLEQ](#)

[@TBILLPRICE](#)

[@TBILLYIELD](#)

[@YIELDDISC](#)

[@YIELDMAT](#)

Information

[@COLUMN](#)

[@ROW](#)

[@SHEET](#)

Mathematical

[@RANDBETWEEN](#)

Statistical

[@CONFIDENCE](#)

[@COUNTBLANK](#)

[@EXPONDIST](#)

[@FISHER](#)

[@FISHERINV](#)

[@HYPGEOMDIST](#)

[@LOGINV](#)

[@LOGNORMDIST](#)

[@MODE](#)

[@NEGBINOMDIST](#)

[@NORMSINV](#)

[@PROB](#)

[@RSQ](#)

[@STANDARDIZE](#)

[@STEYX](#)

[@SUMX2MY2](#)

[@SUMX2PY2](#)

[@TRIMMEAN](#)

[@WEIBULL](#)

{button ,AL('H_PROGRAMMABILITY_OVER;H_FUNC_BASICS',0)} [See related topics](#)

Overview: Installing additional language versions of 1-2-3

You can access 1-2-3 in multiple languages.

The first language you install becomes your default language. To add a second or third language version of 1-2-3, you must run the Install program again. Install informs you that you already have an existing copy of the product in a different language and preserves the directory structure of the default language.

Install adds icons for the additional languages to the Start menu. These icons are identified by the two-character ISO language tag. For example, the icon for the French version of 1-2-3 is labeled Lotus 1-2-3 - FR.

Productivity and ease of use

New or improved features make 1-2-3 more intuitive and easy to use and let you focus on working more effectively. Some of the features described below are new in 1-2-3 Release 9. Other features were available in 1-2-3 97 but will be new to you if you're upgrading from an earlier version of 1-2-3.

Shared Lotus user interface

1-2-3 has the same menu structure as other Lotus applications such as Word Pro, Approach, and Freelance Graphics. Other shared features include SmartIcons®, the status bar, and the InfoBox. The consistent user interface lets you transfer your knowledge from one Lotus product to another and reduce the time needed to get up and running.

Context-sensitive menus

Context-sensitive menus are new to you if you're upgrading from an earlier version of 1-2-3 than 1-2-3 97. The 1-2-3 main menu changes depending on the type of object you're working with, so the commands you need are always at hand.



[See related topics](#)

InfoBox

The InfoBox is also new in 1-2-3 97. Use the InfoBox to view and change properties for any object in 1-2-3 without interrupting your work to open or close a dialog box. You see all changes that you make in the InfoBox as you make them. You can leave the InfoBox open while you work, or collapse it to view more of your workspace.



[See related topics](#)

Entering data

Each sheet now contains 65,536 rows.

When you enter a 2-digit year, 1-2-3 uses a sliding window to determine whether the year falls in the 20th or 21st century. If you turn off the sliding window, 1-2-3 assumes any 2-digit years that you enter are in the 20th century.

New in 1-2-3 97, cell comments let you annotate data in the sheet. When you add cell comments, 1-2-3 automatically adds a date/time stamp so you can track the comments of multiple contributors.



[See related topics](#)

SmartLabels

Use handy new [SmartLabels](#) to perform calculations quickly without entering a formula or @function. For example, you can type SUBTOTAL or AVERAGE and let 1-2-3 calculate the result for you. You can also assign different number formats to SmartLabels and create your own custom SmartLabels.



[See related topics](#)

SmartFill and smarter formatting

Filling a range with a sequence of text, dates, or times is quicker and easier with SmartFill. Now when you fill a range by example, 1-2-3 anticipates what you want and enters suggested text for you. For example, if you enter 'February' in a cell and then type 'M' in the next cell, 1-2-3 automatically adds 'arch' and waits for you to accept the entry or type different text.

1-2-3 also formats formula results based on the data used in the formula. For example, if you sum a range of data that has a particular number format, 1-2-3 applies the same number format to the result. 1-2-3 also formats the results of most financial @functions using your local currency setting.



[See related topics](#)

Copying and moving

Use the mouse to copy and move sheets by dragging the [sheet tab](#). Or choose Move or Copy Sheet from the Sheet menu.

You can also copy column widths and row heights, with or without the data in the selected cells.



[See related topics](#)

Outlining

New in 1-2-3 97, outlining lets you control how you view summary and detail data in the sheet. You can collapse or expand groups of rows and columns to view or print just the data you want.



[See related topics](#)

Print preview

Dynamic print preview, introduced in 1-2-3 97, lets you check your work before you print it, make whatever adjustments are necessary, and see the effects of those changes immediately.

New enhancements let you create multi-line headers and footers, set header and footer height, and print multiple sheets or ranges on one page or separate pages. You can also adjust margins directly by dragging them with the mouse, and choose whether to display or hide them. To add or remove page breaks, use the new Page Break command on the Edit menu.



[See related topics](#)

Working with databases

The current release of 1-2-3 gives you two different ways to work with databases.

1-2-3 and Approach® are installed together so you can tap into Approach's powerful database features from within 1-2-3. Use 1-2-3 with Approach to create and work with data query tables, dynamic crosstabs, data entry forms, mailing labels, and reports. You can use query tables to find or sort records extracted from a larger database, and dynamically rearrange data in a 1-2-3 range by dragging and dropping field names from one location to another.

The Data Query Add-In (DQA) provides functionality very similar to that of 1-2-3 for Windows Release 5. Once you load the add-in, you can work with query tables created in either 1-2-3 for Windows Release 5 or the 1-2-3 97 Query Table Add-In.



[See related topics](#)

Aligning drawn objects

You can align charts, maps, and other graphic objects by making their edges snap to the grid lines in the sheet.



[See related topics](#)

Help

New Help features include the Expert and the Microsoft Excel Menu Finder.

The Expert helps you find out how to perform different tasks in 1-2-3. Just tell the Expert what you want to do, and then select the Help topic you want from a list of possible answers.

The Microsoft Excel Menu Finder makes it easy for Excel users to work in 1-2-3. Simply choose an Excel command to display the name of the equivalent 1-2-3 command.

Several additional Help features are new to you if you're upgrading from an earlier version of 1-2-3 than 1-2-3 97. These include a book-like table of contents and index, full-text search, and animated QuickDemos that show you how to perform various tasks in 1-2-3.

Try using bubble help as a handy way to explore the 1-2-3 workspace. Just rest the pointer over different SmartIcons to see a pop-up description. Or rest the pointer over the various tabs in the InfoBox to find out what types of tasks you can perform.



[See related topics](#)

Lotus Assistants

Lotus Assistants, also available in 1-2-3 97, give you step-by-step instructions for performing complex tasks such as creating charts, maps, and query tables, for working with 1-2-3 data in Lotus Approach, and for managing multiple versions of data.

ViaVoice in 1-2-3

This release of Lotus 1-2-3 includes a seamlessly integrated, custom version of IBM ViaVoice™ software. With voice-activated 1-2-3 SmartMasters and ViaVoice, you can enter data into 1-2-3 spreadsheets by dictation. You can obtain these voice-activated SmartMasters on the Web at www.lotus.com/smartsuiteupdates or by contacting Lotus Support.

Programmability

1-2-3 offers new ways to automate your work, streamline tasks, and develop custom applications.

Some of the features described below are new in 1-2-3 Release 9. Other features were available in 1-2-3 97 but will be new to you if you're upgrading from an earlier version of 1-2-3.

LotusScript

If you're upgrading from a 1-2-3 release prior to 1-2-3 97, LotusScript® is new to you. This object-oriented programming language lets you automate your work in 1-2-3 and other Lotus products, create custom applications, and integrate data from other Windows applications. You can use LotusScript for a wide variety of tasks, from performing simple commands to developing complex cross-product applications.

Because 1-2-3 provides the same development environment as other Lotus applications, it's easier to create, debug, and run programming applications. LotusScript is compatible with Visual Basic.

This release of 1-2-3 includes additional LotusScript support for new features. Also, you can now attach Click events to pictures and ranges.



[See related topics](#)

ActiveX and JavaBean controls

Application developers can embed ActiveX and JavaBean controls in a 1-2-3 workbook and attach scripts to them to create custom spreadsheet applications. ActiveX controls include user interface elements such as buttons, check boxes, and text boxes. JavaBeans are self-contained objects that are similar to controls.

A special command on the View menu lets you switch between Design and Run modes when you create and test the controls.



[See related topics](#)

Macros

If you're upgrading from a previous release of 1-2-3, you can continue to use familiar 1-2-3 macro commands to perform tasks and automate procedures.



[See related topics](#)

Actions menu

New in 1-2-3 97, the 1-2-3 Actions menu lets you quickly add custom menu commands to the 1-2-3 menu. This menu appears in a 1-2-3 embedded object when you publish a Notes action. Commands in this menu can include NotesFlow commands and prompted Script commands.



[See related topics](#)

Sharing data using DDE and OLE

1-2-3 Release 9 supports Dynamic Data Exchange (DDE) and can be used as an Active Document server.

Object Linking and Embedding (OLE) was available in 1-2-3 97 but may be new to you if you're upgrading from an earlier version of 1-2-3. 1-2-3 Release 9 lets you create a new type of OLE link called a datalink table which stores the linked data directly in the sheet.

DDE

1-2-3 lets you create and use DDE links to data in other Windows applications that are DDE servers. In addition, you can use DDE macros and LotusScript commands. You can also open files containing DDE links that were created in previous versions of 1-2-3.

1-2-3 as an Active Document server

You can open and work with 1-2-3 files directly from inside Active Document containers such as Microsoft Internet Explorer. For example, when you choose Open from the Internet Explorer File menu and select a .123 file, 1-2-3 opens in the Explorer window and displays the specified file. You can use the 1-2-3 menu, SmartIcons, and status bar to work with the file and save your changes as you normally do in 1-2-3.

Full OLE support

Full OLE support makes it easier to edit embedded objects from other applications because the 1-2-3 main menu switches to reflect the commands you need. For example, when you edit an embedded Freelance Graphics® object in 1-2-3, the 1-2-3 main menu integrates the Freelance® menus so you can continue to work in 1-2-3. In addition, embedded objects reflect your changes immediately, so you don't need to explicitly update them.

Similarly, when you edit an embedded 1-2-3 object in another application that supports OLE, that application's menu changes to display 1-2-3 commands. For example, if you edit an embedded 1-2-3 object in Word Pro, you can choose 1-2-3 commands directly in Word Pro.

Datalink tables

When you create an OLE link using Clipboard data in Text, .WK1, or .WK3 format, 1-2-3 creates a datalink table and enters the linked data directly in the sheet. Datalink tables can include text and numbers.

You can copy and move the datalink table, format the linked data, use it to perform calculations, and choose when to update the link.

OLE automation

OLE automation capabilities let you develop cross-product scripts that can interact with and control products and their objects from outside. In other words, you can program other products to automate repetitive tasks.

You can use other products that support OLE automation to externally access and manipulate 1-2-3 and objects in it. For example, you can create a script in a Notes document that uses OLE automation to perform calculations in 1-2-3 and then bring the data back into Notes.

It's just as easy to use 1-2-3 to control other products using OLE automation. For example, you can use 1-2-3 to access Word Pro and Freelance Graphics, and then bring the text and graphics back into 1-2-3 where you can consolidate them with your data for a monthly report.

{button ,AL('H_SHARING_DATA_USING_OLE2_OVER;H_123_DDE_OVER;H_123_AS_ACTIVE_DOC_SERVER_OVER;H_123_WORKING_WITH_DATALINK_TABLES_OVER',0)} [See related topics](#)

Team computing

Team computing features help you communicate, collaborate, and coordinate with others in your organization to work together more effectively.

If you're upgrading from a 1-2-3 release earlier than 1-2-3 97, the team computing features described below will be new to you.

TeamMail

TeamMail™ provides enhanced electronic mail support that lets you distribute data to co-workers -- from a message to an entire 1-2-3 workbook. You can send data to a group of people simultaneously, or route the data sequentially from one individual to the next in a mailing list. After reviewing the data, individuals can incorporate their updates and comments before routing the data to the next recipient. You can also save and reuse mailing lists for subsequent routing.

TeamReview

Like TeamMail, TeamReview™ lets you distribute a range of data to your co-workers simultaneously or individually. When you have received changes and comments from the recipients, you can replace the original data with the new, or merge the changes into the source as range versions.

TeamConsolidate

TeamConsolidate™ facilitates group collaboration by tapping into the power of Lotus Notes®. You can split a 1-2-3 workbook into individual sheets, and then save the sheets as separate documents in a Notes™ database. After team members view and update the information, you can consolidate their changes by recombining the separate documents into a single workbook.

TeamConsolidate also lets you merge separate versions of data when you share 1-2-3 workbooks. You can create a master copy of the workbook, and then distribute copies to your co-workers. After they enter versions in their copies of the original workbook, you can use TeamConsolidate to merge their updates back into the original file.

NotesFlow

NotesFlow™ lets you develop custom workflow applications using Notes Release 4.1 or higher and Object Linking and Embedding (OLE).

You create a NotesFlow form in Notes and associate menu commands with the form. Each command runs a particular script that you specify. When you use the form to work with an embedded 1-2-3 object, the NotesFlow commands appear on the Actions menu in both Notes and 1-2-3. When you choose a NotesFlow command in 1-2-3, the command runs the appropriate script.

Version Manager

1-2-3 comes with Version Manager™ enhancements that simplify creating, updating, and viewing multiple sets of data in the same range. It's also easier to work with groups of selected versions to analyze the effects of various scenarios.

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_TEAMMAIL_OVER;H_TEAMREVIEW_OVER;H_SHARE_SHEETS_USING_NOTES_OVER;H_SHARING_VERSIONS_WITH_A_TEAM_OVER',0)} [See related topics](#)

1-2-3 @Function Help is not available

Help on @functions is not currently installed. For information, see [Installing Help on individual @functions.](#)

1-2-3 Macro Help is not available

Help on macros is not currently installed. For information, see [Installing Help on macro commands.](#)

1-2-3 LotusScript Help is not available

Help on LotusScript is not currently installed. For information, see [Installing Help on LotusScript](#).

Help is not available

The Help topic you selected is not available. Click [Go Back](#) to see the previously displayed Help topic, or click [Help Topics](#) and then select a different Help topic.

Help is not available

The topic you selected is in a Help file that is not available.

To install additional Help files, run the Install program, select the Customize features - Manual install option, and specify the Help file(s) you want to install.

Macro Help is not available

The topic you selected is in a Help file that is not installed by the Install program.

If you have the 1-2-3 Release 9 or SmartSuite CD-ROM, you can install macro Help from there. If not, you can download macro Help from the World Wide Web or order a copy from Lotus Customer Support. For more information, see [Installing Help on macro commands](#).

Overview: Selecting graphic objects

To work with a graphic object, you must first select it. After you select the object, you can move it, copy it, delete it, or change its properties.

When you select an object, its menu appears in the main menu. For example, if you select a chart, the Chart menu appears.

Graphic objects you can select

You can select any of the following objects:

- Buttons (attached to macros or scripts)
- Charts and chart parts
- Embedded objects
- Lines, arrows, and shapes (such as rectangles, ellipses, and polygons)
- Maps and map parts
- Text blocks
- Pictures

The appearance of a selected object

When you select an object, handles appear around it. The name of the object appears in the selection indicator.



Selecting more than one object

You can select more than one object to move or style them together. Hold down SHIFT as you select each object.

Selecting an object by its name

You can use Edit - Go To to find and select a graphic object in any active file.

{button ,AL('H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_SELECTING_WORKSHEET_AREAS_OVER;',0)} [See related topics](#)

Selecting graphic objects

To work with a graphic object, you must first select it. The table below describes how to select various objects.

To select	Do this
Button	SHIFT+click the button.
Chart	Click the border of the chart.
Chart part	Click the part of the chart you want.
Embedded object	Click the embedded object.
Collection of objects	Click the first object, then SHIFT+click the others.
Line or arrow	Click the line or arrow.
Map	Click the border of the map.
Map part	Click the part of the map you want.
Picture	Click the picture.
Shape	Click the border of the shape or a line in the shape.
Text block	Click the text block.

To remove an object from a selection, SHIFT+click the object.

Selecting objects that are not visible at the same time

Objects do not all have to be visible simultaneously to select them. You can select objects in different parts of the same sheet by selecting the first object, then holding down SHIFT while you use the mouse to navigate to and select the next one(s).

Related SmartIcons



Selects several objects



Groups selected objects



Ungroups selected objects



Brings selected objects to the front



Sends selected objects to the back

{button ,AL('H_SELECTING_OBJECTS_OVER;',0)} [See related topics](#)

1-2-3 and FastSite

Once you add a 1-2-3® file to a FastSite site, you still can make changes to the Web conversion format and to a subset of the Web conversion options you've already selected for the file in 1-2-3.

You can publish 1-2-3 files as HTML pages or as jDoc documents. If you publish a file as an HTML page, FastSite retains the formulas in the file, and the file can be read back into 1-2-3. If you publish a file as a jDoc document, FastSite uses the jDoc technology to create a compact, cross-platform, high-fidelity replica of a file that retains its original formatting.

Changing the conversion format

1. In the site hierarchy, which is the left pane of the FastSite desktop, right-click the 1-2-3 file.
2. Select Properties.
3. Under Conversion format, select "HTML pages," "jDoc document," or "File Defaults."

Note For more information on 1-2-3 file defaults, see the 1-2-3 Help.

Changing Web publishing options

1. In the site hierarchy, which is the left pane of the FastSite desktop, right-click the 1-2-3 file.
2. Select Properties.
3. Click 1-2-3 Publishing Options.
4. Under Conversion format, select one of the following options:
 - "HTML pages" if you want to publish a selected range
 - "jDoc" if you want to publish the whole workbook, a selected sheet, or a selected range
 - "File defaults" if you want to keep the publishing options you set in 1-2-3

Tip If you want to publish an unnamed range, publish the range first in 1-2-3 and save the file. When you change Web publishing options in FastSite, choose "File defaults."

5. Click OK.

Supported file types

You can include the following types of 1-2-3 files in a FastSite site:

<u>File type</u>	<u>File extension</u>
1-2-3 97 and later	.123
1-2-3 Release 4	.WK4
1-2-3 Release 3	.WK3
1-2-3 Release 1	.WK1

{button ,AL('H_123_WHAT_IS_ODYSSEY_OVER',0)} [See related topics](#)

FastSite and the other SmartSuite applications

FastSite, the newest member of Lotus SmartSuite®, is designed for users who want to contribute information to a Web site. You can use FastSite even if you're not a Webmaster and you don't need to know HTML.

FastSite lets you do the following:

- Create and manage Web sites.
- Post existing SmartSuite® documents to the Web without having to copy and reformat them.
- Use ready-made Web SmartMaster looks to give your site a cohesive and professional look.
- Seamlessly update your information once it's on the Web.

Once you create a Web site, you can post it to any Web server. For example, you can post the Web site to a Domino™ server where FastSite takes advantage of the Domino search technology.

Using FastSite

To use FastSite, from the Start menu, choose Programs - Lotus SmartSuite - FastSite. Then on the Choose Task tab, click "Create a new site." FastSite guides you through the steps for creating a site.

FastSite and SmartSuite files

When you include SmartSuite files in a FastSite site, FastSite provides Web publishing information about each file -- or a subset of it, depending on the application -- that you can change without leaving FastSite. For more information, see [1-2-3 and FastSite](#).

Overview: Creating an outline

Outlining lets you expand and collapse areas of a sheet to see and print different levels of detail. You can create an outline with up to eight levels of rows and columns.

Benefits of outlining

Outlining is useful for viewing and printing summary reports. Often, spreadsheet summary data -- such as a total for the 12 months of a year -- is hard to find, and requires a lot of scrolling. Outlining makes it easy to hide rows and columns of details so that you can see summary data. When you need to see the details, you can expand the outline.



[Show me a QuickDemo](#)

Creating an outline

Creating an outline requires three general steps.

1. Before outlining a range of data, plan the outline by analyzing the levels and layout of the data in the range. Identify the hierarchy of summary and detail data. Determine which rows and columns contain the highest level of summary data, which contain the next highest level of summary data, and so on, down to the detail data.

The example below shows an outline of a range containing sales data by quarter. The highest level columns are A (Regions) and F (1998 Totals). In the outline, 1998 Total is the summary column. Columns B through E, showing quarterly data, are detail columns. Row 8 is the summary row, and rows 4 through 7, containing regional data, are detail rows.

2. Next, determine where summary data is in relation to its detail data. Are summary rows above or below related detail rows? Are summary columns to the right or left of detail columns? The answer to these questions will determine how you set properties to expand and collapse your outline.

In the example, the summary column (F), is to the right of the detail columns, and the detail rows are above the summary row (8). Use Sheet - Sheet Properties (Outline tab) to reflect this orientation. See [Specifying how summary data relates to detail data](#).

Summary row		Detail columns				Summary column	
A \							
	A	A	B	C	D	E	F
1							
2							
3		Regions	Q1	Q2	Q3	Q4	1998 Total
4		North	25	22	27	35	109
5		South	27	31	30	37	125
6		East	28	35	32	41	136
7		West	31	39	35	42	147
8		Total	111	127	124	155	517

3. Finally, you are ready to demote the lower level rows or columns to create the levels of your outline. See [Demoting rows and columns to create an outline](#).

With the rows and columns demoted, you can collapse the outline to hide the detail rows and columns, and show only the summary data.

Summary row

A \							
	A	A	B	C	D	E	F
1							
2							
3		Regions	Q1	Q2	Q3	Q4	1998 Total
8		Total	111	127	124	155	517

Summary column

A			
	A	A	F
1			
2			
3	Regions	1998 Total	
4	North	109	
5	South	125	
6	East	136	
7	West	147	
8	Total	517	

{button ,AL('H_CREATING_AN_OUTLINE_EX',1)} [See example](#)

{button ,AL('H_WORKING_WITH_OUTLINES_OVER;H_DEMOTING_ROWS_AND_COLUMNS_STEPS;H_PROMOTING_ROWS_AND_COLUMNS_STEPS;H_SETTING_OUTLINE_PROPERTIES_STEPS;H_HIDING_AND_SHOWING_THE_OUTLINE_FRAME_STEPS;H_COLLAPSING_OUTLINES_STEPS;H_EXPANDING_OUTLINES_STEPS;H_CLEARING_OUTLINES_STEPS;';0)} [See related topics](#)

Example: Creating an outline

This example shows an outline of a range containing sales data by quarter. The highest level columns are A (Regions) and F (1997 Totals). In the outline, 1997 Totals is the summary column. Columns B through E, showing quarterly data, are detail columns. Row 8 is the summary row, and rows 4 through 7, containing data by quarter, are detail rows.

The summary column (F) is to the right of the detail columns, and the detail rows are above the summary row (8).

Summary row						
Detail columns						
Summary column						
A						
	A	B	C	D	E	F
1						
2						
3	Regions	Q1	Q2	Q3	Q4	1998 Total
4	North	25	22	27	35	109
5	South	27	31	30	37	125
6	East	28	35	32	41	136
7	West	31	39	35	42	147
8	Total	111	127	124	155	517

With rows 4 through 7 demoted and collapsed, the outline looks like this:

Summary row						
A						
	A	B	C	D	E	F
1						
2						
3	Regions	Q1	Q2	Q3	Q4	1998 Total
8	Total	111	127	124	155	517

With columns B through E demoted and collapsed, the outline looks like this:

Summary column		
A		
	A	F
1		
2		
3	Regions	1998 Total
4	North	109
5	South	125
6	East	136
7	West	147
8	Total	517

Overview: Working with rows and columns in outlines

In general, you can size, insert, delete, move, and copy rows and columns when the outline frame is displayed as you would any rows and columns in a sheet.

Inserting rows and columns

You can insert rows or columns from within an outline by choosing Range - Insert.

- When you insert rows from within an outline, the inserted rows are placed at the same level as the row above the insertion point.
- When you insert columns from within an outline, the inserted columns are placed at the same level as the column to the left of the insertion point.

Deleting rows and columns

When you delete a summary row or column, the associated detail rows or columns are promoted to the same outline level as the summary row or column you deleted.

Moving rows or columns

When you move a summary row or column from within an outline, 1-2-3 moves the data and styles, but not the outline structure.

Copying rows or columns

When you copy and paste a row or column of data from within an outline, 1-2-3 copies the data and styles, but not the outline structure.

{button ,AL('H_OUTLINING_SHEET_DATA_OVER;H_INSERTING_COLUMNS_OR_ROWS_STEPS;H_DELETING_COLUMNS_OR_ROWS_STEPS;H_COPYING_AND_MOVING_IN_A_SHEET_STEPS','0')} [See related topics](#)

Demoting rows and columns to create an outline

Demote groups of rows, and then columns, to create an outline or change the structure of an existing outline.



[Show me a QuickDemo](#)

1. Make sure you have [specified how summary data relates to detail data](#).
2. Select the row numbers or column letters for the rows or columns you want to demote.
Don't include [summary rows](#) or summary columns in your selection.
3. Choose Sheet - Outline - Demote Rows, or Sheet - Outline - Demote Columns.



1-2-3 inserts an outline frame along the left (for demoted rows) or top (for demoted columns) of your sheet.



{button ,AL('H_DEMOTING_ROWS_AND_COLUMNS_DETAILS',1)} [See details](#)

{button ,AL('H_PROMOTING_ROWS_AND_COLUMNS_STEPS;H_OUTLINING_SHEET_DATA_OVER;H_EXPANDING_OUTLINES_STEPS;H_COLLAPSING_OUTLINES_STEPS;',0)} [See related topics](#)

Details: Demoting rows and columns to create an outline

Selecting rows and columns to demote

You can select the entire row or column, or just a cell in the row or column. To select more than one row or column, you can select cells to indicate the range of columns or rows you want to demote. If you select a range of cells or a collection of ranges, and then choose Sheet - Outline - Demote, 1-2-3 displays a dialog to allow you to specify whether you want to demote rows or columns.

Number of outline levels

You can create up to eight outline levels.

Related SmartIcons



Demotes the selected rows or columns down one outline level



Promotes the selected rows or columns up one outline level

{button ,AL('H_DEMOTING_ROWS_AND_COLUMNS_STEPS',1)} [Go to procedure](#)

Promoting rows and columns

Promote groups of rows and columns to move them up one level in an outline.

1. Select the demoted row(s) or columns(s) you want to promote.
Don't include summary rows or columns in your selection.
2. Choose Sheet - Outline - Promote Rows, or Sheet - Outline - Promote Columns.



{button ,AL('H_PROMOTING_ROWS_AND_COLUMNS_DETAILS',1)} See details

{button ,AL('H_OUTLINING_SHEET_DATA_OVER;H_DEMOTING_ROWS_AND_COLUMNS_STEPS;H_EXPANDING_OUTLINES_STEPS;H_COLLAPSING_OUTLINES_STEPS;',0)} See related topics

Details: Promoting rows and columns

Selecting rows and columns to promote

You can select the entire row or column, or just a cell in the row or column. To select more than one row or column, you can select cells to indicate the range of columns or rows you want to promote. If you select a range of cells or a collection of ranges, and then choose Sheet - Outline - Promote, 1-2-3 displays a dialog to allow you to specify whether you want to promote rows or columns.

Related SmartIcons



Demotes the selected rows or columns down one outline level



Promotes the selected rows or columns up one outline level

{button ,AL('H_PROMOTING_ROWS_AND_COLUMNS_STEPS',1)} [Go to procedure](#)

Collapsing an outline to show less detail

You can collapse rows or columns to show less detail and to emphasize summary data.



[Show me a QuickDemo](#)

1. To collapse a single outlined section of the sheet to a particular level, click the minus sign for the level you want to collapse.
2. To collapse all outlined sections of the sheet to a particular level, click the outline-level button corresponding to that level.

Outline-level button to collapse columns

Outline-level button to collapse rows

Minus sign

A			
	A	A	B
1			
2			
3		Regions	Q1
4		North	25
5		South	27
6		East	28
7		West	31
8		Total	111

{button ,AL('H_COLLAPSING_OUTLINES_DETAILS',1)} [See details](#)

{button ,AL('H_EXPANDING_OUTLINES_STEPS;H_OUTLINING_SHEET_DATA_OVER;H_DEMOTING_ROWS_AND_COLUMNS_STEPS;H_PROMOTING_ROWS_AND_COLUMNS_STEPS';,0)} [See related topics](#)

Details: Collapsing an outline to show less detail

Using menu commands to collapse an outline

You must use menu commands to collapse an outline if the outline frame is hidden.

Select a range of entire rows or columns to collapse, and then choose Sheet - Outline - Collapse. Or, select a range including at least one cell in each row or column you want to collapse, and then choose Sheet - Outline - Collapse, select Rows or Columns, and click OK.

Using outline-level buttons to collapse and expand an outline

1-2-3 displays outline-level buttons for each level in the outline. The outer buttons collapse the outline and the inner buttons expand the outline. For example:

- Clicking the far left outline-level button for rows collapses the entire outline.
- Clicking the far right outline-level button for rows expands the entire outline.
- If the outline contains more than two levels, you can click a middle outline-level button to collapse or expand the outline to the level of detail you want to show. For example, if your outline has four row levels, clicking the third outline-level button from the left collapses or expands the outline to the third level.

Effects of collapsing rows and columns

The following conditions are in effect when rows or columns are collapsed.

- You cannot use Edit - Go To to jump to a collapsed range.
- Collapsed rows and columns do not print.
- You can still perform 1-2-3 operations--such as summing a range of cells--on ranges in collapsed rows or columns. To perform a command on a range in a collapsed row or column, enter the address or range name in a dialog box or select the surrounding rows or columns.
- Formulas containing references to ranges in collapsed rows or columns still work correctly. When creating a formula that refers to data in a collapsed row or column, enter the range name or address in the formula instead of selecting it.
- You can prevent changes to data in collapsed rows or columns only by protecting the data and locking the sheet or workbook.

Related SmartIcons



Expands columns or rows in the selected range



Collapses columns or rows in the selected range

{button ,AL('H_COLLAPSING_OUTLINES_STEPS',1)} [Go to procedure](#)

{button ,AL('H_HIDING_AND_SHOWING_THE_OUTLINE_FRAME_STEPS',0)} [See related topics](#)

Expanding an outline to show more detail

You can expand rows or columns to show more detail.



[Show me a QuickDemo](#)

- 1. To expand a single outlined section of the sheet to a particular level, click the plus sign for the level you want to expand.
- 2. To expand all outlined sections of the sheet to a particular level, click the outline-level button corresponding to that level.

Outline-level button
to expand columns

Outline-level button
to expand rows

Plus sign

	A		
	A	A	B
	1		
	2		
	3	Regions	Q1
	8	Total	111

{button ,AL('H_EXPANDING_OUTLINES_DETAILS',1)} [See details](#)
{button ,AL('H_OUTLINING_SHEET_DATA_OVER;H_COLLAPSING_OUTLINES_STEPS;H_PROMOTING_ROWS_AND_COLUMNS_STEPS;H_DEMOTING_ROWS_AND_COLUMNS_STEPS;',0)} [See related topics](#)

Details: Expanding an outline to show more detail

Using menu commands to expand an outline

You must use menu commands to expand an outline if the outline frame is hidden.

Select the rows or columns on either side of the rows or columns you want to expand, and then choose Sheet - Outline - Expand. For example, to expand rows 4 and 5, select rows 3 and 6.

Using outline-level buttons to collapse and expand an outline

1-2-3 displays outline-level buttons for each level in the outline. The outer buttons collapse the outline and the inner buttons expand the outline. For example:

- Clicking the far left outline-level button for rows collapses the entire outline.
- Clicking the far right outline-level button for rows expands the entire outline.
- If the outline contains more than two levels, you can click a middle outline-level button to collapse or expand the outline to the level of detail you want to show. For example, if your outline has four row levels, clicking the third outline-level button from the left collapses or expands the outline to the third level.

Related SmartIcons



Expand columns or rows in the selected range



Collapse columns or rows in the selected range

{button ,AL('H_EXPANDING_OUTLINES_STEPS',1)} [Go to procedure](#)

Specifying how summary data relates to detail data

Before you create an outline, you must specify the position of summary rows and columns with respect to detail rows and columns. These settings are for the entire sheet.

1. Choose Sheet - Sheet Properties.



2. Click the Outline tab.



3. Under Row outline, select "Show outline frame" and then select:
 - "Above detail" if summary data is in a row above detail data
 - "Below detail" if summary data is in a row below detail data
4. Under Column outline, select "Show outline frame" and then select:
 - "To the left of detail" if summary data is in a column to the left of detail data
 - "To the right of detail" if summary data is in a column to the right of detail data
5. (Optional) Move, collapse, or close the InfoBox.

Note If you change the orientation for rows in an existing outline, the outline for rows is cleared. If you change the orientation for columns, the outline for columns is cleared.

{button ,AL('H_SETTING_OUTLINE_PROPERTIES_DETAILS',1)} [See details](#)

{button ,AL('H_OUTLINING_SHEET_DATA_OVER;H_HIDING_AND_SHOWING_THE_OUTLINE_FRAME_STEPS;',0)} [See related topics](#)

Details: Specifying how summary data relates to detail data

Showing the outline frame

Selecting "Show outline frame" under either Row outline or Column outline displays the outline frame.

Note If you turn off an outline frame and then promote or demote any rows or columns, 1-2-3 redisplay the outline frame.

{button ,AL('H_SETTING_OUTLINE_PROPERTIES_STEPS',1)} [Go to procedure](#)

Showing and hiding the outline frame

When you promote or demote rows or columns to create or change an outline, 1-2-3 displays the outline frame. If you do not want to show the outline frame, you can hide it.

1. Choose Sheet - Sheet Properties.



2. Click the Outline tab.



3. Under Row outline or Column outline, select or deselect "Show outline frame."

Note If you promote or demote rows or columns when the outline frame is hidden, 1-2-3 shows the frame.

{button ,AL(`H_OUTLINING_SHEET_DATA_OVER;';0)} [See related topics](#)

Removing an outline

You can remove an outline in the current sheet. This does not delete any sheet data.

1. Select any cell in the sheet with the outline you want to clear.
2. Choose Sheet - Outline - Clear Outline.



The column and row outline frames are no longer displayed and all collapsed rows and columns are expanded.

{button ,AL('H_CLEARING_OUTLINES_DETAILS',1)} [See details](#)

{button ,AL('H_OUTLINING_SHEET_DATA_OVER;',0)} [See related topics](#)

Details: Removing an outline

Hiding the outline frame

If you don't want to remove the outline, you can hide it using Sheet - Sheet Properties (Outline tab).

Note You cannot remove the outline frame when it is hidden.

Removing a single outline level

To remove a single outline level, select the columns or rows in the range and choose Sheet - Outline - Promote Rows or Sheet - Outline - Promote Columns.

{button ,AL('H_CLEARING_OUTLINES_STEPS',1)} [Go to procedure](#)

Overview: Print and page properties

When you choose File - Preview & Page Setup, 1-2-3 displays the current workbook in a window on the left and the Preview window on the right. 1-2-3 also opens the InfoBox so you can easily customize print and page settings as you preview your work.

When you change a setting in the InfoBox, 1-2-3 automatically updates the Preview window. 1-2-3 also saves print and page settings with the workbook file.

While previewing your work, you can change the following print and page settings:

- Choose what to print, including charts, maps, drawings, the sheet row and column frame, grid lines, formulas, and cell comments
- Set page numbers
- Change print margins
- Change the page orientation
- Center a selection on the page for printing
- Choose how to fit your work on the page
- Add headers and footers
- Include print titles on each page
- Create and use named print settings
- Change paper size

{button ,AL('H_NS_PRINT_OVER;H_PRINT_ADDING_HEADERS_AND_FOOTERS_STEPS;H_PRINT_ADDING_TITLES_ON_EACH_PAGE_STEPS;H_PRINT_CENTERING_DATA_STEPS;H_PRINT_CHANGE_MARGINS_STEPS;H_PRINT_CHANGING_PAGE_ORIENTATION_STEPS;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_CHOOSING_THE_PAPER_SIZE_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_CHANGING_FONTS_HEADERS_FOOTERS_STEPS;H_123_PRINTING_CELL_COMMENTS_AND_FORMULAS_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAME_STEPS',0)} [See related topics](#)

Changing font properties for headers and footers

You can change the font properties for each segment of a header or footer individually.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

2. Click the Text Format tab in the InfoBox.



3. Select the header or footer you want to change from the "Font properties for" list.
4. Select a different font, size, color, and any other attributes you want to change.

Note All the text in the segment will have the same properties.

5. Repeat steps 3 and 4 to change additional header or footer settings.

Tip To edit header or footer text, click Edit Header/Footer.

6. (Optional) Move, collapse, or close the InfoBox.

7. (Optional) Close the Preview window.

Note By default, 1-2-3 uses the largest font in the header or footer to determine how much space the header or footer needs at the top or bottom of the page. To change the space, click the Headers & Footers tab in the InfoBox, deselect the "Fit largest font" option, and enter the amount of space. Or you can drag the margin lines above and below the header or footer in the Preview window.

{button ,AL('H_PRINT_ADDING_HEADERS_AND_FOOTERS_STEPS';,0)} [See related topics](#)

Changing the print selection

You can change the part of the workbook you want to preview and print with the options in the Preview & Page Setup InfoBox or the Print dialog box, or you can make a new selection with the mouse or keyboard in the Workbook window.

If a selected range includes data and graphic objects, you can print only the data or graphic objects, charts, or maps that appear in the selected range or sheets.

Using the Include tab to change the print selection

1. If the InfoBox for Preview & Page Setup is not open, do one of the following.

- From the File menu, choose Preview & Page Setup.



- Click the Preview window, then from the Preview menu, choose Preview & Page Setup Properties.



2. Click the Include tab in the InfoBox.



3. Under What to print, select what you want to print.

Note If you want to print a range other than the one listed for "Range," use the mouse or keyboard to select the range in the Workbook window or choose File - Print, then select the range. You may need to update the Preview window to display the new selection before you can print it. For more information, see [Updating the Preview window](#).

4. If you have a workbook or collection selected, select "On separate pages" to print sheets in a workbook or ranges in a collection on separate pages or deselect this option to print the data consecutively on the same page.
5. Under Show, select the items you want to print. For example, to print a chart without any of the data in the sheet, deselect "Sheet data" and select "Charts, maps, and drawings."
6. (Optional) [Move, collapse, or close](#) the InfoBox.
7. (Optional) Close the Preview window.

{button ,AL('H_PRINT_CHANGING_SELECTION_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_NUMBERING_PAGES_STEP
S;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_123_PRINTING_CELL_COMMENTS_AND_FORMULAS_ST
EPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAMES_STEPS;H_123_PRINTING_WEB_TABLES_STE
PS',0)} [See related topics](#)

Details: Changing the print selection

Showing and printing components of a workbook

By default, 1-2-3 prints all data and charts, maps, drawings, and graphic objects that appear in the selected range or sheet(s). You can limit what 1-2-3 prints or print additional components, such as grid lines or formulas, by making selections in the Show list in the Include panel of the Preview & Page Setup InfoBox.

In a sheet that contains data, a chart, and a map, for example, you may want to print only the data. To do so, deselect "Charts, maps, drawings, and table frames" in the Show list.

To print	Select
Data entered in cells	Sheet data
Charts, maps, drawings, and graphic objects such as pictures; query tables, datalink tables, and Web tables with their frames	Charts, maps, drawings, and table frames
Cell comments in the print selection on a separate page	Cell comments
Formulas contained in the print selection on a separate page	Formulas
Grid lines in the print selection	Sheet grid lines
Row numbers and column letters	Sheet row and column frames

Printing table frames

Whether 1-2-3 prints the frame around a query table, Web table, datalink table, or version range depends on what is selected to print.

- If the table or version range is the only workbook component selected under What to Print in the Include panel of the InfoBox or under Print in the Print dialog box, 1-2-3 prints the table or version range without the frame.
- If the table or version range is part of a larger range or an entire sheet that is selected to print, 1-2-3 prints the table or version range with the frame, unless "Charts, maps, drawings, and table frames" is deselected in the Show list in the Include panel.

{button ,AL('H_PRINT_CHANGING_SELECTION_STEPS',1)} [Go to procedure](#)

Updating the Preview window

If you select a different part of the workbook to print and preview, the Preview window may need to be updated to show the new selection.

For example, if you use the mouse or keyboard in the workbook window to select a new range to print while the Preview window is open, the Preview window and the "What to print" section of the Preview & Page Setup InfoBox do not automatically show the new selection.

1. To open the Preview & Page Setup InfoBox, click the Preview window, then from the Preview menu, choose Preview & Page Setup Properties.



2. Click the Include tab in the Preview & Page Setup InfoBox.



Under "Current selection" 1-2-3 shows the currently selected range, collection, or object.

3. To preview the selection listed under "Current selection," click Update Preview.

Note When you use the "What to print" settings on the Include tab or the Print dialog box to change the print selection, or if you choose File - Preview & Page Setup, 1-2-3 automatically updates the Preview window.

{button ,AL(`;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_CHANGING_SELECTION_STEPS',0)} [See related topics](#)

Numbering printed pages

You can print all pages or you can specify which pages to print and how to number them.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

2. Click the Headers & Footers tab in the InfoBox.

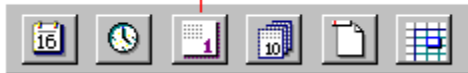


3. From the "Text of" list, select the header or footer in which you want to print the page number.

4. Click in the text box.

5. Click the page number icon.

Page number



1-2-3 enters a # (pound sign) in the box.

Tip To identify each icon, hold the mouse pointer over an icon until you see a short description.

6. Click the Printer tab in the InfoBox.



7. Under Pages, select one of the following:

- All pages -- Prints all pages
- Pages From and To -- Prints from the first to the last page you specify

8. In "Start page numbering with," enter the number for the first page you print.

9. (Optional) Move, collapse, or close the InfoBox.

10. (Optional) Close the Preview window.

{button ,AL('H_PRINT_NUMBERING_PAGES_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_ADDING_HEADERS_AND_FOOTERS_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVE
R',0)} [See related topics](#)

Details: Numbering printed pages

If you select All pages, 1-2-3 begins numbering pages with 1 unless you specify a different starting number. However, you can also customize how 1-2-3 numbers the pages.

Example

Suppose you are previewing a 10-page document. You made some changes to data on pages 4, 5, and 6, and you want to reprint just those three pages. To print pages 4, 5, and 6 with the correct page numbers, you can specify the following print settings:

- Pages from 4
- Pages to 6
- Start page numbering with 4

Related SmartIcons

Displays the Print dialog box



Prints the current selection



Closes the active window

{button ,AL('H_PRINT_NUMBERING_PAGES_STEPS',1)} [Go to procedure](#)

Changing print margins

The margins appear as dashed lines in the Preview window. You can change the top, bottom, left, and right print margins using the InfoBox, or you can drag the margin lines in the Preview window. If you add a header or footer, additional dashed lines indicate the header or footer area.

Note The margin lines appear only when the Preview window shows a single page.



[Show me a QuickDemo](#)

Changing print margins in the InfoBox

1. From the File menu, choose Preview & Page Setup.



- 1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.
2. Click the Layout tab in the InfoBox.

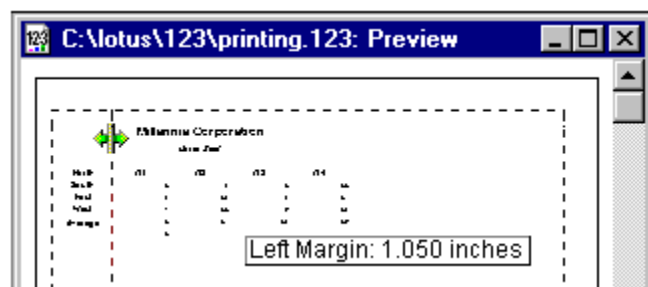


3. Under Margins, enter a measurement for the left, right, top, or bottom print margins.
4. (Optional) Move, collapse, or close the InfoBox.
5. (Optional) Close the Preview window.

Dragging print margins in the Preview window

1. In the Preview window, position the mouse pointer over the margin line that you want to change so that the pointer changes shape.
2. Drag the margin line.

As you drag, an indicator box appears displaying the margin size.



3. Release the mouse button.

{button ,AL('H_PRINT_CHANGE_MARGINS_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER',0)} [See related topics](#)

Details: Changing print margins

Displaying margin lines in the Preview window

By default, 1-2-3 displays dashed lines in the Preview window to show the margins. To turn off the margin lines, make sure the Preview window is active, then from the Preview menu, choose Hide Margins. To turn on the display of margin lines, from the Preview menu, choose Show Margins.



Show/Hide margin, header, and footer lines

Tips

- If the minimum margins for your printer are larger than what you entered, 1-2-3 automatically adjusts the margins.
- The top and bottom margins together cannot exceed the height of the page. The right and left margins together cannot exceed the width of the page.
- You can set the unit of measurement for margins in the Windows control panel. To display these settings, click the Start button, choose Settings - Control Panel, and then open Regional Settings.

{button ,AL('H_PRINT_CHANGE_MARGINS_STEPS',1)} [Go to procedure](#)

Changing page orientation

You can print your work in portrait or landscape mode.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

2. Click the Layout tab in the InfoBox.



3. Under Orientation, click an icon to select one of the following:

Landscape -  - Portrait

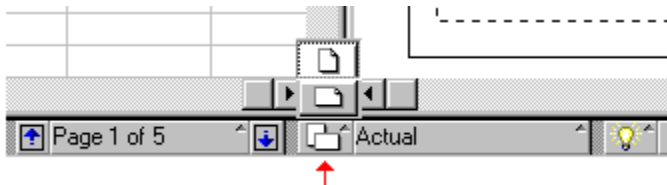
- Landscape -- Prints sideways
- Portrait -- Prints upright

Tip Use landscape mode when your sheet is wider than a standard page. If you are printing many columns of data, landscape printing may help you fit all the columns on a single page.

4. (Optional) Move, collapse, or close the InfoBox.

5. (Optional) Close the Preview window.

Tip You can also use the status bar to change the page orientation.



Related SmartIcons



Prints sideways in landscape mode



Prints upright in portrait mode



Closes the active window

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_CENTERING_DATA_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS';,0)} See related topics

Centering data on the printed page

Use the [InfoBox](#) to center your data on a printed page.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the [Preview window](#) on the right. 1-2-3 also opens the InfoBox.

2. Click the Layout tab in the InfoBox.



3. Under Center, select one or both options. Selecting both options centers the data in both directions.
4. (Optional) [Move, collapse, or close](#) the InfoBox.
5. (Optional) Close the Preview window.

Related SmartIcons



Centers left to right



Centers top to bottom



Centers in both directions



Closes the active window

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_CHANGING_PAGE_ORIENTATION_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;',0)} [See related topics](#)

Fitting your work on the printed page

You can reduce or enlarge the size of printed work to fit on a single page.

1. From the File menu, choose Preview & Page Setup.



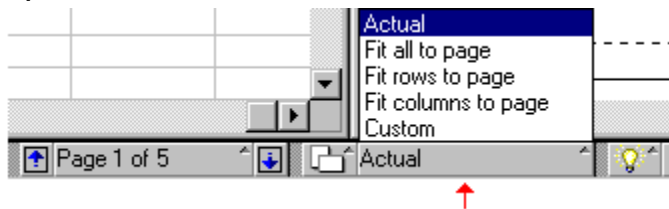
1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

2. Click the Layout tab in the InfoBox.



3. Under Page fit, select an option.
4. If you selected "Custom," enter a percentage (from 15 to 1000) in the "Percent" box to shrink or enlarge the printed data.
5. (Optional) Move, collapse, or close the InfoBox.
6. (Optional) Close the Preview window.

Tip You can also use the status bar to choose how to fit the data on the printed page.



{button ,AL('H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_CENTERING_DATA_STEPS;H_PRINT_CHANGING_PAGE_ORIENTATION_STEPS',0)} [See related topics](#)

Details: Fitting your work on the printed page

Options: Preview & Page Setup InfoBox (Layout tab)

These options let you choose how to scale your work for the printed page.

Note If you print an entire workbook that contains more than one sheet or a collection of ranges, you can use the Include panel in the InfoBox to control whether 1-2-3 prints each sheet or range on a new page or prints the data from multiple sheets or ranges consecutively on the same page.

Specifying how to scale selected data for printing

- Actual -- Prints the selection in the size it appears on the screen
- Fit all to page -- Fits all the data on a single printed page
- Fit rows to page -- Shrinks all the rows of data to fit on a single printed page
- Fit columns to page -- Shrinks all the columns of data to fit on a single printed page
- Custom -- Shrinks or enlarges the printed data by a percentage you enter. You can enter a percentage from 15 to 1000. For example, enter 75 to shrink the selection to 75% of its original size.

Specifying how to scale an object for printing such as a chart or map without sheet data

- Actual -- Same as above
- Fill page -- Enlarges the object to fill the page
- Fill page, but keep proportions -- Enlarges the object with the same proportions
- Custom -- Same as above

Related SmartIcons



Shrinks columns to fit the printed page



Shrinks rows to fit the printed page



Fits all data to fit the printed page

{button ,AL('H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS',1)} [Go to procedure](#)

Adding headers and footers

A header is text printed below the top margin on each page. A footer is text printed above the bottom margin. A header or footer can have three segments: left, center, and right.



Show me a QuickDemo

1. From the File menu, choose Preview & Page Setup.



- 1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.
2. Click the Headers & Footers tab in the InfoBox.



3. Under Headers and footers, select a header or footer segment from the "Text of" list.
4. Do one or both of the following:
 - Type text for the header or footer in the box. Press ENTER to begin a new line.
 - Click the icons to automatically enter the information represented by each icon.



If you click an icon, 1-2-3 enters a symbol in the InfoBox but displays the actual information in the Preview window. The date and time are taken from the computer's internal clock.

Tip To identify each icon, hold the mouse pointer over an icon until you see a short description.

5. Click the Confirm button to show the header or footer in the Preview window.



6. Repeat steps 3 through 5 to enter text for other header or footer segments.

Note By default, 1-2-3 uses the largest font in the header or footer to determine how much space the header or footer needs at the top or bottom of the page. To change the space, deselect the "Fit largest font" option and enter the amount of space. Or you can drag the margin lines in the Preview window.

7. To change the font properties of the header or footer, click Font.
8. (Optional) Move, collapse, or close the InfoBox.
9. (Optional) Close the Preview window.

{button ,AL('H_PRINT_ADDING_HEADERS_AND_FOOTERS_DETAILS',1)} See details

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_CHANGING_FONTS_HEADERS_FOOTERS_STEPS;H_PRINT_NUMBERING_PAGES_STEPS',0)} See related topics

Details: Adding headers and footers

Header and footer symbols

To enter the following information for a header or footer, you can click the icons in the [InfoBox](#) or type the following symbols in the text boxes under Headers and footers.

To enter	Type
The date of printing	@ (at sign)
The time of printing	+ (plus sign)
Consecutive page numbers	# (pound sign)
The total number of pages	% (percent sign)
The file name	^ (caret)
The contents of a cell	\ (backslash) followed by a cell address or range name

You can combine the date, time, page number, and file name with other header and footer text that you type. For example, you can type Page and then enter # (pound sign), or click the page number icon, to print Page 1, Page 2, Page 3, and so on.

Header/footer entry	Printed header/footer
Page #	Page 1, Page 2, and so on
Page # of %	Page 1 of 10, page 2 of 10, and so on
\A:A1	The text entered in cell A:A1
@ - page #	The date followed by "page - " and the page number
^ - @	The file name followed by the date

Tips

- You can enter up to 255 characters for each part of a header or footer.
- 1-2-3 cannot print headers and footers that are larger than the printable area on the page.
- To prevent the segments of a header or footer from overlapping, display the text on more than one line by using the ENTER key to begin new lines, delete some of the text, or enter the text in a different location.
- You can set the unit of measurement for headers and footers in the Windows control panel. To display these settings, click the Start button, choose Settings - Control Panel, and then open Regional Settings.
- If you use @ (at sign) or + (plus sign) to enter the date or time, 1-2-3 updates the date and time each time you print. If you do not want the date and time to change each time you print, you can type them in.
- To print @ (at sign), + (plus sign), # (pound sign), % (percent sign), ^ (caret), or \ (backslash) in a header or footer, enter an ' (apostrophe) immediately before the character. For example, enter '# to print #.
- When you use \ followed by a cell address or range name to specify header or footer text,
 - You cannot enter any other symbols, numbers, or letters as part of the header or footer. The \ followed by a cell address or range name must be used by itself. This is true whether you type the cell address or click the icon to enter it for you.
 - 1-2-3 uses the contents of the first cell of the range only.

Displaying margin lines in the Preview window

When you add a header or footer, 1-2-3 displays dashed lines in the Preview window to show their margins. To turn off all margin lines, make sure the Preview window is active, then from the Preview menu, choose Hide Margins. To turn on the display of margin lines, from the Preview menu, choose Show Margins. The margin lines are displayed only when the Preview window shows a single page.



Show/Hide margins

{button ,AL('H_PRINT_ADDING_HEADERS_AND_FOOTERS_STEPS',1)} [Go to procedure](#)

Printing titles on each page

Titles can clarify data in your printed sheet by providing the same headings in the first row and left column of each printed page.

Note Printing titles is similar to freezing columns and row titles with View - Titles. Titles specified in the Preview & Page Setup InfoBox are only frozen in the printed output.

1. From the File menu, choose Preview & Page Setup.



- 1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.
2. Click the Headers & Footers tab in the InfoBox.



3. Under Print as titles on each page, enter a range for "Rows," "Columns," or both, or use the range selector to specify the range(s).

Data in the columns will print along the left edge of each page, and data in the rows will print along the top edge of each page.

4. (Optional) Move, collapse, or close the InfoBox.
5. (Optional) Close the Preview window.

Tip To remove titles, highlight the range in "Rows" or "Columns," then press DEL.

{button ,AL('H_PRINT_ADDING_TITLES_ON_EACH_PAGE_DETAILS',1)} See details

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAME S_STEPS',0)} See related topics

Details: Printing titles on each page

Example



Size of the titles

You need to specify only one cell from each column or row for the titles. Although you can select as many contiguous columns and rows as you like for titles, it is practical to set only a few columns and rows so your data will fit on the page.

1-2-3 uses only the number of rows and columns for your titles that correspond to the size of your print range. For example, if you select B1..M15 as a print range and column A for column print titles, 1-2-3 prints the contents of A1..A15 down the left edge of each page.

Related SmartIcons



Sets columns as print titles



Sets rows as print titles

{button ,AL('H_PRINT_ADDING_TITLES_ON_EACH_PAGE_STEPS',1)} [Go to procedure](#)

Changing the paper size

You can choose from the paper sizes supported by the current printer or you can set a custom paper size.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

2. Click the Printer tab in the InfoBox.



3. Select a size from the list or select "Custom" if the printer driver supports a custom setting.

If you selected "Custom," specify the height and width of the paper.

4. (Optional) Move, collapse, or close the InfoBox.

5. (Optional) Close the Preview window.

{button ,AL('H_PRINT_AND_PAGE_PROPERTIES_OVER','0')} [See related topics](#)

Overview: Named print styles

After you have used the [InfoBox](#) to customize print and page settings, you can name and save these settings as print styles to use any time you print.

Use named print styles to:

- Print different kinds of data using the same print and page settings
- Print the same data in different ways; for example, with and without grid lines
- Create variations of the same settings for different files and kinds of data

1-2-3 saves named print styles with the current workbook and includes all the print and page settings you chose except the printer.

Notes

In earlier releases of 1-2-3, this feature was called "named page settings."

You can retrieve settings from .AL3 files, but you can no longer save settings to these files.

```
{button ,AL('H_NS_CREATE_STYLES_STEPS;H_NS_MANAGE_STYLES_COPY_FROM_STEPS;H_NS_MANAGE_STYLES_DELETE_STEPS;H_NS_MANAGE_STYLES_RENAME_STEPS;H_NS_REDEFINE_STYLES_STEPS;H_NS_RESET_PRINT_STYLES_STEPS;H_NS_RETRIEVE_PRINT_STYLE_FROM_PREVIOUS_123_STEPS;H_NS_USING_STYLES_STEPS',0)} See related topics
```

Creating a named print style

After you have used the [InfoBox](#) to customize print and page settings, you can name and save these settings with the current workbook to use anytime you print.

1. From the File menu, choose Preview & Page Setup.



2. Review your work in the [Preview window](#) and use the InfoBox to change the print and page settings.
3. Click the Named Style tab in the InfoBox.



4. Click Create Style.
5. Enter a name (up to 64 characters long) for the print style.
6. (Optional) Enter a description for the style.
7. (Optional) Select "Save print selection as part of the style."

If you select this option, 1-2-3 saves the selected range as part of the style. This lets you print the same range with the same settings each time.

8. Click OK to save the named print style with the current workbook.
9. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_NS_PRINT_OVER',0)} [See related topics](#)

Applying a named print style

You can apply an existing named print style to the current workbook.

1. From the File menu, choose Preview & Page Setup.



2. Click the Named Style tab in the InfoBox.



3. From the "Print style name" list, select the print style you want to apply to the current workbook.
1-2-3 immediately applies the settings for the style you selected to the current workbook, and 1-2-3 will use these settings to print until you change them.
4. (Optional) Move, collapse, or close the InfoBox.

{button ,AL(`H_NS_PRINT_OVER',0)} See related topics

Redefining a named print style

1. From the File menu, choose Preview & Page Setup.



2. Change the print and page settings you want to redefine.
3. Click the Named Style tab in the InfoBox.



4. Click Redefine Style.
5. Select the name of the print style you want to redefine.
Note If you select Default, the most recent print settings you specified become the default print settings.
6. (Optional) Enter a new description of the style, or edit the current one.
7. (Optional) Select "Save print selection as part of the style."
If you select this option, 1-2-3 saves the selected range as part of the style. This lets you print the same range with the same settings each time.
8. Click OK to save the print style with the current settings.
9. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_NS_PRINT_OVER;H_NS_RESET_PRINT_STYLES_STEPS;',0)} [See related topics](#)

Resetting a named print style

If you applied a named print style and then modified print settings in the [InfoBox](#), you can undo the changes by resetting the style.

1. From the File menu, choose Preview & Page Setup.



2. Click the Named Style tab in the InfoBox.



3. Click Reset to Style.
4. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_NS_PRINT_OVER;H_NS_REDEFINE_STYLES_STEPS',0)} [See related topics](#)

Retrieving a print style from an earlier release of 1-2-3

You can retrieve named page settings saved in an .AL3 file from an earlier release of 1-2-3.

1. From the File menu, choose Preview & Page Setup.



2. Click the Named Style tab in the InfoBox.



3. Click Retrieve.
4. In the Retrieve Named Settings dialog box, specify the name of the .AL3 file you want to use.
5. Click Open.
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_NS_PRINT_OVER',0)} See related topics

Manage Styles dialog box for print styles

Use this dialog box to manage named print styles.

Choose a task

[Renaming a print style](#)

[Deleting a named print style](#)

[Copying a named print style from another file](#)

{button ,AL('H_NS_PRINT_OVER',0)} [See related topics](#)

Renaming a print style

You can change the name of a print style.

1. From the File menu, choose Preview & Page Setup.



2. Click the Named Style tab in the [InfoBox](#).



3. Click Manage Styles.
4. Select the style you want to rename from the list.
5. Click Rename.
6. In the "To" box, edit the current name or enter a new name (up to 64 characters long).
7. (Optional) Edit the current description of the style, or enter a new one.
8. Click OK to rename the style.
9. When you return to the Manage Styles dialog box, click Done.
10. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_NS_PRINT_OVER',0)} [See related topics](#)

Deleting a named print style

1. From the File menu, choose Preview & Page Setup.



2. Click the Named Style tab in the InfoBox.



3. Click Manage Styles.
4. Select the style you want to delete from the list.
5. Click Delete.
6. Click Done.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL(`H_NS_PRINT_OVER',0)} [See related topics](#)

Copying a named print style from another file

To copy named print styles between files, both workbook files must be open.

1. Open both workbook files.
2. Switch to the file into which you want to copy the named style, then from the File menu, choose Preview & Page Setup.



3. Click the Named Style tab in the InfoBox.



4. Click Manage Styles.
5. Click Copy From.
6. Under Workbook, select the workbook that has the named style you want to copy.
7. Under Print style name, select the style you want to copy.
8. Click Copy to copy the selected named print style into the current workbook.
9. When you return to the Manage Styles dialog box, click Done.
10. (Optional) Move, collapse, or close the InfoBox.

{button ,AL(`H_NS_PRINT_OVER',0)} [See related topics](#)

Print dialog box

Use the Print dialog box to print your work.

Choose a task

[Previewing your work before printing](#)

[Quick printing](#)

[Printing a workbook](#)

[Printing the current sheet](#)

[Printing a range](#)

[Printing graphic objects, charts, tables, and maps](#)

[Printing to a file](#)

[Selecting a printer](#)

[Changing printer properties](#)

{button ,AL('H_PRINT_OVER;H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_AND_PAGE_PROPERTIES_OVE
R',0)} [See related topics](#)

Overview: Printing

In 1-2-3, you can print an entire workbook, the current sheet, or any selected range, collection, table, or graphic object. You can print your work quickly by using the default settings, or you can enhance your printed work by using the [InfoBox](#) to customize the print and page settings.

Quick printing

To print the entire workbook or just selected sheets, ranges, or pages quickly, use File - Print.



For more information, see [Quick printing](#).

Previewing your work before printing

To preview your work before you print and to have greater control over the way the printed page looks, use File - Preview & Page Setup.



When you open the [Preview window](#), 1-2-3 displays the current workbook in a window on the left, and displays the Preview window on the right. 1-2-3 also opens the InfoBox so you can change print and page settings.

For more information, see [Previewing your work before printing](#).

Changing the page setup while you preview

With the tiled Preview and Workbook windows, you can change print settings and immediately preview those changes before you print your work.

For example, you can:

- Include charts, maps, and graphics when you print
- Print cell comments and formulas
- Print with or without grid lines or row and column frames
- Add headers, footers, and titles
- Shrink or enlarge data to fill the page
- Center your data horizontally or vertically
- Change the page orientation
- Print collections or multiple sheets on one page or separate pages
- Save and reuse customized print and page settings as named print styles
- Change print and page settings as you preview your work

For more information, see [Overview: Print and page properties](#).

Printing the finished product

When you are ready to print your work, you can use either File - Print or the Quick Print icon to print with the current page setup settings.



Displays the Print dialog box



Prints now, without displaying the Print dialog box

```
{button ,AL('H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_QUICK_STEPS;H_PRINT_A_WORKBOOK_STEPS;  
H_PRINT_A_SHEET_STEPS;H_PRINT_A_RANGE_STEPS;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS;H_  
PRINT_TO_FILE_STEPS;H_PRINT_ADDING_A_PAGE_BREAK_STEPS;H_PRINT_REMOVING_A_PAGE_BRE  
AK_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_123_PRINTING_CELL_COMMENTS_AND_FORM
```

ULAS_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAMES_STEPS',0)} [See related topics](#)

Quick printing

The quickest way to print is to use the default print and page settings.

1. From the File menu, choose Print.



2. Under Printer, select the printer you want to use.
3. Under Print, select what you want to print.

If you want to print a "Selected Range," enter a range in the box, or use the [range selector](#) to specify the range.

4. (Optional) Under Pages, select the pages to print and how to number them.
5. (Optional) Under Copies, select the number of copies to print and whether to collate them.
6. Click Print.

Tip To bypass the Print dialog box, use the Quick Print icon to print your selection. This icon appears when the Preview window is open. To add this icon to the Universal SmartIcons set, use File - User Setup - SmartIcons Setup.



{button ,AL('H_PRINT_QUICK_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_A_WORKBOOK_STEPS;H_PRINT_A_SHEET_STEPS;H_PRINT_A_RANGE_STEPS;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS;H_PRINT_TO_FILE_STEPS;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER',0)} [See related topics](#)

Details: Quick printing**Installing a printer**

If you need to install a printer, see the documentation for your operating system.

Printing defaults

If you selected only a single cell and you have not saved a print range, 1-2-3 prints the current sheet. By default, 1-2-3 prints charts, maps, and other graphic objects within your selected print range.

Quick printing tables

To print a Web table, query table, or datalink table quickly, right-click the table's title bar, then choose the Quick-Print Table command from the shortcut menu.

{button ,AL('H_PRINT_QUICK_STEPS',1)} Go to procedure

Printing a workbook

If you print a workbook that contains more than one sheet, you can control whether 1-2-3 prints each sheet on a new page or prints the data from multiple sheets consecutively on the same page.

1. From the File menu, choose Print.



2. Under Printer, select the printer you want to use.
3. Under Print, select "Entire workbook."
4. Select "On separate pages" to print sheets on separate pages or deselect this option to print the sheets consecutively on the same page.
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.

Note If you click Preview & Page Setup, you can preview your work and customize print and page settings before you print. Then you can use the Include tab in the [InfoBox](#) to select how much of the workbook to print.

7. Click Print.

{button ,AL('H_PRINT_A_WORKBOOK_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAMES_STEPS',0)} [See related topics](#)

Details: Printing a workbook

When you preview or print a workbook, the automatic page breaks appear as gray lines in the sheet. 1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page.

If the pages do not automatically break where you want, you can add page breaks to keep related data together or to print certain data on a separate page.

{button ,AL('H_PRINT_A_WORKBOOK_STEPS',1)} Go to procedure

{button ,AL('H_PRINT_ADDING_A_PAGE_BREAK_STEPS',0)} See related topics

Printing the current sheet

1. Move the cell pointer to the sheet you want to print.
2. From the File menu, choose Print.



3. Under Printer, select the printer you want to use.
4. Under Print, select "Current sheet."
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.

Note If you click Preview & Page Setup, you can preview your work and customize print and page settings before you print. Then you can use the Include tab and the Printer tab in the [InfoBox](#) to select how much of the workbook to print.

7. Click Print.

Tip 1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page. If the pages do not automatically break where you want, you can add page breaks.

{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_ADDING_A_PAGE_BREAK_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAMES_STEPS',0)} [See related topics](#)

Printing a range

You can print a range or a collection of ranges.

When you print a collection or 3D range, you can control whether 1-2-3 prints the ranges in the collection or sheets in the 3D range on separate pages or consecutively on the same page.

1. From the File menu, choose Print.



2. Under Printer, select the printer you want to use.
3. Under Print, select "Selected Range." Enter the range(s) you want to print or use the range selector to specify the range.
4. If you are printing a collection or 3D range, select "On separate pages" to print the ranges or sheets on separate pages or deselect this setting to print them consecutively on the same page.
5. (Optional) Under Pages, select the pages to print and how to number them.
6. (Optional) Under Copies, select the number of copies to print and whether to collate them.

Note If you click Preview & Page Setup, you can preview your work and customize print and page settings before you print. Then you can use the Include tab and Printer tab in the InfoBox to select how much of the workbook to print.

7. Click Print.

Tip 1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page. If the pages do not automatically break where you want, you can add page breaks.

{button ,AL('H_PRINT_A_RANGE_DETAILS',1)} See details

{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_ADDING_A_PAGE_BREAK_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAMES_STEPS',0)} See related topics

Details: Printing a range

Selecting a range

- To select a range before you open the Print dialog box, highlight the range before you choose File - Print. When you open the dialog box, the address for the range you highlighted appears in the "Selected Range" box.
- To print using a named range, click in the "Selected range" box. Then click the [navigator](#) and select a range name from the list.

Printing a collection

A collection is a group of noncontiguous cells.



- To select a collection before you open the Print dialog box, select the first cell or range, hold down CTRL, and select additional ranges.
- To specify a collection from the Print dialog box, you can enter each range address separated by a semicolon.

Printing a 3D range

A 3D range is a range that spans more than one sheet. When you print a 3D range, you can choose to print each sheet of the range on a separate page or consecutively on the same page. To print each sheet of the range on a separate page, click the "On separate pages" box in the Print dialog box or on the Include panel of the InfoBox for Preview & Page Setup.

{button ,AL('H_PRINT_A_RANGE_STEPS',1)} [Go to procedure](#)

Printing graphic objects, charts, tables, and maps

1-2-3 automatically prints graphic objects, charts, tables, or maps that appear in the selected range(s) or sheet(s). You can also print graphic objects, charts, tables, or maps without sheet data.

1. Select the graphic object, chart, table, or map you want to print.
2. From the File menu, choose Print.



3. Under Printer, select the printer you want to use.

Note If you click Preview & Page Setup, you can preview your work and customize print and page settings before you print. Then you can use the Include tab and Printer tab in the InfoBox to select how much of the workbook to print.

4. Click Print.

For information about printing frames with query tables, Web tables, datalink tables, and version ranges, see [Details: Changing the print selection](#).

```
{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_PREVIEW_WINDOW_OVER;H_123_PRINTING_WEB_TABLES_STEPS',0)} See related topics
```

Printing to a file

You can save data from a 1-2-3 workbook to a .PRN file so you can print it at another time.

Note This .PRN file contains information specific to the printer driver that you are using with 1-2-3. When you print the file, use the same type of printer you were using with 1-2-3 when you created the file.

1. (Optional) Select the data you want to print to a file.
2. From the File menu, choose Print.



3. Under Printer, select "Print to file."
4. Under Print, select what you want to print.
5. Click Print.
6. In the Print to File dialog box, specify the following:
 - The directory in which to save the file
 - A name for the file
7. Click OK to save the data in a file.

1-2-3 saves the data in a file with a .PRN extension.

Tip To save your data to a file in a text format, use File - Save As and save the file as a Text (.TXT) file.

{button ,AL('H_PRINT_OVER;H_PRINT_CHANGING_SELECTION_STEPS;',0)} [See related topics](#)

Printing cell comments and formulas

When you print a sheet or range that contains formulas or cell comments, you can print the formulas and cell comments on an accompanying page. For example, the following printed formula and cell comment define the contents of cell A:D3:

A:D3 @SUM(A3..C3)

A:D3 Total sales for first three quarters.

1. From the File menu, choose Print.



2. Under Print, select what you want to print.
3. Click Preview & Page Setup.
4. In the Preview & Page Setup InfoBox, click the Include tab.



5. To print cell comments on a separate page, select "Cell comments" in the Show list.
6. To print formulas on a separate page, select "Formulas" in the Show list.

Tip To help you identify the cell addresses, include the grid lines and row and column frames with the printed data.

7. (Optional) Move, collapse, or close the InfoBox.
8. (Optional) Close the Preview window.
9. From the File menu, choose Print, then click Print.



Note 1-2-3 uses the current settings in the Preview & Page Setup InfoBox when you print. To print subsequent data without cell comments or formulas, deselect "Cell comments" or "Formulas" in the Show list.

{button ,AL(`H_CREATING_A_CELL_COMMENT_STEPS;H_123_PRINTING_SHEET_GRID_LINES_AND_FRAME
S_STEPS;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_OVER;H_PRINT_PREVIEW_YOUR_WORK_
STEPS',0)} See related topics

Printing sheet grid lines and frames

You can print sheet grid lines with your data. You can also print the row numbers and column letters, which makes it easier to identify cell addresses on the printed output.

1. From the File menu, choose Print.



2. Under Print, select what you want to print.
3. Click Preview & Page Setup.
4. In the Preview & Page Setup InfoBox, click the Include tab.



5. To print sheet grid lines, select "Sheet grid lines" in the Show list.
6. To print row numbers and column letters, select "Sheet row and column frames" in the Show list.
7. (Optional) Move, collapse, or close the InfoBox.
8. (Optional) Close the Preview window.
9. From the File menu, choose Print, then click Print.



Note 1-2-3 uses the current settings in the Preview & Page Setup InfoBox when you print. To print subsequent data without sheet grid lines or frames, deselect "Sheet grid lines" or "Sheet row and column frames" in the Show list.

{button ,AL('H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_PRINT_CHANGING_SELECTION_STEP
S;H_PRINT_OVER;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_123_PRINTING_CELL_COMMENTS_AND_
FORMULAS_STEPS',0)} [See related topics](#)

Printing text in the Script Editor

You can print the current script, all scripts for a selected object, or all scripts for the current workbook.

1. From the File menu in the Script Editor window, choose Print Script.



2. Under Printer, select the printer you want to use.
3. Under Pages, specify the pages to print and how you want to number them.
4. Under Print, select what you want to print.
5. (Optional) Under Copies, specify the number of copies you want to print and whether you want to collate them.
6. Click Print.

{button ,AL('H_LOTUSSCRIPT_INDEX_TOPIC_OVER;H_INSTALLING_123_SCRIPT_HELP_STEPS;H_PRINT_OVER;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_CHANGING_PRINTER_PROPERTIES_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_ADDING_A_PAGE_BREAK_STEPS;H_PRINT_NUMBERING_PAGES_STEPS;H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_TO_FILE_STEPS',0)} See related topics

Overview: The Preview window

When you open the Preview window, 1-2-3 displays the current workbook in a window on the left and the Preview window on the right. 1-2-3 also opens the [InfoBox](#) so you can change print and page settings.

Changing the page setup while you preview

With the tiled Preview and Worksheet windows, you can change print settings and immediately preview those changes before you print your work.

For example, you can see in the Preview window where page breaks will occur. If the pages do not automatically break where you want, you can leave the Preview window open while you insert page breaks in the workbook. You can also use the InfoBox to tell 1-2-3 to fit all the data on one page.

Tip When you click the Workbook window, the InfoBox displays settings for the workbook. To display the Preview & Page Setup settings in the InfoBox, click the Preview window title bar.

Use the Preview window and the InfoBox to add and view headers, footers, and other printing details before you print your work. If you make changes to print and page settings or to the selected data while you are previewing your work, you see the results immediately in the Preview window.

The Preview window is like any other window--you can move it, size it, minimize it, maximize it, and close it. When you close it, 1-2-3 restores the Workbook window to its original size and placement.

Navigating in the Preview window

In the Preview window, you can view part of a page or object in great detail or view up to nine pages at once.

Click anywhere in the Preview window to zoom in or out, depending on what you are viewing. If you cannot see all of your work, use the horizontal and vertical scroll bars in the Preview window.

You can also use the Preview menu commands or the Print Preview SmartIcons to display one or more pages in the Preview window.

Tip Right-click in the Preview window to display the shortcut menu for previewing and printing your work.

Closing the Preview window

When you close the Preview window, the Workbook window returns to its former size. To close the Preview window, you can:

- Click the icon in the left corner of the Preview window title bar, then choose Close from the [control menu](#).
- Click the close button in the right corner of the Preview window title bar.



{button ,AL('H_PRINT_PREVIEW_KEY_MOUSE_SHORTCUTS_OVER;H_PRINT_PREVIEW_ZOOMING_IN_AND_OUT_STEPS;H_PRINT_PREVIEW_YOUR_WORK_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_123_UPDATING_THE_PREVIEW_WINDOW_STEPS',0)} [See related topics](#)

Overview: Keyboard and mouse shortcuts in the Preview window

You can use the keyboard or the mouse in the Preview window to zoom in and out of pages and to navigate between pages.

Tip Right-click in the Preview window to display the shortcut menu for previewing and printing your work.

Keyboard shortcuts

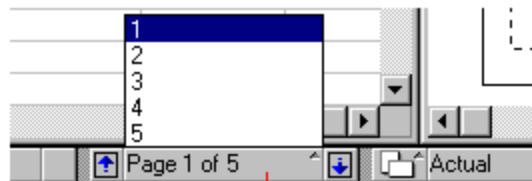
You can view up to nine pages in the Preview window. When you use keyboard shortcuts, 1-2-3 displays different amounts of information in the Preview window depending on how many pages you are viewing at the time. Here is a quick summary of how you can work with keyboard shortcuts in the Preview window.

Press...	While previewing...	To do this...
↓	1 page	Scroll down within a page or view the next page
	2 - 9 pages	Scroll down to view the next row of pages
	1 page	Scroll up within a page or view the previous page
	2 - 9 pages	Scroll up to view the previous row of pages
PGDN	1 page	Scroll down to view the next page
	2 - 9 pages	Scroll down to view the next screen of pages
PGUP	1 page	Scroll up to view the previous page
	2 - 9 pages	Scroll up to view the previous screen of pages
+ (Plus)	1 page	Zoom in one level
	2 - 9 pages	Zoom in to display fewer pages
- (Minus)	1 page	Zoom out one level
	2 - 9 pages	Zoom out to display more pages

Mouse shortcuts

When you are previewing your print job, you can use the status bar to:

- preview different pages.



Click the blue arrows to preview pages in order...
...or click here to preview any page

- change the page orientation.



- choose how to fit the data on the printed page.



Related SmartIcons



Previews your print selection



Displays the Preview & Page Setup InfoBox



Previews the next page



Previews the previous page



Previews one page



Previews two pages



Previews four pages



Previews nine pages



Hides/shows margin lines in the Preview window



Displays the Print dialog box



Prints now, without displaying the Print dialog box



Closes the active window

```
{button ,AL('^;H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_PREVIEW_ZOOMING_IN_AND_OUT_STEPS;','0)}  
  See related topics
```

Previewing your work before printing

The Preview window lets you preview your work while you make formatting changes. Previewing lets you see how pages will look with the current print and page settings before you print them.

1. From the File menu, choose Print.



2. Under Print, select what you want to print.

3. Click Preview & Page Setup.

1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.

Tip Right-click in the Preview window to display the shortcut menu for previewing and printing your work.

4. (Optional) Use the InfoBox to change print and page settings for the current print selection. For more information, see Overview: Print and page properties.

1-2-3 instantly updates the Preview window as you change these settings. You can move, collapse, or close the InfoBox.

5. When you are ready to print, click the Quick Print icon.



6. To close the Preview window, do one of the following:

- Click the icon in the left corner of the Preview window title bar, then choose Close from the control menu.
- Click the close button in the right corner of the Preview window title bar.

When you close the Preview window, the Workbook window returns to its former size.






Note If you click the Workbook window, the InfoBox displays properties for the selection in the sheet. Click the Preview window to redisplay the Preview & Page Setup properties in the InfoBox.

{button ,AL('H_PRINT_PREVIEW_YOUR_WORK_DETAILS',1)} See details

{button ,AL('H_PRINT_PREVIEW_WINDOW_OVER;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_OVER
;H_PRINT_PREVIEW_KEY_MOUSE_SHORTCUTS_OVER;H_PRINT_PREVIEW_ZOOMING_IN_AND_OUT_ST
EPS;H_USING_THE_INFOBOX_STEPS;H_PRINT_AND_PAGE_PROPERTIES_OVER;H_123_UPDATING_THE
_PREVIEW_WINDOW_STEPS',0)} See related topics

Details: Previewing your work before printing

You can use the Preview commands or the related SmartIcons to display your work in the Preview window and to print your work.

Task	Command	Icon
Change print and page settings	Preview - Preview & Page Setup Properties	
Display the previous page	Preview - Previous Page	
Display the next page	Preview - Next Page	
View one page	Preview - One Page View	
View two pages	Preview - Two Page View	
View four pages	Preview - Four Page View	
View nine pages	Preview - Nine Page View	
Show or hide margin lines	Preview - Show Margins or Preview - Hide Margins	
Open the Print dialog box	File - Print	
Open the Preview window	File - Preview & Page Setup	

{button ,AL('H_PRINT_PREVIEW_YOUR_WORK_STEPS',1)} Go to procedure

Zooming in and out of the Preview window

You can click on data in the [Preview window](#) to zoom in or out.

1. From the File menu, choose Preview & Page Setup.



1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the [InfoBox](#). In the Preview window, the mouse pointer changes to a zoom in or zoom out icon, depending on the current state of the Preview display.

2. Click on data in the Preview window to zoom in or out.

If you zoom in, 1-2-3 may not display all of your work in the Preview window. Click the horizontal and vertical scroll bars to see more of your work.

3. (Optional) Close the Preview window.

Note Zooming in or out in the Preview window does not affect the size of the printed text.

{button ,AL(`H_PRINT_PREVIEW_ZOOMING_IN_AND_OUT_DETAILS',1)} [See details](#)

{button ,AL(`;H_PRINT_PREVIEW_KEY_MOUSE_SHORTCUTS_OVER;H_PRINT_PREVIEW_WINDOW_OVER',0)}
[See related topics](#)

Details: Zooming in and out of the Preview window

If you are previewing a single page or multiple pages, clicking in the Preview window zooms in and out.

- First click -- Zooms into the page
- Second click -- Zooms further into the page
- Third click -- Returns to either a one-page preview or multiple-page preview, depending on where you started

{button ,AL('H_PRINT_PREVIEW_ZOOMING_IN_AND_OUT_STEPS',1)} [Go to procedure](#)

Selecting a printer

If you have installed more than one printer, you can select the printer you want to use.

Note If you need to install a printer, see the documentation for your operating system.

Selecting a printer with the File - Print command

1. From the File menu, choose Print.



2. Under Printer, select a printer from the "Print to" list.
3. Do one of the following:
 - Click Print to print your work to the printer you selected.
 - Click Done to keep the printer you specified as the default printer and to close the Print dialog box without printing.

Selecting a printer from the InfoBox

You can also select a printer from the Preview & Page Setup [InfoBox](#).

1. In the Preview & Page Setup InfoBox, click the Printer tab.



2. Click Printer.
3. In the Printer dialog box, select a printer from the "Print to" list.
4. Click OK.

{button ,AL('H_PRINT_CHANGING_PRINTER_PROPERTIES_STEPS;H_PRINT_OVER',0)} [See related topics](#)

Changing printer properties

The properties you can change depend on the type of printer you have installed.

Changing printer properties with the File - Print command

1. From the File menu, choose Print.



2. Under Printer, click Properties.

Note The Properties dialog box is for the current printer only and is part of the operating system.

3. Select the properties you want to use for the current printer.
4. Click OK to close the Properties dialog box.
5. Do one of the following:
 - Click Print to print your work.
 - Click Done to accept the properties you selected and close the Print dialog box without printing.

Changing printer properties from the InfoBox

You can also change the printer properties from the Preview & Page Setup InfoBox.

1. In the Preview & Page Setup InfoBox, click the Printer tab.



2. Click Printer.
3. In the Printer dialog box, click Properties.

Note The Properties dialog box is for the current printer only and is part of the operating system.
4. Select the properties you want to use for the current printer.
5. Click OK to close the Properties dialog box.
6. Click OK to close the Printer dialog box.

{button ,AL('H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_OVER',0)} [See related topics](#)

Adding a page break

When you preview your work before printing, 1-2-3 displays page breaks as bold gray lines in the sheet.

If the pages don't automatically break where you want, you can add page breaks to keep related data together or to print certain data on a separate page.

1. From the File menu, choose Preview & Page Setup to see where 1-2-3 displays page breaks.
1-2-3 displays the current workbook on the left and the Preview window on the right. 1-2-3 also opens the InfoBox.
2. Use the Preview window to see each page.
Tip You can use the status bar to display one page at a time.
3. In the sheet, select a cell below the row or to the right of the column where you want to add a page break.
4. From the Edit menu, choose Page Break.
5. Select one or both options:
 - Above current row -- Inserts a horizontal page break above the current row.
 - Left of current column -- Inserts a vertical page break to the left of the current column.
6. Click OK.
7. (Optional) Close the Preview window.

Note You can also use the Basics tab in the Range InfoBox to insert page breaks. Select "Break page at column" to insert a vertical page break in the column to the left of the selected cell. Select "Break page at row" to insert a horizontal page break in the row above the selected cell.



{button ,AL('H_PRINT_ADDING_A_PAGE_BREAK_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_CHANGE_MARGINS_STEPS;H_PRINT_CHANGING_PAGE_ORIENTATION_STEPS;H_PRINT_FITTING_YOUR_WORK_ON_THE_PAGE_STEPS;H_PRINT_REMOVING_A_PAGE_BREAK_STEPS;H_PRINT_CHANGING_SELECTION_STEPS;H_PRINT_PREVIEW_KEY_MOUSE_SHORTCUTS_OVER',0)} [See related topics](#)

Details: Adding a page break

1-2-3 automatically paginates what you are printing based on how many complete columns and rows will fit on the current page. Page breaks never occur partway through columns or rows.

If you print a range collection or a workbook that contains more than one sheet, you can use File - Print or the Include panel in the InfoBox for Preview & Page Setup to control whether 1-2-3 prints each page in the workbook or range in the collection on a new page.

Related SmartIcons



Inserts a horizontal page break



Inserts a vertical page break

{button ,AL('H_PRINT_ADDING_A_PAGE_BREAK_STEPS',1)} [Go to procedure](#)

Removing a page break

1-2-3 displays page breaks as bold gray lines in the sheet. You can remove page breaks that you added to the sheet for printing your work.

Note You cannot remove the automatic page breaks 1-2-3 displays when you preview your work before printing, but you can add page breaks to control how 1-2-3 prints your work.

1. Select a cell directly below or to the right of the gray line.
2. From the Edit menu, choose Page Break.
3. Deselect one or both options:
 - Above current row -- Removes the horizontal page break above the current row.
 - Left of current column -- Removes the vertical page break to the left of the current column.
4. Click OK.

Tip You can also use the Basics tab in the InfoBox to remove page breaks. Deselect "Break page at column" to remove the vertical page break to the left of the selected cell. Deselect "Break page at row" to remove the horizontal page break above the selected cell.



{button ,AL('H_PRINT_ADDING_A_PAGE_BREAK_STEPS;',0)} [See related topics](#)

Overview: Release 5 command equivalents

The following topics list commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

[File commands](#)

[Edit commands](#)

[View commands](#)

[Style commands](#)

[Tools commands](#)

[Range commands](#)

[Window commands](#)

[Help commands](#)

[Chart commands](#)

[Query commands](#)

[Transcript commands](#)

Note Some Release 5 commands are obsolete and have no equivalent in the current release of 1-2-3.

{button ,AL('H_123_CLASSIC_OVER;H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS',0)} [See related topics](#)



Chart commands

The table below lists Chart commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 5	Current release
Chart - Axis - X-Axis	Chart - Axes & Grids - X-Axis & Grids
Chart - Axis - Y-Axis	Chart - Axes & Grids - Y-Axis & Grids
Chart - Axis - 2nd Y-Axis	Chart - Axes & Grids - 2nd Y-Axis & Grids
Chart - Data Labels	Chart - Ranges; select Data labels in the "Parts" list
Chart - Grids	Chart - Axes & Grids - X-Axis & Grids Chart - Axes & Grids - Y-Axis & Grids Chart - Axes & Grids - 2nd Y-Axis & Grids Chart - Axes & Grids - Z-Axis & Grids
Chart - Headings	Chart - Title Chart - Note
Chart - Legend	Chart - Legend
Chart - Name	Chart - Chart Properties (Basics tab)
Chart - Numeric Color	Chart - Series (<u>Lines & Colors</u> tab)
Chart - Ranges	Chart - Ranges
Chart - Set Preferred	Chart - Chart Style - Set Default Chart
Chart - Type	Chart - Chart Type
Chart - Use Preferred	Chart - Chart Style - Apply

Edit commands

The table below lists Edit commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

Note In the table, *Object* refers to the current selected object, such as a chart, a graphic object, or an embedded document.

1-2-3 Release 5	Current release
Edit - Arrange - Bring to Front	<i>Object</i> - Bring to Front
Edit - Arrange - Fasten to Cells	<i>Object</i> - <i>Object</i> Properties (Basics tab)
Edit - Arrange - Flip Left-Right	Drawing - Flip Left-Right
Edit - Arrange - Flip Top-Bottom	Drawing - Flip Top-Bottom
Edit - Arrange - Group	<i>Object</i> - Group
Edit - Arrange - Lock	<i>Object</i> - <i>Object</i> Properties (Basics tab)
Edit - Arrange - Rotate	<i>Object</i> - <i>Object</i> Properties (Basics tab)
Edit - Arrange - Send to Back	<i>Object</i> - Send to Back
Edit - Arrange - Ungroup	<i>Object</i> - Ungroup
Edit - Arrange - Unlock	<i>Object</i> - <i>Object</i> Properties (Basics tab)
Edit - Clear	Edit - Clear
Edit - Copy	Edit - Copy
Edit - Copy Back	Edit - Copy Back (on the right mouse menu when a 3D range is selected)
Edit - Copy Down	Edit - Copy Down
Edit - Copy Forward	{EDIT-COPYFILL} macro
Edit - Copy Left	{EDIT-COPYFILL} macro
Edit - Copy Right	Edit - Copy Right
Edit - Copy Up	{EDIT-COPYFILL} macro
Edit - Cut	Edit - Cut
Edit - Delete	Range - Delete Sheet - Delete Sheet
Edit - Find & Replace	Edit - Find & Replace
Edit - Go To	Edit - Go To
Edit - Insert	Create - SheetRange - Insert
Edit - Insert Object	Create - Object
Edit - Links	Edit - Manage Links
Edit - Paste	Edit - Paste
Edit - Paste Link	Edit - Paste Link
Edit - Paste Special	Edit - Paste Special
Edit - Undo	Edit - Undo

File commands

The table below lists File commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3:

1-2-3 Release 5	Current release
File - Close	File - Close
File - Close & Return	File - Close & Return to <application>
File - Doc Info	File - Workbook Properties (General tab)
File - Exit	File - Exit 1-2-3
File - Exit & Return	File - Exit & Return to <application>
File - New	File - New Workbook
File - Open	File - Open
File - Page Setup	File - Preview & Page Setup
File - Print	File - Print
File - Print Preview	File - Preview & Page Setup
File - Printer Setup	File - Preview & Page Setup
File - Protect	File - Workbook Properties (Security tab)
File - Save	File - Save
File - Save As	File - Save As
File - Save Copy As	File - Save Copy As
File - Send Mail	File - TeamMail
File - Update	File - Update

Help commands

The table below lists Help commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 5	Current release
Help - About 1-2-3	Help - About 1-2-3
Help - Contents	Help - Help Topics
Help - For Upgraders	Help - Help Topics (Contents tab). See What's New?
Help - Keyboard	Help - Help Topics (Index tab). Type "keys."
Help - How Do I	Help - Help Topics (Contents tab). See How Do I?
Help - Search	Help - Help Topics (Index tab)
Help - Tutorial	No equivalent command
Help - Using Help	See <u>Getting Help with 1-2-3.</u>









Query commands

The table below lists Query commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

In this release, there are two ways to work with database tables. You can use the Create - Database commands to work with database tables in 1-2-3 and Approach, or you can use the Data Query Add-in (DQA).

Note The Data Query Add-in (DQA) is included in this release of 1-2-3 to give you data query functionality that is similar to that in 1-2-3 Release 5.

For more information, see [Overview: Working with databases](#).

1-2-3 Release 5	Current release
Aggregate	See Creating a database report .
Choose Fields	See Adding a field in a query table and Deleting a field in a query table .
Join	See Joining database tables .
Name	Query Table - Query Table Properties (Basics tab)
Refresh Now	Query Table - Refresh
Set Criteria	See Finding specific records in a query table .
Set Options	See Creating a query table .
Set Database Table	Supported by DQA.
Show Field As	Double-click the query table to activate it, double-click the field header, and enter the new name.
Show SQL	Supported by DQA.
Sort	See Sorting records in a query table .
Update Database Table	1-2-3 automatically updates the database table when you edit query table records.

Range commands

The table below lists Range commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 5	Current release
Range - Analyze - Backsolver	Range - Analyze - Backsolver
Range - Analyze - Distribution	Range - Analyze - Distribution
Range - Analyze - Invert Matrix	Range - Analyze - Invert Matrix
Range - Analyze - Multiply Matrix	Range - Analyze - Multiply Matrix
Range - Analyze - Regression	Range - Analyze - Regression
Range - Analyze - Solver	No equivalent command. See Compatibility
Range - Analyze - What-if Table	Range - Analyze - What-if Table
Range - Fill	Range - Fill
Range - Fill by Example	Range - Fill
Range - Name	Range - Name
Range - Parse	Range - Parse
Range - Sort	Range - Sort
Range - Transpose	Range - Transpose
Range - Version	Range - Version - New Version
	Range - Version - Display Version
	Range - Version - Delete Version
	Range - Version - Version Groups
	Range - Version - Report



Style commands

The table below lists Style commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

In the current release, most Style commands are now performed in the InfoBox. For example, to align a range of text in Release 5, you used Style - Alignment. In the current release, you choose Range - Range Properties to open the Range InfoBox, click the Alignment tab, and then select the alignment option.

Note In the table, *Object* refers to the current selection, such as a range, chart, map, or other graphic object.

1-2-3 Release 5	Current release
Style - Alignment	<i>Object</i> - <i>Object</i> Properties (<u>Alignment tab</u>) and Sheet - Sheet Properties (Alignment tab)
Style - Column Width	Range - Range Properties (Basics tab)
Style - Fast Format	Range - Fast Format
Style - Font & Attributes	<i>Object</i> - <i>Object</i> Properties (<u>Text format tab</u>)
Object - Object Properties (Text Format tab)	Range - Range Properties (<u>Named Styles tab</u>)
Style - Hide	<i>Object</i> - <i>Object</i> Properties (Basics tab)
Style - Lines & Color	<i>Object</i> - <i>Object</i> Properties (<u>Lines & Colors tab</u>) and Sheet - Sheet Properties (Lines & Colors tab)
Style - Named Style	Range - Range Properties (Named Styles tab)
Style - Number Format	Range - Range Properties (<u>Number Format tab</u>) and Sheet - Sheet Properties (Number Format tab)
Style - Page Break	Edit - Page Break
Style - Protection	Range - Range Properties (<u>Security tab</u>) and Sheet - Sheet Properties (Basics tab)
Style - Row Height	Range - Range Properties (Basics tab)
Style - Worksheet Defaults	Sheet - Sheet Properties

{button ,AL('H_USING_THE_INFOBOX_STEPS;H_THE_INFOBOX_OVER',0)} [See related topics](#)



Tools commands

The table below lists Tools commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

In this release, there are two ways to work with database tables. You can use the Create - Database commands to work with database tables in 1-2-3 and Approach, or you can use the Data Query Add-in (DQA).

Note The Data Query Add-in (DQA) is included in this release of 1-2-3 to give you data query functionality that is similar to that in 1-2-3 Release 5.

For more information, see [Overview: Working with databases](#).

1-2-3 Release 5	Current release
Tools - Add-in	File - Add-Ins
Tools - Audit	No longer supported
Tools - Chart	Create - Chart
Tools - Database - Append Records	See Adding records using a query table .
Tools - Database - Connect to External	See Creating a query table .
Tools - Database - Create Table	Supported by DQA.
Tools - Database - Crosstab	Create - Database - Dynamic Crosstab
Tools - Database - Delete Records	See Deleting records using a query table .
Tools - Database - Disconnect	When the query table is active, choose Open to Full Window, choose Open, select the desired connection and click Disconnect. Refer to Approach Help for more information.
Tools - Database - Dynamic Crosstab	Create - Database - Dynamic Crosstab
Tools - Database - Find Records	See Finding specific records in a query table .
Tools - Database - Form	Create - Database - Form
Tools - Database - Mailing Labels	Create - Database - Mailing Labels
Tools - Database - New Query	Create - Database - Query Table
Tools - Database - Report	Create - Database - Report
Tools - Database - Send Command	Supported by DQA.
Tools - Draw - Arc	Create - Drawing - Arc
Tools - Draw - Arrow	Create - Drawing - Arrow
Tools - Draw - Button	Create - Button
Tools - Draw - Ellipse	Create - Drawing - Ellipse
Tools - Draw - Freehand	Create - Drawing - Freehand
Tools - Draw - Line	Create - Drawing - Line
Tools - Draw - Polygon	Create - Drawing - Polygon
Tools - Draw - Polyline	Create - Drawing - Polyline
Tools - Draw - Rectangle	Create - Drawing - Rectangle
Tools - Draw - Rounded Rectangle	Create - Drawing - Rounded Rectangle
Tools - Draw - Text	Create - Text

Tools - Macro - Assign to Button	Edit - Scripts & Macros - Show Script Editor
Tools - Macro - Record	Edit - Scripts & Macros - Record Script
Tools - Macro - Run	Edit - Scripts & Macros - Run
Tools - Macro - Show Transcript	No longer supported
Tools - Macro - Single Step	Edit - Scripts & Macros - Run
Tools - Macro - Trace	Edit - Scripts & Macros - Run
Tools - Map - Colors & Legend	Map - Color Bins
Tools - Map - New Map	Create - Map
Tools - Map - Patterns & Legend	Map - Pattern Bins
Tools - Map - Ranges & Title	Map - Ranges
	Map - Title
Tools - Map - Redraw	Map - Redraw
Tools - Map - Set Redraw Preference	Map - Map Properties (Basics tab)
Tools - SmartIcons	File - User Setup - SmartIcons Setup
Tools - Spell Check	Edit - Check Spelling
Tools - User Setup	File - User Setup - 1-2-3 Preferences

Transcript commands

The current release of 1-2-3 does not contain a Transcript window for recording commands and actions. Instead, commands and actions are recorded as scripts in the Integrated Development Environment (IDE).

For more information, see [Overview: Using LotusScript](#).

1-2-3 Release 5	Current release
Make Button	Create - Button
Minimize on Run	No longer supported
Playback	No longer supported
Record Absolute	No longer supported
Record Relative	No longer supported

View commands

The table below lists View commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 5	Current release
View - Clear Split	View - Clear Split
View - Clear Titles	View - Titles
View - Custom - nn%	View - Zoom to Custom Level (xx%)
View - Freeze Titles	View - Titles
View - Set View Preferences	View - Set View Preferences
View - Split	View - Split
View - Zoom In	View - Zoom to
View - Zoom Out	View - Zoom to

Window commands

The table below lists Window commands in 1-2-3 Release 5 for Windows and their closest equivalents in the current release of 1-2-3.

1-2-3 Release 5	Current release
Window - Cascade	Window - Cascade
Window - More Windows	Window - More Windows
Window - Tile	Window - Tile Left-Right Window - Tile Top-Bottom
Window - <List of open windows>	Window - <List of open windows>

Chart macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in LotusChart. For more information on individual LotusChart properties and methods, search on the property or method name in the LotusScript Index.

1-2-3 Release 5	LotusChart
{CHART-ASSIGN-RANGE}	DataLink property
{CHART-AXIS-INTERVALS}	MajorInterval property
	MajorIntervalsManual property
	MinorInterval property
	MinorIntervalsManual property
	SecondYAxis property
	XAxis property
	YAxis property
{CHART-AXIS-LIMITS}	Maximum property
	MaximumIsManual property
	Minimum property
	MinimumIsManual property
	SecondYAxis property
	XAxis property
	YAxis property
{CHART-AXIS-SCALE-TYPE}	Scale property
	ScaleType property
	SecondYAxis property
	XAxis property
	YAxis property
{CHART-AXIS-TICKS}	MajorTickmarks property
	MajorTickmarkPlacement property
	MinorTickmarks property
	MinorTickmarkPlacement property
	SecondYAxis property
	TickLabelSkip property
	Visible property
	XAxis property
	YAxis property
{CHART-AXIS-TITLE}	SecondYAxis property
	Text property
	Title property
	XAxis property
	YAxis property
{CHART-AXIS-UNITS}	Exponent property
	SecondYAxis property
	Scale property
	Subtitle property

	SubtitlesManual property
	SubtitlePlacement property
	Text property
	XAxis property
	YAxis property
{CHART-COLOR-RANGE}	No longer supported
{CHART-DATA-LABELS}	Series property
	SeriesData property
	TextLabels property
{CHART-FOOTNOTE}	DataLink property
	Lines property
	Note property
	Placement property
	Source property
	Text property
	Visible property
{CHART-GRID}	MajorGridlines property
	MinorGridlines property
	SecondYAxis property
	Visible property
	XAxis property
	YAxis property
{CHART-LEGEND}	DataLink property
	Entries property
	Legend property
	Placement property
	Source property
	Text property
	Visible property
{CHART-NEW}	NewChart method
{CHART-PATTERN-RANGE}	No longer supported
{CHART-PIE-LABELS}	PercentLabels property
	PercentLabelPlacement property
	Placement property
	SeriesData property
	TextLabels property
	TextLabelsPlacement property
	ValueLabels property
	ValueLabelPlacement property
{CHART-PIE-SLICE-EXPLOSION}	ExplodePercent property
	Pies property
	PieSlices property
	SliceExplosion property
	SliceDirection property
{CHART-RANGE}	DataLink property

	Series property
	Source property
	Type property
	Use2YAxis property
	XAxis property
{CHART-RANGE-DELETE}	Series property
	Visible property
	XAxis property
{CHART-RENAME}	Name property
{CHART-SET-PREFERRED}	No longer supported
{CHART-TITLE}	DataLink property
	Lines property
	Placement property
	Source property
	Text property
	Title property
	Visible property
{CHART-TYPE}	Type property
{CHART-USE-PREFERRED}	No longer supported

Database macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{COMMIT}	Commit method
{CROSSTAB}	No longer supported
{DATABASE-APPEND}	AppendRecords method
{DATABASE-CONNECT}	Connect method
{DATABASE-CREATE-TABLE}	CreateTable method
{DATABASE-DELETE}	DeleteRecords method
{DATABASE-DISCONNECT}	Disconnect method
{DATABASE-FIND}	FindRecords method
{DATABASE-SEND-COMMAND}	SendCommand method
{QUERY-ADD-FIELD}	AddSelectField method
	CreateComputedField method
{QUERY-AGGREGATE}	FieldAggregateType method
	ResetFieldAggregates method
{QUERY-CHOOSE-FIELDS}	AllFields property
	SelectFields property
{QUERY-COPY-SQL}	CopySQLToClipboard method
	Paste method
	SQL property
{QUERY-CRITERIA}	Criteria property
{QUERY-DATABASE-TABLE}	BaseSourceTable property
{QUERY-JOIN}	Join method
{QUERY-NAME}	Name property
{QUERY-NEW}	NewQuery method
	OutputLocation property
	Refresh method
{QUERY-OPTIONS}	AllowsUpdates property
	AutoRefresh property
	ExtractingUniqueRecords property
	RecordsLimited property
	RecordsLimitMax property
{QUERY-REFRESH}	Refresh method
{QUERY-REMOVE-FIELD}	DeleteComputedField method
	RemoveSelectField method
{QUERY-SHOW FIELD}	FieldAlias method
{QUERY-SORT}	SortData method
{QUERY-SORT-KEY-DEFINE}	QuerySortDefineKey method
{QUERY-SORT-RESET}	SortReset method
{QUERY-UPGRADE}	No longer supported

{QUERY-UPDATE}	Update method
{ROLLBACK}	Rollback method
{SEND-SQL}	SendSQL method

Data manipulation macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{APPENDBELOW}	No LotusScript equivalent
{APPENDRIGHT}	No LotusScript equivalent
{BLANK}	Clear method
{CONTENTS}	CellDisplay property
{LET}	Contents property
{PUT}	Contents property
{RECALC}	RecalcRange method
{RECALCCOL}	RecalcRange method

DDE and OLE macro commands

The 1-2-3 Release 5 for Windows DDE macro commands do not have LotusScript equivalents:

{DDE-ADVISE}
{DDE-CLOSE}
{DDE-EXECUTE}
{DDE-OPEN}
{DDE-POKE}
{DDE-REQUEST}
{DDE-TABLE}
{DDE-UNADVISE}
{DDE-USE}

The tables below list Link and OLE macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

Link macro commands

<u>1-2-3 Release 5</u>	<u>Current release of 1-2-3</u>
{LINK-ASSIGN}	Target property
{LINK-CREATE}	NewDataLink method
{LINK-DEACTIVATE}	AutoUpdate property
{LINK-DELETE}	BreakLink method
{LINK-REMOVE}	Target property
{LINK-TABLE}	No longer supported
{LINK-UPDATE}	Update method

OLE macro commands

<u>1-2-3 Release 5</u>	<u>Current release of 1-2-3</u>
{EDIT-OBJECT}	Verb method
{INSERT-OBJECT}	NewObject method
{UPDATE-OBJECT}	Save method

Edit macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{DELETE-COLUMNS}	DeleteColumns method
{DELETE-ROWS}	DeleteRows method
{DELETE-SHEETS}	DeleteSheet method
{EDIT-CLEAR}	Clear method
{EDIT-COPY}	CopyToClipboard method
{EDIT-COPY-FILL}	CopyFill method
{EDIT-CUT}	Cut method
{EDIT-FIND}	Find method
	SearchString property
{EDIT-FIND?}	No LotusScript equivalent
{EDIT-PASTE}	Paste method
{EDIT-PASTE-LINK}	NewDataLink method
	Paste method
{EDIT-PASTE-SPECIAL}	NewDataLink method
	Paste method
{EDIT-QUICK-COPY}	QuickCopy method
{EDIT-QUICK-MOVE}	QuickMove method
{EDIT-REPLACE}	Replace method
	SearchString property
	ReplaceString property
{EDIT-REPLACE-ALL}	ReplaceAll method
	SearchString property
	ReplaceString property
{FILE-UPDATE-LINKS}	FileAdminLinksRefresh method
{INSERT-COLUMNS}	InsertColumns method
{INSERT-ROWS}	InsertRows method
{INSERT-SHEETS}	NewSheet method

File info component equivalents

The table below lists info components in 1-2-3 Release 5 for 'Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
DOCUMENT-COMMENTS	Description property
DOCUMENT-KEYWORDS	Keywords property
DOCUMENT-REVISIONS	Revisions property
DOCUMENT-SUBJECT	Subject property
DOCUMENT-TITLE	Title property
FILE-RESERVE-AUTOMATICALLY	AlwaysReserve property

File macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{FILE-CLOSE}	Close method
{FILE-COMBINE}	RangeCombine method
{FILE-EXIT}	Quit method
{FILE-EXTRACT}	RangeExtract method
{FILE-GET-RESERVATION}	ReservationGet method
{FILE-IMPORT}	RangeCombineText method
{FILE-NEW}	NewDocument method
{FILE-OPEN}	OpenDocument method
{FILE-OPEN?}	No LotusScript equivalent
{FILE-RELEASE-RESERVATION}	ReservationReleased method
{FILE-RETRIEVE}	No LotusScript equivalent
{FILE-SAVE}	Save method
	SaveAs method
{FILE-SAVE-ALL}	No LotusScript equivalent
{FILE-SAVE-AS?}	No LotusScript equivalent
{FILE-SEAL}	Lock method
{FILE-SEAL-NETWORK-RESERVATION}	No LotusScript equivalent
{FILE-UNSEAL}	Lock method
{PRINT}	Copies property
	Print method
	PrintPagesFrom property
	PrintPagesStart property
	PrintPagesTo property
	PrintWhat property
{PRINT?}	No LotusScript equivalent
{PRINT-NAME-ADD}	NewNamedPrintSettings method
{PRINT-NAME-USE}	CurrentPrintSettings property
	RetrievePrintSettings method
{PRINT-RESET}	CurrentPrintSettings property
{SEND-MAIL}	SendMail method
{SEND-RANGE}	Send method
{SEND-RANGE-LOGIN}	UserLogin method

Flow-of-control macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents. For more information on individual LotusScript statements and functions, search on the function or statement name in the LotusScript Index.

LotusScript offers the standard capabilities of a structured programming language and the 1-2-3 classes are an extension of that language that enables object-oriented application development within 1-2-3 and across other Lotus products as well.

<u>1-2-3 Release 5</u>	<u>LotusScript</u>
{-- comment}	' (single quote) comment
{BRANCH}	GoSub statement
{DEFINE}	Sub statement parameter list
{DISPATCH}	GoTo statement
{FOR}	For statement
{FORBREAK}	Exit statement
{IF}	If statement
{LAUNCH}	Shell statement
{LOTUS-LAUNCH}	No longer supported
{ONERROR}	On Error statement
{QUIT}	End statement
{RESTART}	No LotusScript equivalent
{RETURN}	Exit Function statement
	Exit Sub statement
{SET}	See 1-2-3 Release 5 info component equivalents
{subroutine}	Call statement
{SYSTEM}	Shell statement

Keystroke equivalents

The table below lists keys and corresponding macros in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

Release 5 key	Release 5 macro	Current release
~ (tilde)	{~}	No LotusScript equivalent
{ (open brace)	{{}	No LotusScript equivalent
} (close brace)	{}}	No LotusScript equivalent
/ (slash) or < (less than)	/, <, or {MENU}	No LotusScript equivalent
ALT+F6 (ZOOM)	{ZOOM}	ZoomIn method ZoomOut method
BACKSPACE	{BACKSPACE} or {BS}	No LotusScript equivalent
CTRL+END	{FILE}	No LotusScript equivalent
CTRL+END CTRL+PG DN	{PREVFILE}, {PF}, or {FILE}{PS}	Goto method
CTRL+END CTRL+PG UP	{NEXTFILE}, {NF}, or {FILE}{NS}	Goto method
CTRL+END END	{LASTFILE}, {LF}, or {FILE}{END}	Goto method
CTRL+END HOME	{FIRSTFILE}, {FF}, or {FILE}{HOME}	GoTo method
CTRL+HOME	{FIRSTCELL} or {FC}	MoveCellPointer method
CTRL+LEFT	{BACKTAB} or {BIGLEFT}	MoveCellPointer method
CTRL+PG UP	{NEXTSHEET} or {NS}	PageForward method
CTRL+PG DN	{PREVSHEET} or {PS}	PageBack method
CTRL+RIGHT	{BIGRIGHT}	MoveCellPointer method
DEL	{DELETE} or {DEL}	Clear method
DOWN	{DOWN} or {D}	MoveCellPointer method
END	{END}	No LotusScript equivalent
END CTRL+HOME	{LASTCELL} or {LC}	MoveCellPointer method
ESC	{ESCAPE} or {ESC}	No LotusScript equivalent
ESC in 1-2-3 Classic edit line	{CLEARENTRY} or {CE}	No LotusScript equivalent
F1 (HELP)	{HELP}	HelpContents method
F2 (EDIT)	{EDIT}	No LotusScript equivalent

F3 (NAME)	{NAME}	No LotusScript equivalent
F4 in Ready mode	{ANCHOR}	No LotusScript equivalent
F4 (ABS)	{ABS}	No LotusScript equivalent
F5 (GOTO)	{GOTO}	GoTo method
F6 (PANE)	{WINDOW}	NextSplit method
F7 (QUERY)	{QUERY}	No LotusScript equivalent
F8 (TABLE)	{TABLE}	No LotusScript equivalent
F9 (CALC)	{CALC}	Calc method
HOME	{HOME}	MoveCellPointer method
INS	{INSERT} or {INS}	No LotusScript equivalent
LEFT	{LEFT} or {L}	MoveCellPointer method
PG DN	{PGDN}	MoveCellPointer method
PG UP	{PGUP}	MoveCellPointer method
RIGHT	{RIGHT} or {R}	MoveCellPointer method
SHIFT+CTRL+LEFT	{SELECT-BIGLEFT}	No LotusScript equivalent
SHIFT+CTRL+RIGHT	{SELECT-BIGRIGHT}	No LotusScript equivalent
SHIFT+DOWN	{SELECT-DOWN}	Range method
SHIFT+CTRL+HOME	{SELECT-FIRSTCELL}	No LotusScript equivalent
SHIFT+HOME	{SELECT-HOME}	No LotusScript equivalent
END SHIFT+CTRL+HOME	{SELECT-LASTCELL}	No LotusScript equivalent
SHIFT+LEFT	{SELECT-LEFT}	Range method
SHIFT+CTRL+PG UP	{SELECT-NEXTSHEET}	Range method
SHIFT+PG DN	{SELECT-PGDN}	No LotusScript equivalent
SHIFT+PG UP	{SELECT-PGUP}	No LotusScript equivalent
SHIFT+CTRL+PG DN	{SELECT-PREVSHEET}	Range method
SHIFT+RIGHT	{SELECT-RIGHT}	Range method
SHIFT+UP	{SELECT-UP}	Range method
TAB	{TAB}	MoveCellPointer method
UP	{UP} or {U}	MoveCellPointer method

Macro debug info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
MACRO-STEP	MacroStep property
MACRO-TRACE	MacroTrace property

Mapping info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
MAP-DRAW	AutoRedraw property
MAP-REDRAW	RedrawMap method

Navigation macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{CELL-ENTER}	Contents property
{EDIT-GOTO}	GoTo method
{SCROLL-COLUMNS}	MoveOrigin method
{SCROLL-ROWS}	MoveOrigin method
{SCROLL-TO-CELL}	SetOrigin method
{SCROLL-TO-COLUMN}	MoveOrigin method
{SCROLL-TO-OBJECT}	GoTo method
{SCROLL-TO-ROW}	MoveOrigin method
{SELECT}	Select method
{SELECT-ALL}	AddToSelection method
	Select method
	SelectAll method
	SelectAllSheets method
{SELECT-APPEND}	AddToSelection method
{SELECT-RANGE-RELATIVE}	Select method
{SELECT-REMOVE}	RemoveFromSelection method
{SELECT-REPLACE}	AddToSelection method
	RemoveFromSelection method

Printer Setup info component equivalents

The table below lists info components in Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
PRINTER-SETUP-BINS	PaperBinName property
PRINTER-SETUP-COPIES	Copies property
PRINTER-SETUP-NAME	PrinterName property
PRINTER-SETUP-PAPERLENGTH	PaperHeight property
PRINTER-SETUP-PAPERWIDTH	PaperWidth property
PRINTER-SETUP-PAPERSIZE	PaperSizeName property
PRINTER-SETUP-QUALITY	PrinterQuality property

Print info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
PRINT-BEGINNING-PAGE-NUMBER	PrintPagesStart property
PRINT-CENTERED	CenterLeftToRight property CenterTopToBottom property
PRINT-DRAWN-OBJECTS	ChartsPicturesAndDrawPrint property
PRINT-FIT-PAGE	FitToPage property
PRINT-FOOTER-CENTER-TEXT	FooterCenter property
PRINT-FOOTER-LEFT-TEXT	FooterLeft property
PRINT-FOOTER-RIGHT-TEXT	FooterRight property
PRINT-GRID-LINES	GridLinesPrint property
PRINT-HEADER-CENTER-TEXT	HeaderCenter property
PRINT-HEADER-LEFT-TEXT	HeaderLeft property
PRINT-HEADER-RIGHT-TEXT	HeaderRight property
PRINT-MARGIN-BOTTOM	BottomMargin property
PRINT-MARGIN-LEFT	LeftMargin property
PRINT-MARGIN-RIGHT	RightMargin property
PRINT-MARGIN-TOP	TopMargin property
PRINT-ORIENTATION	Orientation property
PRINT-RANGE	PrintRange property
PRINT-SIZE	FitDrawnObjectToPage property FitToPage property
PRINT-SIZE-MANUAL	FitToPage property ScalePercent property
PRINT-TITLES-CLEAR	No LotusScript equivalent
PRINT-TITLES-COLUMN-RANGE	ColumnTitleRange property
PRINT-TITLES-ROW-RANGE	RowTitleRange property
PRINT-WORKSHEET-FRAME	SheetFramePrint property

Range macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{DATA-TABLE-1}	WhatIfTable1 method
{DATA-TABLE-2}	WhatIfTable2 method
{DATA-TABLE-3}	WhatIfTable3 method
{DATA-TABLE-RESET}	WhatIfTableReset method
{DISTRIBUTION}	Distribution method
{FILL}	RangeFill method
{FILL-BY-EXAMPLE}	RangeFill method
{MATRIX-INVERT}	MatrixInvert method
{MATRIX-MULTIPLY}	MatrixMultiply method
{PARSE}	DataParse method
{RANGE-NAME-CREATE}	CreateRangeName method
{RANGE-NAME-DELETE}	DeleteRangeName method
{RANGE-NAME-DELETE-ALL}	ClearRangeNames method
{RANGE-NAME-LABEL-CREATE}	CreateRangeNameFromLabel method
{RANGE-NAME-TABLE}	CreateRangeNameTable method
{RANGE-TRANSPOSE}	Transpose method
{RANGE-VALUE}	RangeValue method
{REGRESSION}	Regression method
{SHEET-NAME}	SheetName property
{SHEET-NAME-DELETE}	SheetName property
{SORT}	Sort method
{SORT-KEY-DEFINE}	RangeSortDefineKey method
{SORT-RESET}	SortResetKeys method

Overview: Release 5 info component equivalents

The following topics list info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

[File info component equivalents](#)

[Macro debug info component equivalents](#)

[Mapping info component equivalents](#)

[Print info component equivalents](#)

[Printer Setup info component equivalents](#)

[Sort info component equivalents](#)

[User Setup info component equivalents](#)

[Window info component equivalents](#)

[Worksheet Defaults info component equivalents](#)

Overview: Release 5 macro command equivalents

The following topics list macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

[Chart macro commands](#)

[Data manipulation macro commands](#)

[Database macro commands](#)

[DDE and OLE macro commands](#)

[Edit macro commands](#)

[File macro commands](#)

[Flow-of-control macro commands](#)

[Keystroke equivalents](#)

[Navigation macro commands](#)

[Range macro commands](#)

[SmartIcons macro commands](#)

[Solver macro commands](#)

[Style macro commands](#)

[Text file macro commands](#)

[Tools macro commands](#)

[User environment macro commands](#)

[Version Manager macro commands](#)

[Window and screen display macro commands](#)

SmartIcons macro commands

The table below lists commonly-used SmartIcon macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{SMARTSUM}	SmartSum method
{SORT-ASCENDING}	SmartSort method
{SORT-DESCENDING}	SmartSort method
{TOGGLE-OUTLINE}	No LotusScript equivalent
{TOGGLE-SHADOW}	No LotusScript equivalent

Solver macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{BACKSOLVE}	Backsolve method
{SOLVER-ANSWER}	No LotusScript equivalent
{SOLVER-ANSWER-SAVE}	No LotusScript equivalent
{SOLVER-DEFINE}	No LotusScript equivalent
{SOLVER-DEFINE?}	No LotusScript equivalent
{SOLVER-REPORT}	No LotusScript equivalent

Note Macros can be used if the Solver add-in is loaded.

Sort info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
DATA-SORT-DIRECTION[n]	RangeSortDefineKey method
DATA-SORT-KEY[n]	RangeSortDefineKey method
DATA-SORT-RANGE	SortRange property

Style macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{COLUMN-WIDTH}	ColumnWidth property
{COLUMN-WIDTH-FIT-WIDEST}	FitWidest method
{COLUMN-WIDTH-RESET}	ResetColumnWidth method
{HIDE-COLUMNS}	HideColumns method
{HIDE-SHEETS}	HideSheets method
{NAMED-STYLE-USE}	StyleName property
{PAGE-BREAK-COLUMN}	VerticalPageBreak property
{PAGE-BREAK-ROW}	HorizontalPageBreak property
{PROTECT}	IsProtected property
{UNPROTECT}	IsProtected property
{ROW-HEIGHT}	RowHeight property
{ROW-HEIGHT-FIT-LARGEST}	FitTallest method
{SHOW-COLUMNS}	UnhideColumns method
{SHOW-SHEETS}	ShowSheet method
{STYLE-ALIGN-HORIZONTAL}	TextHorizontalAlign property
{STYLE-ALIGN-ORIENTATION}	TextOrientation property
{STYLE-ALIGN-VERTICAL}	TextVerticalAlign property
{STYLE-BORDER}	BottomBorder property GridBorder property HorizontalBorder property LeftBorder property OutlineBorder property RightBorder property TopBorder property VerticalBorder property
{STYLE-EDGE}	Arrow property EdgeColor property EdgeDashStyle property EdgeLineWidth property
{STYLE-FONT}	FontColor property FontName property
{STYLE-FONT-ALL}	Bold property Italic property Underline property DoubleUnderline property WideUnderline property
{STYLE-FONT-ATTRIBUTES}	Bold property Italic property Underline property

	DoubleUnderline property
	WideUnderline property
{STYLE-FONT-RESET}	StyleFontReset method
{STYLE-FONT-SIZE}	Size property
{STYLE-FRAME}	DesignerFrameColor property
	DesignerFrameStyle property
{STYLE-GALLERY}	SetGalleryStyle method
{STYLE-INTERIOR}	BackColor property
	Background property
	Color property
	ColorName property
	Font property
	FontColor property
	NegativesInColor property
{STYLE-LINE}	Arrow property
	EdgeColor property
	EdgeDashStyle property
	EdgeLineWidth property
{STYLE-NUMBER-FORMAT}	Format method
{STYLE-NUMBER-FORMAT-RESET}	FormatReset method

Text file macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents. For more information on individual LotusScript statements and functions, search on the function or statement name in the LotusScript Index.

LotusScript offers the standard capabilities of a structured programming language and the 1-2-3 classes are an extension of that language that enables object-oriented application development within 1-2-3 and across other Lotus products as well.

1-2-3 Release 5	LotusScript
{CLOSE}	Close statement
{FILESIZE}	FileLen function
{GETPOS}	Seek function
{OPEN}	Open statement
{READ}	Line Input # statement
{READLN}	Line Input # statement
{SETPOS}	Seek statement
{WRITE}	Print # statement
	Write # statement
{WRITELN}	Print # statement
	Write # statement

Tools macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{ADDIN-INVOKE}	No longer supported
{ADDIN-LOAD}	LoadAddin method
{ADDIN-REMOVE}	UnloadAddin method
{ADDIN-REMOVE-ALL}	No longer supported
{AUDIT}	No LotusScript equivalent
{MAP-NEW}	NewMap method
{MAP-REDRAW}	RedrawMap method
{REGISTER}	Declare statement
{SMARTICONS-USE}	ShowIconBar method
{SPELLCHECK?}	No LotusScript equivalent
{UNREGISTER}	No longer supported

User environment macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3.

- For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).
- For more information on individual LotusScript statements and functions, search on the function or statement name in the LotusScript Index.
- For more information about using the LotusScript Dialog Editor, search on "Dialog Editor" in the LotusScript Index.

1-2-3 Release 5	Current release of 1-2-3
{?}	Yield statement
{ALERT}	MessageBox function
{BEEP}	Beep statement
{BREAKOFF}	No LotusScript equivalent
{BREAKON}	No LotusScript equivalent
{CHOOSE-FILE}	Custom dialog boxes created with the LotusScript Dialog Editor
{CHOOSE-ITEM}	Custom dialog boxes created with the LotusScript Dialog Editor
{CHOOSE-MANY}	Custom dialog boxes created with the LotusScript Dialog Editor
{CHOOSE-ONE}	Custom dialog boxes created with the LotusScript Dialog Editor
{DIALOG}	Show method
{DIALOG?}	No LotusScript equivalent
{FORM}	No longer supported
{FORMBREAK}	No longer supported
{GET}	GetKey method
{GET-FORMULA}	InputBox function
{GET-LABEL}	InputBox function
{GET-NUMBER}	InputBox function
{GET-RANGE}	RangeSelector property
{LOOK}	No LotusScript equivalent
{MENUMBRANCH}	No LotusScript equivalent
{MENUCALL}	No LotusScript equivalent
{MENU-COMMAND-ADD}	AddItem method
{MENU-COMMAND-DISABLE}	DisableItem method
{MENU-COMMAND-ENABLE}	EnableItem method
{MENU-COMMAND-REMOVE}	RemoveItem method
{MENU-CREATE}	AddMenu method NewMenuBar method
{MENU-INSERT}	AddMenu method NewMenu method
{MENU-RESET}	ResetMenuBar method

{MODELESS-DISMISS}	Custom dialog boxes created with the LotusScript Dialog Editor. Search on "Modeless dialog boxes" in the LotusScript Index.
{MODELESS-DISPLAY}	Custom dialog boxes created with the LotusScript Dialog Editor. Search on "Modeless dialog boxes" in the LotusScript Index.
{PLAY}	No LotusScript equivalent
{WAIT}	No LotusScript equivalent

User Setup info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
SETUP-AUTOEXEC	AutoExecMacrosEnabled property
SETUP-AUTOFORMAT	No longer supported
SETUP-AUTOSAVE	No longer supported
SETUP-AUTOSAVE-INTERVAL	No longer supported
SETUP-BEEP	BeepsOnError property
SETUP-DRAG-AND-DROP	DragAndDropEnabled property
SETUP-DRAG-AND-DROP-PROMPT	ConfirmDragAndDrop property
SETUP-FILE-LINK-UPDATE	UpdateLinksOnOpenDoc property
SETUP-INTERNATIONAL-CURRENCY-DEFAULT	No LotusScript equivalent
SETUP-INTERNATIONAL-CURRENCY-DISPLAY	No longer supported
SETUP-INTERNATIONAL-CURRENCY-POSITION	No LotusScript equivalent
SETUP-INTERNATIONAL-CURRENCY-SYMBOL	No LotusScript equivalent
SETUP-INTERNATIONAL-DATE	DateOrder property
SETUP-INTERNATIONAL-NEGATIVE-VALUES	DefaultNegCurrencyFormat property
SETUP-INTERNATIONAL-SEPARATORS	DecimalSeparator property ThousandsSeparator property
SETUP-INTERNATIONAL-TEXT	TextCodePage property
SETUP-INTERNATIONAL-TIME	TimeCycle property
SETUP-INTERNATIONAL-WK1	No LotusScript equivalent
SETUP-RECALCULATE	CalcMode property
SETUP-RECALCULATE-ITERATIONS	CalcIterations property
SETUP-RECALCULATE-ORDER	CalcOrder property
SETUP-RECENT-FILES-NUMBER	NumberOfMostRecentFiles property
SETUP-SKIP-SMARTMASTERS	SmartMasterOn property
SETUP-SKIP-WELCOME	WelcomeOn property
SETUP-UNDO	UndoEnabled property
SETUP-WORKSHEET-DIRECTORY	DefaultPath property
DIRECTORY	DefaultPath property

Version Manager macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{RANGE-VERSION?}	No longer supported
{SCENARIO-ADD-VERSION}	AddVersion method
{SCENARIO-CREATE}	NewVersionGroup method
{SCENARIO-DELETE}	DeleteVersionGroup method
{SCENARIO-INFO}	Description property Share property
{SCENARIO-REMOVE-VERSION}	RemoveVersion method
{SCENARIO-SHOW}	MakeCurrent method
{VERSION-CREATE}	NewVersion method
{VERSION-DELETE}	DeleteVersion method
{VERSION-INDEX-COPY}	No longer supported
{VERSION-INDEX-MERGE}	MergeVersions method
{VERSION-INFO}	Description property Share property StylesRetained property
{VERSION-REPORT}	ReportVersion method
{VERSION-SHOW}	MakeCurrent method
{VERSION-UPDATE}	No longer supported

Window and screen display macro commands

The table below lists macro commands in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
{APP-ADJUST}	Move method (windows) Resize method Restore method
{APP-STATE}	Maximize method Minimize method Restore method
{BREAK}	No LotusScript equivalent
{FRAMEOFF}	ShowSheetFrame property
{FRAMEON}	ShowSheetFrame property
{INDICATE}	LongPrompt property
{PANELOFF}	No LotusScript equivalent
{PANELON}	No LotusScript equivalent
{VIEW-ZOOM}	ZoomTo method
{WINDOW-ACTIVATE}	Activate method
{WINDOW-ADJUST}	Move method (windows) Resize method Restore method
{WINDOW-ARRANGE}	Cascade method Tile method TileHorizontal method TileVertical method
{WINDOW-STATE}	Maximize method Minimize method Restore method
{WINDOWSOFF}	UpdateSheetDisplay property
{WINDOWSON}	UpdateSheetDisplay property
{WORKSHEET-TITLES}	HorizontalTitle property VerticalTitle property

Window info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
WINDOW-CUSTOM-ZOOM	ZoomScale property
WINDOW-DISPLAY-DRAWN-OBJECTS	ShowDrawLayer property
WINDOW-DISPLAY-EDIT-LINE	EditLineVisible property
WINDOW-DISPLAY-FRAME	ShowSheetFrame property
WINDOW-DISPLAY-FRAME-TYPE	No longer supported
WINDOW-DISPLAY-GRID-LINES	ShowGridLines property
WINDOW-DISPLAY-PAGE-BREAKS	ShowAutomaticPageBreaks property
	ShowManualPageBreaks property
WINDOW-DISPLAY-SCROLL-BARS	ShowScrollBars property
WINDOW-DISPLAY-SMARTICONS	IconBarsVisible property
WINDOW-DISPLAY-STATUS-BAR	StatusBarVisible property
WINDOW-DISPLAY-TABS	ShowSheetTabs property
WINDOW-HEIGHT	Height property
WINDOW-SPLIT	ViewSplitStyle property
WINDOW-SPLIT-HEIGHT	No longer supported
WINDOW-SPLIT-SYNCHRONIZE	SynchScrolling property
WINDOW-SPLIT-WIDTH	No longer supported
WINDOW-WIDTH	Width property
WINDOW-X-POSITION	Left property
WINDOW-Y-POSITION	Top property

Worksheet Defaults info component equivalents

The table below lists info components in 1-2-3 Release 5 for Windows and their LotusScript equivalents in the current release of 1-2-3. For more information on individual 1-2-3 properties and methods, see [1-2-3 LotusScript A-Z](#).

1-2-3 Release 5	Current release of 1-2-3
WORKSHEET-ALIGN-TEXT	TextHorizontalAlign property
WORKSHEET-BACKGROUND-COLOR	Color property
WORKSHEET-COLUMN-WIDTH	DefaultColumnWidth property InitialColWidth property
WORKSHEET-DISPLAY-WINDOWS-DEFAULTS	WindowsDefaultsDisplayed property
WORKSHEET-FONT	DefaultFontName property FontName property
WORKSHEET-FONT-SIZE	DefaultFontSize property
WORKSHEET-FORMAT	FormatName property
WORKSHEET-FORMAT-COLOR-NEGATIVES	NegativesInColor property
WORKSHEET-FORMAT-DECIMALS	FormatDecimals property
WORKSHEET-FORMAT-DISPLAY-ZEROS	IsZeroDisplayed property
WORKSHEET-FORMAT-PARENTHESES	IsParenthesized property
WORKSHEET-FORMAT-ZERO-TEXT	ZeroDisplayAs property
WORKSHEET-GRID-COLOR	GridLineColor property
WORKSHEET-GROUP-SHEETS	GroupSheets method
WORKSHEET-ROW-HEIGHT	DefaultRowHeight property InitialRowHeight property
WORKSHEET-TAB-COLOR	TabColor property
WORKSHEET-TEXT-COLOR	ColorName property DefaultTextColor property FontColor property

Viewing log files

1-2-3 could not translate some information in the file you opened or saved.

Choose a task

[Viewing the Excel log file](#)

[Viewing the Quattro Pro log file](#)

{button ,AL('H_WORKING_WITH_EXCEL_FILES_OVER;H_WORKING_WITH_QUATTRO_PRO_FILES_OVER',0)}

[See related topics](#)

Viewing the Quattro Pro log file

When you open a Quattro Pro file in 1-2-3, not all information is translated or retained. 1-2-3 lists the data that could not be translated and saves it in a separate log file.

For example, if you open DATA.WB2 in 1-2-3 and the file contains an @function that has no equivalent in 1-2-3, 1-2-3 creates a log file called DATA.LOG that contains information about the untranslated @function. 1-2-3 saves the log file in the same folder that contains DATA.WB2.

If the folder where 1-2-3 puts the log file already contains a log file with the same name, the new log file replaces the previous one.

To view the log file, use a word processing program such as Word Pro, or a text editor.

{button ,AL('H_WORKING_WITH_QUATTRO_PRO_FILES_OVER',0)} [See related topics](#)

Working with 1-2-3 for DOS files

You can open and save these 1-2-3 for DOS file types in 1-2-3 Release 9:

- 1-2-3 for DOS Releases 3 and 4 (.WK3)
- 1-2-3 for DOS Release 2 (.WK1)

1-2-3 Release 9 has many features that aren't available in 1-2-3 for DOS. When you save a 1-2-3 Release 9 file as a .WK1 or .WK3 file, information associated with new features is either lost or converted to default settings. To preserve this information, save the file using the file type for the current release before you save it as a .WK1 or .WK3 file.

Note To save a locked .123 file in .WK1 format, you must first unlock the file using File - Workbook Properties (Security tab). To convert a multiple-sheet file to a .WK1 file, use Edit - Copy and Edit - Paste to copy data from the multiple-sheet file in memory to a single-sheet file in memory, and then save the single-sheet file as a .WK1 file.

When you save a 1-2-3 Release 9 file as a .WK1 or .WK3 file, the following information is not retained:

- HTML settings for data published to a Web page
- Web table and hyperlink connections
- OLE links and borders for datalink tables
- Settings for multi-line headers and footers, header and footer height, printing collections on separate pages, and page numbers greater than 9,999
- LotusScript information
- Outlining
- New windows
- Query tables. 1-2-3 saves query tables as sheet data.
- Graphics and maps, except for charts
- Approach forms, reports, crosstabs, and mailing labels, and other embedded data from other Windows applications
- Settings that control the display of the sheet frame, grid lines, page breaks, and charts, and the displayed size of cells
- Sheet settings including names, and default text and cell background colors. If you don't delete or reorder the sheets in a .WK3 file in 1-2-3 for DOS Release 3 or 4, you see the previous sheet names when you reopen the file in 1-2-3 Release 9.
- File information such as title, subject, and description entered in the Workbook Properties dialog box or the Save As dialog box
- Information necessary to use File - TeamMail to send ranges of data
- Formula markers
- Cell comments

This additional information is lost when you save a 1-2-3 Release 9 file as a .WK1 file:

- ANSI characters that have no LICS equivalent
- Formula annotations
- Named print settings
- Grouped sheet settings
- The third variable in three-variable what-if tables

Character sets

When you open a .WK1 file, 1-2-3 uses LICS to read characters in the file.

Charts

When you save a .123 file containing charts as a .WK1 or .WK3 file, and then open the file in 1-2-3 for DOS Release 2 or 3, you'll notice these differences:

- Charts display only the first six data series.
- Grid, radar, mixed, and HLCO charts appear as line charts.
- Doughnut charts are converted to pie charts.

- Mixed charts that combine 3D bars with a 2D line appear as 3D bars with a 3D line.
- 3D charts appear as the corresponding 2D chart type in versions of 1-2-3 for DOS that don't support 3D charts.
- The legend appears below the plot area.
- 1-2-3 converts data series colors and patterns to the closest 1-2-3 for DOS equivalent.
- Fonts may not map to a close equivalent.

If you don't edit the charts in a .WK3 file in 1-2-3 for DOS Release 3 or 4, you see the previous chart settings when you reopen the file in 1-2-3 Release 9.

When you create a pie chart in 1-2-3, 1-2-3 assumes that you don't want to plot negative values and omits the associated slices. Release 2 for DOS plots the absolute value of negative numbers. To make 1-2-3 pie charts created in the current release of 1-2-3 consistent with Release 2 for DOS, use @ABS to make the negative numbers positive, or create formulas to copy the positive value of the numbers to another range.

To work with named charts created in 1-2-3 for DOS, open the file in the current release. Choose Edit - Go To, select "Charts" as the object type, and then select the named chart. 1-2-3 adds the chart to the center of the sheet area displayed on the screen. You can drag the chart to where you want it.

Data queries

To use input, output, and criteria ranges saved in a .WK1 or .WK3 file, use the /Data Query commands in 1-2-3 Classic.

If you plan to share files containing queries with other versions of 1-2-3, you must use input, output, and criteria ranges and the /Data commands in 1-2-3 Classic.

OLE links

If you save a file that contains a datalink table, as a .WK1 or .WK3 file, 1-2-3 retains the data in the cells but the OLE link and table border are lost.

DDE links

If you save a file that contains DDE links created with @DATALINK as a .WK1 or .WK3 file, 1-2-3 saves the links as add-in @functions that evaluate to NA or ERR. If you don't edit the cells containing the @function, 1-2-3 Release 9 retains the links when you reopen the file.

Displaying long values

For display only, the current release of 1-2-3 rounds the number of digits in a value to fit in a cell. Release 2 for DOS cuts off the digits that don't fit.

File links

In the current release of 1-2-3, when you open a .WK1 file that contains a reference to another file, the file link looks like this: @@("<<FILE NAME>>RANGE").

If you open a .WK1 file containing a file link in Release 2.01 for DOS, the formula results in ERR because Release 2.01 doesn't support file links.

Formulas

1-2-3 lets you use a range name in a formula even if you haven't assigned the name to a range. Formulas that contain undefined range names evaluate to ERR until you assign the range name to a range address.

Formulas that contain more than 240 characters are saved as is. However, if you try to edit such a formula in Release 2 for DOS, 1-2-3 truncates the formula after the 240th character.

@Functions

@Functions that are not available and @functions that have unavailable arguments in 1-2-3 for DOS are treated as add-in @functions when you save them in a .WK1 or .WK3 file. Cells that contain these @functions evaluate to NA in Release 2 for DOS, and to ERR in Releases 3 and 4. If you don't edit the cells containing these @functions, the current release of 1-2-3 restores the original @functions when you reopen the file.

In the current release of 1-2-3, database @functions can take a formula as their last argument, while 1-2-3 for DOS supports only a criteria range. If you save database @functions that contain a formula argument in a .WK1 or .WK3 file, they won't work in 1-2-3 for DOS.

When you open a .WK1 or .WK3 file containing @functions that were created by a 1-2-3 for DOS add-in program, the @functions evaluate to ERR in the current release.

In 1-2-3 Release 9, if you enter 2-digit years in @DATE, 1-2-3 always interprets the year as falling in the 20th century (1900 to 1999). However, @functions that use text arguments to specify dates (for example, @DATEVALUE) use a sliding window setting to determine the century in which a 2-digit year falls. For more information, see 1-2-3 and the year 2000.

Hidden cell contents

When you lock a file in 1-2-3, hidden cell contents don't appear in the contents box. In Release 2.01 for DOS, hidden cell contents appear in the control panel, even if global protection is turned on.

Number formats

If you format data using either the Euro or ISO Euro currency format, and then save the file as an earlier 1-2-3 file type, 1-2-3 converts the currency format to Comma format.

When you save a .123 file that contains multiple currency formats as a .WK1 file, and then open the file in 1-2-3 for DOS, 1-2-3 displays the multiple currency formats using the default currency setting specified in the version of 1-2-3 for DOS in which you opened the file. If you reopen the file in the current release, 1-2-3 doesn't restore the multiple currency formats.

Perspective view

If you try to open a file saved in perspective view, 1-2-3 will open the file with the default workbook view.

Print settings

When you open .WK3 or .WK1 files created in 1-2-3 for DOS, the print settings information saved in the associated .ALS or .AL3 file cannot be accessed by the current release of 1-2-3. To use print settings that you saved in a .WK1 or .WK3 file created in 1-2-3 for DOS, use the /Print commands in 1-2-3 Classic.

The current release of 1-2-3 does not save print settings information in an .ALS or .AL3 file when you save the worksheet as a .WK3 or .WK1 file.

Range names

In 1-2-3 Release 9, each sheet contains 65,536 rows. If you open a file created in an earlier 1-2-3 release and the file contains a range name that looks like a cell address (for example, T35000), formulas that reference the range name can produce unexpected results. For detailed information on valid range names, see Naming a range.

Significant digits

Because the current release of 1-2-3 calculates values to 15 significant digits while 1-2-3 for DOS Releases 3 and 4 calculate to 18 digits, a logical formula comparing two values may produce different results. If needed, use @ROUND to round the result to 15 significant digits.

Sort keys

1-2-3 lets you create up to 255 sort keys while Release 2 for DOS supports only two sort keys. If you save a .123 file containing extra sort keys as a .WK1 file, the extra sort keys are lost.

Styling

When you save a .123 file as a .WK3 file, 1-2-3 saves styles in a format file. 1-2-3 does not create a format file when you use File - Save As to save a .WK1 file. All styling information will be converted to the closest default style, or lost.

When you open the file in 1-2-3 for DOS, the data in the file looks different depending on whether WYSIWYG is loaded. The current release of 1-2-3:

- Changes styles not recognized in .WK1 and .WK3 files to 1-2-3 for DOS default styles.
- Uses the first eight fonts on the sheet and converts the rest to their closest equivalents in 1-2-3 for DOS.
- Converts colors, line styles, and line widths to their closest 1-2-3 for DOS equivalent.
- Converts patterns to the closest type of shading.
- Places left-aligned or centered values to the right; aligns data that was evenly spaced in cells or aligned across columns to the left.
- Converts number formats that do not exist in Release 2 for DOS to default Release 2 formats.
- Converts frames with a drop shadow to drop shadows, and maps other frames to various border styles.
- Retains the first eight named styles and the first six characters of each named style name. New settings, such as number format and alignment, are lost. Ranges formatted with other named styles retain their settings, but the

named styles can't be applied to other ranges.

- Converts settings created with the Style Gallery to their closest equivalent.

Transposing ranges

When you transpose a range containing formulas in 1-2-3, 1-2-3 copies the formula results rather than the formulas. Release 2.01 for DOS copies the formulas rather than their results.

Versions and version groups

If you save a .123 file containing versions and version groups as a .WK1 or .WK3 file, 1-2-3 keeps only the version or version group data currently displayed and treats it as sheet data.

To share versions and version groups created in the current release with 1-2-3 Release 4 for DOS, first save the file as a .123 file before saving it as a .WK4 file. Then, resave the .WK4 file as a .WK3 file using 1-2-3 Release 5 for Windows, or convert it to a .WK3 file using the Translator utility in 1-2-3 Release 4 for DOS. 1-2-3 retains the data but not the tracking information that tells you who created or modified the data, when, and why. Styles applied to the versions are also lost.

All lowercase characters in version and version group names are converted to uppercase in the .WK3 file. To avoid breaking any @functions or macro commands that refer to the names, be sure to use uppercase characters only.

If you want to use the current release of 1-2-3 to work with versions and version groups created in 1-2-3 Release 4 for DOS, you can open the .WK3 file in 1-2-3 Release 5 for Windows and resave it as a .WK4 file, or use the Translator utility in 1-2-3 Release 4 for DOS to convert the file to .WK4 format.

If you open a .WK4 file that contains any versions or version groups with the same name, 1-2-3 renames them with a unique name. For example, if the file contains two versions called "BEST CASE" in the same range, 1-2-3 renames one "BEST CASE1."

If the ranges that contain the versions exceed 2000 cells, 1-2-3 can't interpret any versions and treats the versions or version group data currently displayed as sheet data.

{button ,AL('H_WORKING_WITH_123_FILES_OVER;H_123_WORKING_WITH_OS2_FILES_OVER;H_OPENING_AN_EXISTING_FILE_STEPS;H_SAVING_AN_EXISTING_FILE_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS',0)} [See related topics](#)

Working with 1-2-3 for OS/2 files

You can open and save 1-2-3 for OS/2 Warp™ 4 .123 files in 1-2-3 Release 9.

1-2-3 Release 9 has features that aren't available in 1-2-3 for OS/2 Warp 4. When you save a 1-2-3 Release 9 file as a 1-2-3 for OS/2 Warp 4 .123 file, information associated with new features may be lost. To preserve this information, save the file using the file type for the current release before you save it as a 1-2-3 for OS/2 Warp 4 .123 file.

When you save a file as a 1-2-3 for OS/2 Warp 4 .123 file, the following information is not retained:

- HTML settings for data published to a Web page
- Web table and hyperlink connections
- OLE links and borders for datalink tables
- Settings for multi-line headers and footers, header and footer height, printing collections on separate pages, and page numbers greater than 9,999

Charts

1-2-3 Release 9 lets you create a mixed chart type that combines 3D bars with a 2D line. If you save a file that contains this type of chart as a 1-2-3 for OS/2 Warp 4 .123 file, the 2D line setting is lost.

@Functions

@Functions that are not available in 1-2-3 for OS/2® are treated as add-in @functions when you save them in a 1-2-3 for OS/2 Warp 4 .123 file. Cells that contain these @functions evaluate to ERR when you open a file containing them in 1-2-3 for OS/2. If you don't edit the cells containing these @functions and then reopen the file in 1-2-3 Release 9, the original @functions are restored.

In 1-2-3 Release 9, if you enter 2-digit years in @DATE, 1-2-3 always interprets the year as falling in the 20th century (1900 to 1999). However, @functions that use text arguments to specify dates (for example, @DATEVALUE) use a sliding window setting to determine the century in which a 2-digit year falls. For more information, see 1-2-3 and the year 2000.

OLE links

1-2-3 for OS/2 does not support OLE. If you save a 1-2-3 Release 9 file that contains a datalink table as a 1-2-3 for OS/2 .123 file, 1-2-3 retains the data in the cells but the OLE link and table border are lost.

DDE links

Both 1-2-3 for OS/2 Warp 4 and 1-2-3 Release 9 use @DATALINK to create DDE links. If you want to share files that contain DDE links with 1-2-3 for OS/2, you must save the information as a 1-2-3 for OS/2 Warp 4 .123 file.

Number formats

If you format data using either the Euro or ISO Euro currency format, and then save the file as a 1-2-3 for OS/2 Warp 4 .123 file, 1-2-3 converts the currency format to Comma format.

Range names

In 1-2-3 Release 9, each sheet contains 65,536 rows. If you open a file created in an earlier 1-2-3 release and the file contains a range name that looks like a cell address (for example, T35000), formulas that reference the range name can produce unexpected results. For detailed information on valid range names, see Naming a range.

{button ,AL('H_WORKING_WITH_123_FILES_OVER;H_123_WORKING_WITH_DOS_FILES_OVER;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING_AN_EXISTING_FILE_STEPS;H_OPENING_AN_EXISTING_FILE_STEPS',0)} See related topics

Working with 1-2-3 for Windows files

You can open and save these 1-2-3 for Windows file types in 1-2-3 Release 9:

- 1-2-3 Release 9 (.123)
- 1-2-3 97 (.123)
- 1-2-3 for Windows Releases 4 and 5 (.WK4)
- 1-2-3 for Windows Release 1 (.WK3)

1-2-3 Release 9 has features that aren't available in earlier 1-2-3 releases. When you save a 1-2-3 Release 9 file as an earlier 1-2-3 file type, information associated with new features may be lost. To preserve this information, save the file using the file type for the current release before you save it as an earlier file type.

When you save a file as a Lotus 1-2-3 97 .123 file, or as a 1-2-3 .WK3 or .WK4 file, the following information is not retained:

- HTML settings for data published to a Web page
- Web table and hyperlink connections
- Settings for multi-line headers and footers, header and footer height, printing collections on separate pages, and page numbers greater than 9,999

This additional information is lost when you save a file as a 1-2-3 .WK3 or .WK4 file:

- LotusScript information
- Outlining
- New windows
- OLE links and borders for datalink tables

Duplicate style names

If you open a .WK3 or .WK4 file that contains named styles that have the same name, 1-2-3 appends a number to the end of the second style name to distinguish between the two.

For example, if the workbook contains a named style called "BoldTotal" and a second named style called "Boldtotal," 1-2-3 converts both named style names to uppercase and renames the second named style "BOLDTOTAL1."

@Functions

@Functions that are not available and @functions that have unavailable arguments in previous releases of 1-2-3 are treated as add-in @functions when you save them in a .WK3 or .WK4 file. Cells that contain these @functions evaluate to ERR when you open a file containing them in a previous release. If you don't edit the cells containing these @functions and then reopen the file in 1-2-3 Release 9, the original @functions are restored.

@DATALINK works differently in 1-2-3 Release 9 than in 1-2-3 97. In 1-2-3 Release 9, @DATALINK creates a DDE link. In 1-2-3 97, @DATALINK creates an OLE link.

In 1-2-3 Release 9, if you enter 2-digit years in @DATE, 1-2-3 always interprets the year as falling in the 20th century (1900 to 1999). However, @functions that use text arguments to specify dates (for example, @DATEVALUE) use a sliding window setting to determine the century in which a 2-digit year falls. For more information, see 1-2-3 and the year 2000.

OLE links

When you open a 1-2-3 97 .123 file that contains @DATALINK in 1-2-3 Release 9, 1-2-3 retains the OLE link and replaces @DATALINK with a datalink table.

When you save a file that contains a datalink table as a 1-2-3 97 .123 file, 1-2-3 uses @DATALINK to retain the OLE link. If you save a file that contains a datalink table as a .WK4 file, 1-2-3 retains the data in the cells but the OLE link and table border are lost.

DDE links

1-2-3 for Windows Release 5 uses @DDELINK to create a DDE link. When you open a 1-2-3 for Windows Release 5 .WK4 file that contains @DDELINK, 1-2-3 Release 9 retains the DDE link by replacing @DDELINK with @DATALINK.

When you save a file that contains @DATALINK as a .WK4 file, 1-2-3 replaces @DATALINK with @DDELINK.

Data queries

1-2-3 Release 9 comes with a Data Query Add-in (DQA) that provides functionality similar to that of 1-2-3 for

Windows Release 5 and the DQA add-in created for use with 1-2-3 97.

You can create query tables with DQA and then save them as a 1-2-3 97 .123 file or a .WK4 file. You can also open files that contain DQA data queries created in 1-2-3 97 and 1-2-3 Release 5 and work with them in 1-2-3 Release 9.

Macro buttons

If you open a .WK4 file that contains a macro button that was created in 1-2-3 Release 5 for Windows, 1-2-3 updates the button by embedding its macro commands in a LotusScript Click event. When you click the button, 1-2-3 executes the Click event. You can add more LotusScript or macro commands to the Click event. However, if you resave the .WK4 file, new LotusScript or macro commands are not saved. To save these new LotusScript or macro commands, save the file as a .123 file.

Note Once you have saved a file containing buttons as a .123 workbook, the original macro text is available only in the Click event. Therefore, buttons in .123 files will not work if you later save the file in .WK4 format. To retain the original macro text, save files containing buttons as .WK4 files.

Maps and charts

When you open a .WK4 file that contains a map that was created in 1-2-3 Release 5 for Windows, 1-2-3 converts the map to a .123 map.

Caution If you resave the .WK4 file, the map object will be lost. To retain the map, save the file as a .123 file.

1-2-3 Release 9 lets you create a mixed chart type that combines 3D bars with a 2D line. If you save a file that contains this type of chart as an earlier 1-2-3 file type, the 2D line setting is lost.

If you save a file that contains a grid chart as a .WK3 or .WK4 file, the grid chart is converted to a line chart. Similarly, if the file contains any doughnut charts, they are converted to pie charts.

Number formats

If you format data using either the new Euro or ISO Euro currency format, and then save the file as an earlier 1-2-3 file type, 1-2-3 converts the currency format to Comma format.

When you save a 1-2-3 file that contains multiple currency formats as a .WK3 file, and then open the file in 1-2-3 for Windows Release 1, 1-2-3 displays the multiple currency formats using the default currency setting specified in 1-2-3 for Windows Release 1. If you reopen the file in 1-2-3 Release 9, 1-2-3 doesn't restore the multiple currency formats.

You'll see the same result if you open a 1-2-3 file that contains multiple currency formats in 1-2-3 for Windows Release 4.0. However, if you don't modify the number formats, 1-2-3 displays the multiple currency formats when you reopen the file in 1-2-3 Release 9.

Print settings

When you open a .WK4, .WK3, or .WK1 file, you can use the print settings information saved with that file by choosing File - Preview & Page Setup (Named Style tab), clicking Retrieve, and selecting the appropriate .AL3 file. 1-2-3 Release 9 does not save print settings information in an .AL3 file when you save the workbook as a .WK4, .WK3, or .WK1 file.

Range names

In 1-2-3 Release 9, each sheet contains 65,536 rows. If you open a file created in an earlier 1-2-3 release and the file contains a range name that looks like a cell address (for example, T35000), formulas that reference the range name can produce unexpected results. For detailed information on valid range names, see [Naming a range](#).

Significant digits

Because 1-2-3 calculates values to 15 significant digits while 1-2-3 Release 5 for Windows calculates to 18 digits, a logical formula comparing two values may produce different results. If needed, use @ROUND to round the result to 15 significant digits.

Versions and version groups

Releases prior to 1-2-3 for Windows Release 4 do not support different sets of data in the same named range. In the current release, if you save a .123 file containing versions and version groups as a .WK3 file, 1-2-3 keeps only the version or version group data currently displayed and treats it as sheet data.

If you open a .WK4 file that contains any versions or version groups with the same name, 1-2-3 renames them with a unique name. For example, if the file contains two versions called "Best Case" in the same range, 1-2-3 renames one "Best Case1."

{button ,AL('H_123_WORKING_WITH_DOS_FILES_OVER;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING
_AN_EXISTING_FILE_STEPS;H_OPENING_AN_EXISTING_FILE_STEPS;H_123_WORKING_WITH_OS2_FILE
S_OVER',0)} [See related topics](#)

Working with dBASE and Paradox files

In the current release of 1-2-3, you can open dBASE IV (.DBF) and Paradox (.DB) files, and combine data from these file types on disk into an open workbook. You can also save dBASE IV and Paradox files.

To open and save dBASE IV and Paradox files, you must install ODBC drivers for dBASE IV and Paradox. The 1-2-3 default is to install the driver for dBASE IV only.

Opening dBASE IV and Paradox files

When opening a dBASE IV or Paradox file, you can either specify the file type and select the file you want, or type the file name with a .DBF or .DB extension. dBASE IV and Paradox files that you have open in 1-2-3 are not locked and can still be accessed or changed by others on your network.

You can insert rows for new records, and columns for new fields, within the range of the original dBASE IV or Paradox table. When you save the file, 1-2-3 inserts these new records into the table and creates a new table with a new table definition. However, 1-2-3 does not save new records appended at the end of the table, or new fields added outside the range of the original table, in the dBASE IV or Paradox file.

Saving dBASE IV and Paradox files

When you save changes to a dBASE IV or Paradox file, 1-2-3 saves only the data in the database table range, including data in rows or columns that you added within this range. Nothing outside this range is saved. Styles, number formats, charts, and drawn objects are not saved to the dBASE or Paradox file.

When you save a .123 file in .DBF or .DB format, you can save only a selected range containing a valid database table. You save the file using File - Save As, and you must select "Selected range only." 1-2-3 saves only the data in the selected range. Styles, number formats, charts, and drawn objects are not saved.

You cannot save a .123 file in .DBF or .DB format with a password or comments. The dBASE IV or Paradox file does not maintain any password protection for the .123 file you saved. If you save a .123 file to a dBASE IV or Paradox file that has a password, 1-2-3 writes over the password and you have to create a new password for the dBASE IV or Paradox file.

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_CLOSING_AND_SAVING_FILES_OVER;H_123_OD
BC_DRIVERS_OVER',0)} [See related topics](#)

Working with Quattro Pro files

You can open these Quattro Pro file types in 1-2-3 Release 9:

- .WQ1 files created in Quattro Pro for DOS Versions 1.0 through 4.0
- .WB1 files created in Quattro Pro Versions 1.0 and 5.0 for Windows
- .WB2 files created in Quattro Pro Version 6.0 for Windows

Note You cannot open .WB3 files created in Quattro Pro Version 7.0 for Windows 95.

1-2-3 treats Quattro Pro template files and macro library files as standard files.

1-2-3 records information about untranslated data in the Quattro Pro log file.

Quattro Pro log file

When you open a Quattro Pro file in 1-2-3, not all information is translated or retained. 1-2-3 lists the data that could not be translated and saves it in a separate log file.

For example, if you open DATA.WB2 in 1-2-3 and the file contains an @function that has no equivalent in 1-2-3, 1-2-3 creates a log file called DATA.LOG that contains information about the untranslated @function. 1-2-3 saves the log file in the same folder that contains DATA.WB2.

If the folder where 1-2-3 puts the log file already contains a log file with the same name, the new log file replaces the previous one.

To view the log file, use a word processing program such as Word Pro, or the Windows 95 WordPad or Notepad accessories.

Translation restrictions

When you open a Quattro Pro file in 1-2-3, 1-2-3 translates text, formulas, and values in the file. It also translates column widths, tab names, and many @functions. 1-2-3 does not translate:

- Graphic objects, including drawn objects and charts
- Object pages
- Notebook zoom and display settings
- Split views
- File links
- @Functions with no direct equivalent

Password-protected files

To open a Quattro Pro file that has password protection, you must remove the password in Quattro Pro before opening the file in 1-2-3.

Formatting

1-2-3 retains number and date formats. 1-2-3 converts other formatting such as alignment, colors, and fonts to the current default settings in 1-2-3.

Range names

1-2-3 translates range names and range name references in .WB1 and .WB2 files. If a Quattro Pro file contains range names that refer to a single cell, 1-2-3 replaces those range name references with cell addresses.

@Functions

1-2-3 translates many Quattro Pro @functions to the equivalent 1-2-3 @function. If a Quattro Pro @function has no equivalent in 1-2-3, 1-2-3 displays the Quattro Pro @function like this:

@<<QP>>FUNCTION NAME(ARGUMENTS); CURRENT VALUE

The current value is the last calculated value saved in Quattro Pro before translation. You must edit untranslated Quattro Pro @functions and formulas before you can use them in 1-2-3.

The log file lists untranslated Quattro Pro @functions and includes the cell location, @function name, and current value.

To use an untranslated Quattro Pro @function, you can:

- Write an add-in @function using an add-in development application
- Build a formula that recreates the untranslated @function
- Use the current value

Macros

1-2-3 does not translate Quattro Pro macros. You can run some Quattro Pro macro commands that are equivalent to 1-2-3 macro commands. However, customized macro applications will require rewriting before you can run them in 1-2-3.

{button ,AL('H_CREATING_AND_OPENING_FILES_OVER;H_123_VIEWING_THE_QUATTRO_PRO_LOG_FILE_S
TEPS',0)} [See related topics](#)

Checking spelling

1-2-3 checks for unknown and duplicate words.

1. Choose Edit - Check Spelling.



2. In the "Look in" list, specify where you want 1-2-3 to check for spelling errors.
3. Click Start.
4. To correct a word, select a word from the "Alternatives" list, or edit the word in the "Replace with" box, then click Replace.
5. To keep the original spelling, click Skip.
6. Repeat steps 4 and 5 for each unrecognized word.
7. Click Done.

{button ,AL('H_CHECKING_SPELLING_DETAILS',1)} [See details](#)

{button ,AL(';H_CHANGING_SPELL_CHECKING_OPTIONS_STEPS;H_EDITING_THE_SPELLING_DICTIONARY_STEPS;H_CHANGING_LANGUAGE_OPTIONS_STEPS;H_CREATING_A_USER_DICTIONARY_STEPS';,0)}
[See related topics](#)

Details: Checking spelling

Specifying where 1-2-3 checks for spelling errors

1-2-3 checks spelling in cells, text blocks, and maps.

- Current workbook -- Checks the spelling in all sheets of the current workbook.
- All workbooks -- Checks all active workbooks.
- Current sheet -- Checks the current sheet.
- Selected range -- Checks the range you specify. You can select the range before you choose Edit - Check Spelling, or you can click the range selector in the dialog box and select the range.

Note 1-2-3 does not check spelling in cell comments, non-displayed versions, embedded objects, or hidden sheets, columns, or rows. If you select a range to check, 1-2-3 doesn't check text blocks and maps in the range. It is not recommended to check spelling in query tables, Web tables, or datalink tables because changes will be overwritten when you refresh these tables.

Replacing, skipping, and adding words

If 1-2-3 doesn't find a word in the main dictionary or the user dictionary, you can:

Click	To
Replace	Correct the spelling of the word
Replace All	Correct the spelling of all occurrences of the word
Skip	Ignore the word, but stop on the next occurrence
Skip All	Ignore all occurrences of the word
Add to Dictionary	Add the word as spelled to the user dictionary

Canceling the spell check

You can click Done at any time to stop checking spelling. 1-2-3 saves all corrections made up to that point.

{button ,AL('H_CHECKING_SPELLING_STEPS',1)} Go to procedure

Changing spell checking options

You can specify what kind of words 1-2-3 looks for, and set dictionary options.

1. Choose Edit - Check Spelling.



2. Click Options.
3. Under Check for, select an option:
 - Repeated words -- Finds words that occur twice in a row, such as "the the".
 - Words with numbers -- For example, Quarter1 or 1st.
 - Words with initial caps -- For example, Sandra or Madrid.
4. Under Include, select an option:
 - User dictionary alternatives -- Displays words from the user dictionary as alternative spellings.
 - Macro/@function keywords, punctuation -- Recognizes macro keywords and @function names as correctly spelled, and argument separators as acceptable punctuation.
5. Click OK to return to the Check Spelling dialog box.

{button ,AL('H_CHANGING_SPELL_CHECKING_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_EDITING_THE_SPELLING_DICTIONARY_STEPS;H_CHANGING_LANGUAGE_OPTIONS_STEPS;
H_CREATING_A_USER_DICTIONARY_STEPS;',0)} [See related topics](#)

Details: Changing spell checking options

When you choose not to check for repeated words, 1-2-3 checks the spelling of the words, but doesn't report repeated words as an error.

When you choose not to check for words with numbers or words with initial capitals, 1-2-3 does not check the spelling of these words.

{button ,AL('H_CHANGING_SPELL_CHECKING_OPTIONS_STEPS',1)} [Go to procedure](#)

Changing to another dictionary

You can select the language and user dictionaries 1-2-3 uses to check spelling.

1. Choose Edit - Check Spelling.



2. Click Options.
3. To use a different language dictionary, select a language from the "Language" list.
4. To use a different user dictionary, click Choose User Dictionary, select a file with the extension .UDC, and click Open.

Note The default directory for dictionaries is \LOTUS\COMPONENT\SPELL.

5. Click OK to return to the Check Spelling dialog box.

{button ,AL('H_CHANGING_SPELL_CHECKING_OPTIONS_STEPS;H_EDITING_THE_SPELLING_DICTIONARY_STEPS;H_CREATING_A_USER_DICTIONARY_STEPS','0)} [See related topics](#)

Editing the user dictionary

The user dictionary contains words that are not in the language dictionary, but that you want 1-2-3 to recognize as correctly spelled.

1. Choose Edit - Check Spelling.



2. Click Edit Dictionary.
3. To add a word, enter it in the "New word" box and click Add.
4. To delete a word, select it in the "Current words" list and click Delete.
5. Click Done to return to the Check Spelling dialog box.

{button ,AL('H_EDITING_THE_SPELLING_DICTIONARY_DETAILS',1)} [See details](#)

{button ,AL(';H_CHECKING_SPELLING_STEPS;H_CHANGING_SPELL_CHECKING_OPTIONS_STEPS;H_CHANGING_LANGUAGE_OPTIONS_STEPS;',0)} [See related topics](#)

Details: Editing the user dictionary

Words appear in the following order in the "Current words" list: symbols and numbers in ASCII order, words in alphabetical order.

{button ,AL('H_EDITING_THE_SPELLING_DICTIONARY_STEPS',1)} [Go to procedure](#)

Creating a user dictionary

You can create a new user dictionary if you have a set of words that you want 1-2-3 to treat as spelled correctly, such as the names of team members or product names.

1. Choose Edit - Check Spelling.



2. Click Options.
3. Enter a path and file name in the "User dictionary" box.

Note The default directory for dictionaries is \LOTUS\COMPONENT\SPELL. The default user dictionary is LTSUSER1.UDC.

4. Click OK.
1-2-3 creates an empty dictionary.
5. (Optional) To add words to the dictionary, click Edit Dictionary.

{button ,AL(`H_EDITING_THE_SPELLING_DICTIONARY_STEPS;H_CHANGING_LANGUAGE_OPTIONS_STEPS;'
,0)} See related topics

Options dialog box

Use this dialog box to change spell checking options, change to another language dictionary, or create a new user dictionary.

Choose a task

[Changing spell checking options](#)

[Changing to another dictionary](#)

[Creating a user dictionary](#)

Creating a blank workbook

Creating a blank workbook is like starting with a clean piece of paper. You enter the data and formulas, and format the information yourself.

1. Start 1-2-3.
2. In the Welcome to 1-2-3 dialog box, click Create a Blank Workbook.

{button ,AL('H_OPENING_AN_EXISTING_SPREADSHEET_STEPS;H_USING_SMARTMASTERS_STEPS;',0)} See
related topics

Ending 1-2-3

When you end a session, 1-2-3 removes all active files from memory but does not delete the files from disk.

Note If you are working with file types associated with earlier 1-2-3 releases (for example Lotus 1-2-3 97 .123 or Lotus 1-2-3 Release 5 .WK4) and you used features that are new in the current release of 1-2-3, use File - Save to save the files individually before ending the 1-2-3 session.

1. From the File menu, choose Exit 1-2-3.

If you have modified one or more active files, 1-2-3 prompts you to save changes to each file before closing the file and ending the 1-2-3 session.

2. Choose one of the following options:

- Yes -- Saves changes to the file before ending the session.

If you created a new file, 1-2-3 displays the Save As dialog box so you can enter a name for the new file before ending the 1-2-3 session.

- No -- Closes the file without saving changes.
- Cancel -- Returns you to 1-2-3 without saving any active files, but you can save changes later.
- Save All -- Saves all active files that have changed, or updates all embedded 1-2-3 workbooks, and ends the 1-2-3 session.

Note If you are exiting a 1-2-3 workbook that is embedded in another application file, you return to the other application when the 1-2-3 session ends.

{button ,AL('H_ENDING_123_DETAILS',1)} [See details](#)

Details: Ending 1-2-3**Saving changes to all files**

If you worked with features that are new in the current release of 1-2-3 and want to retain that data, you must save the file containing that data using the file type for the current release.

If you choose Save All to save a mix of files that you created in the current release of 1-2-3 and files that use a file type associated with an earlier 1-2-3 release, you may lose data that is not supported in the earlier release. To avoid data loss, before you end the 1-2-3 session, save the files that use the earlier 1-2-3 file type and specify the file format for the current release of 1-2-3.

{button ,AL('H_ENDING_123_STEPS',1)} Go to procedure

Opening an existing workbook

1. Start 1-2-3.
2. In the Welcome to 1-2-3 dialog box, double-click the workbook file you want to open.
3. (Optional) If the file you want to open does not appear in the list, click Browse for More Workbooks.

{button ,AL('H_CREATING_A_BLANK_SPREADSHEET_STEPS;H_USING_SMARTMASTERS_STEPS;',0)} See
related topics

Creating a new workbook using a SmartMaster

A 1-2-3 SmartMaster is a template for business and financial tasks. Each SmartMaster gives you a head start for creating attractive, useful workbooks.

For quick results, you can enter your own data and use the built-in buttons to print or mail the data. You can also create your own SmartMaster.

1. Start 1-2-3.
2. In the Welcome to 1-2-3 dialog box, click the Create a New Workbook Using a SmartMaster tab.
1-2-3 lists SmartMaster files in the current SmartMaster directory. When you highlight a file, 1-2-3 displays a description.
3. (Optional) To browse through other directories to find a SmartMaster that is not on the list, click More SmartMaster Templates.
4. Double-click the SmartMaster you want to use.

{button ,AL('H_CREATING_A_BLANK_SPREADSHEET_STEPS;H_OPENING_AN_EXISTING_SPREADSHEET_STEPS;H_WORKING_WITH_SMARTMASTER_TEMPLATES_OVER;H_CREATING_AND_OPENING_FILES_OVER;H_CREATING_A_SMARTMASTER_TEMPLATE_STEPS';0)} [See related topics](#)

Overview: Welcome to 1-2-3

The 1-2-3 Welcome dialog box appears when you start 1-2-3. To begin working in 1-2-3, you can do one of the following:

- Open an existing workbook.
- Create a new workbook using a SmartMaster. SmartMaster templates contain calculations, formatting, and instructions to generate common business and financial forms.
- Create a blank workbook.

{button ,AL('H_CREATING_A_BLANK_SPREADSHEET_STEPS;H_LEARN123_TOUR_OVER;H_OPENING_AN_EXISTING_SPREADSHEET_STEPS;H_USING_SMARTMASTERS_STEPS;H_ENDING_123_STEPS',0)} See
related topics

Overview: Using 1-2-3 to analyze data

You can use 1-2-3 to analyze statistics over a period of time. Statistical analysis involves collecting, organizing, and interpreting numeric data. With 1-2-3, you can:

- Calculate a frequency distribution to find out how many values in a range fall within certain numeric intervals.
- Perform a regression analysis to determine whether one set of data has any correlation to another set of data.
- Invert and multiply matrixes to solve problems involving probabilities or multiple variables.
- Solve what-if problems that answer questions like "What would happen to my profits if my sales went up 30%?".

{button ,AL(`H_COMPUTING_A_FREQUENCY_DISTRIBUTION_STEPS;H_USING_DATA_MATRIXES_OVER;H_USING_REGRESSION_ANALYSIS_OVER;H_WHATIF_TABLES_AND_BACKSOLVING_OVER',0)} [See related topics](#)

Calculating a frequency distribution

You use a frequency distribution to find out how many values in a range fall within certain numeric intervals, called bins.

1. Enter the values for the values range.
2. Enter the values for the bin range in ascending order in one column. In each cell of the bin range, enter the upper limit for the bin.

Note Leave the column to the right of the bin range blank. 1-2-3 puts the results of the frequency distribution in this column and writes over any existing data.

3. Select the values range.
4. Choose Range - Analyze - Distribution.
5. Enter the bin range in the "Bin range" box, or use the range selector to specify the range.
6. Click OK.

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_DETAILS',1)} [See details](#)

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_EX',1)} [See example](#)

{button ,AL('H_ANALYZE_DATA_OVER;',0)} [See related topics](#)

Details: Calculating a frequency distribution

Setting up the bin range

The bin range contains the numeric intervals within which you want to distribute the values. The value in each cell in the bin range is the upper limit for that bin.

Follow these guidelines when you set up this range:

- Put the bin range in a single sheet.
- The intervals don't have to be equal.

Tip If you want to fill a range quickly with even intervals, you can use Range - Fill.

- The intervals must be in ascending order.
- Don't include text or blank cells in the bin range.

Setting up the values range

The values range contains the values you want to count. The values range can be in one or more sheets in a workbook file that's either active or on disk. 1-2-3 analyzes only the numeric data in the values range and ignores text and blank cells. The order of the data doesn't matter.

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_STEPS',1)} [Go to procedure](#)

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_EX',1)} [See example](#)

Example: Calculating a frequency distribution

A frequency distribution counts how many values in a range fall within certain numeric intervals. For example, you can use a frequency distribution to count how many of your monthly sales orders are less than or equal to \$3000, how many are greater than \$3000 and less than or equal to \$5000, and how many are greater than \$5000.

1-2-3 calculates the frequency distribution using the values range and the bin range.

- The values range contains the values you want to count.
- The bin range contains the numeric intervals within which you want to distribute the values.

1-2-3 puts the results of the frequency distribution in the column to the right of the bin range.

A	A	B	C	D	E
1		Howard's Fine Hats			
2		Berets	Boaters	Borsalinos	Bowlers
3	January	2,500.00	3,520.00	4,230.00	5,025.00
4	February	3,555.00	7,020.00	3,030.00	2,500.00
5	March	2,860.00	5,005.00	4,950.00	6,505.00
6					
7				3000	3
8				5000	5
9					4

Values range Bin range Frequency distribution

Interpreting the results

When you calculate a frequency distribution, the results show how many values are equal to or less than the bin value to the left. If no values fall within a bin, 1-2-3 enters 0 next to the bin.

A frequency distribution always produces one more value than the number of bins. 1-2-3 counts any values that are greater than the largest bin value and displays that number in the cell just below and to the right of the largest bin value.

In this example, there are:

- Three sales orders equal to or less than \$3000 (shown in cell E7).
- Five sales orders between \$3000 and \$5000 (shown in cell E8).
- Four sales orders greater than \$5000 (shown in cell E9).

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_STEPS',0)} [See related topics](#)

Overview: Using regression analysis

Regression analysis determines whether one set of data (one or more independent variables) has any relationship, or correlation, to another set of data (dependent variable). You can make predictions once you calculate these relationships. 1-2-3 performs multiple linear regression analysis, which predicts a value for a single dependent variable based on the values of one or more independent variables.

You collect data for a period of time or from multiple sites, so you can perform a regression analysis. You can predict future sales (dependent variable) based on the values specified for the key factors (independent variables) if the correlation between the key factors and sales is strong enough.

{button ,AL('H_SETTING_UP_A_REGRESSION_ANALYSIS_EX',1)} [See example](#)

{button ,AL('H_ANALYZE_DATA_OVER;H_PREDICTING_VALUES_STEPS;H_PERFORMING_A_REGRESSION_ANALYSIS_STEPS',0)} [See related topics](#)

Example: Setting up a regression analysis

Regression analysis determines whether one set of data (one or more independent variables) has any relationship to another set of data (dependent variable).

For example, suppose you run an ice cream stand at a tourist location, and you want to predict approximately how many quarts of ice cream you'll sell the next day. You think that your sales depend on three key factors (the independent variables): the number of hours of sunshine, the midday temperature, and the number of buses in a nearby parking lot. Since you're assuming that your sales depend on these values, sales is the dependent variable.

You collect data for a six-day period so you can perform a regression analysis. If the correlation between the three factors and sales is strong enough, you can predict future sales based on the values for the independent variables.

Setting up the ranges

To set up the data in the sheet correctly, you must:

- Enter the values for the independent variables (the x-range). The x-range can include from 1 to 75 independent variables. Put the values for each variable in a separate column. Each column must have the same number of rows as the dependent variable, and the columns for the independent variables must all be adjacent.
- Enter the values for the dependent variable (the y-range) in a single column. The y-range containing the values for the dependent variable must be in a single column and must contain the same number of rows as the x-range.
- Decide where you want 1-2-3 to put the results (the output range).

In this example, column B contains the y-range (ice cream sales). Columns C, D, and E contain the x-range (hours of sunshine, temperature, and number of buses).

A	A	B	C	D	E
1	Day	Ice Cream Sales	Sunshine	Temperature	Busses in Lot
2	1	250	3	84	10
3	2	545	5	91	7
4	3	550	5	89	8
5	4	450	6	85	10
6	5	605	6	90	11
7	6	615	7	88	9

Y-range contains dependent variable

X-range contains independent variables

{button ,AL('H_USING_REGRESSION_ANALYSIS_OVER;H_PERFORMING_A_REGRESSION_ANALYSIS_EX;H_PREDICTING_VALUES_EX;H_PERFORMING_A_REGRESSION_ANALYSIS_STEPS',0)} [See related topics](#)

Performing a regression analysis

You can perform a regression analysis to analyze the relationship between several variables.

1. Set up the data in the sheet.
2. Choose Range - Analyze - Regression.
3. In the "X-range" box, enter the range containing the values for the independent variables, or use the range selector to specify the range.
4. In the "Y-range" box, specify the range containing the values for the dependent variable.
5. In the "Output range" box, specify the range where you want 1-2-3 to display the results of the regression analysis.

You can specify either the entire range or the first cell in the range.

Caution 1-2-3 writes over existing data in the output range, including hidden columns and rows.

6. (Optional) Under Y-intercept, select an option.
7. (Optional) To clear the settings so you can enter different ranges, click Reset.
8. Click OK.
9. (Optional) Use the results to predict values.

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_DETAILS',1)} See details

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_EX',1)} See example

{button ,AL('H_USING_REGRESSION_ANALYSIS_OVER;',0)} See related topics

Details: Performing a regression analysis

Options: Regression dialog box

- X-range of values for the independent variables -- Enter the range that contains the independent variable(s). Each column in this range must contain the values of one independent variable. This box initially displays the currently selected range.
- Y-range of values for the dependent variable -- Enter the range that contains the dependent variable. This range must be a single column and must have the same number of rows as the x-range.
- Output range starting at cell -- Enter the range in which you want 1-2-3 to place the results of the regression analysis. You can enter the entire range or just the first cell in the range. If you select the entire range, it must be at least 9 rows wide and 4 columns deep; you may need to specify more columns, depending on the number of independent variables.
- Y-intercept -- Tell 1-2-3 what value to use for the y-intercept. Select "Compute" (the default) if you want 1-2-3 to calculate the y-axis intercept when performing the regression. Select "Set to zero" if you want 1-2-3 to use zero as the intercept.

Resetting the options to perform a new regression

Click Reset to clear the X-range, Y-range, and Output range settings, and reset the Y-intercept setting to "Compute" when performing the regression.

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_EX',1)} [See example](#)

Example: Performing a regression analysis

When you perform a regression analysis, 1-2-3 analyzes the relationship between the dependent variable and the independent variables and enters the results in the output range.

A	A	B	C	D	E
1	Day	Ice Cream Sales	Sunshine	Temperature	Busses in Lot
2	1	250	3	84	10
3	2	545	5	91	7
4	3	550	5	89	8
5	4	450	6	85	10
6	5	605	6	90	11
7	6	615	7	88	9

Y-range contains
dependent variable

X-range contains
independent variables

1-2-3 enters statistics in the output range, which tell you about the relationships between the data.

Point where regression line intercepts the y-axis		Number of rows of data	Number of observations minus number of independent variables minus 1
Standard error of estimated y-value			
R^2 value			
11	Regression Output:		
12	Constant	-2327.9095	
13	Std Err of Y Est	32.6714791	
14	R Squared	0.97722522	
15	No. of Observations	6	
16	Degrees of Freedom	2	
17			
18	X Coefficient(s)	61.177	28.4478809
19	Std Err of Coef.	12.1885	6.79391567
Standard error of each x coefficient			
Slope for each independent variable			

Note If 1-2-3 displays an R Squared value less than zero, you specified a zero intercept when it was not appropriate. Repeat the regression analysis, but select "Compute" under Y-intercept to recalculate the regression and adjust R Squared accordingly.

R Squared tells you how closely the independent and dependent variables are correlated, or how much variation in the dependent variable can be explained by the combination of the independent variables. The value of R Squared is between 0 and 1. The closer the R Squared value is to 1, the more closely the independent variables are related to the dependent variable. Since R Squared is close to 1 in this example, a strong correlation exists between ice cream sales, the weather, and the number of buses.

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_STEPS';0)} [See related topics](#)

Predicting values

Once you've proven through regression analysis that a relationship exists between dependent and independent variables, you can use the values for the independent variables to predict the values for the dependent variables.

1. Perform a regression analysis.
2. Enter the predicted value for each independent variable in the cell below the column of existing variables.
3. Enter text to identify the forecast.
4. Enter the appropriate formula in a blank cell in the dependent variable column.

Note When you use values from the regression output in formulas, select them when building the formula or copy them from the output range. Don't type them over or you may get undesired rounding errors.

The formula result is the predicted value for the dependent variable.

{button ,AL('H_PREDICTING_VALUES_EX',1)} See example

{button ,AL('H_PERFORMING_A_REGRESSION_ANALYSIS_STEPS;H_USING_REGRESSION_ANALYSIS_OVER
;',0)} See related topics

Example: Predicting values

Because you've performed a regression analysis, you know there is a relationship between the dependent value (the ice cream sales) and the independent variables (the hours of sunshine, the temperature, and the number of buses). Now, you can use these independent variables to predict tomorrow's sales.

Suppose the weather forecast says that tomorrow will be cloudy, with only two hours of sunshine and a midday temperature of 84 degrees Fahrenheit. You guess that no more than five buses will visit.

A	A	B	C	D	E
1	Day	Ice Cream Sales	Sunshine	Temperature	Busses in Lot
2	1	250	3	84	10
3	2	545	5	91	7
4	3	550	5	89	8
5	4	450	6	85	10
6	5	605	6	90	11
7	6	615	7	88	9
8	Forecast				
9		187.04467354	2	84	5
10					
11		Regression Output:			
12	Constant			-2327.9095	
13	Std Err of Y Est			32.6714791	
14	R Squared			0.97722522	
15	No. of Observations			6	
16	Degrees of Freedom			2	
17					
18	X Coefficient(s)		61.17698	28.4478809	0.595647194
19	Std Err of Coef.		12.18849	6.79391567	11.89658121

Predicted value for dependent variable Predicted values for independent variables

Constructing the formula

The formula you use for the dependent variable refers to the predicted values and the x coefficients in the output range of the example. The formula may look complicated, but it's really only the sum of the following items:

The first x value multiplied by the first x coefficient The second x value multiplied by the second x coefficient The third x value multiplied by the third x coefficient The constant (or y-axis intercept)

$$(C9 * \$C\$18) + (D9 * \$D\$18) + (E9 * \$E\$18) + \$D\$12$$

Note When you use values from the regression output in formulas, select them when building the formula or copy them from the output range. Don't type them over or you may get undesired rounding errors.

Interpreting the results

The results of the regression predict that you'll sell approximately 187 quarts of ice cream tomorrow (cell B9), if the weather and the number of buses are as forecasted.

{button ,AL('H_COMPUTING_A_FREQUENCY_DISTRIBUTION_EX;H_PERFORMING_A_REGRESSION_ANALYSIS_EX;H_SETTING_UP_A_REGRESSION_ANALYSIS_EX;H_PREDICTING_VALUES_STEPS',0)} [See related topics](#)

Overview: Using data matrixes

You can use matrix calculations to solve problems that involve several variables. A 1-2-3 matrix is a multiple-cell range that contains a value in each cell. The range can be in one sheet or across sheets (a 3D matrix). Each value represents the coefficient for a variable in a formula or a constant in a formula.

Matrix analysis finds the relationship between two or more sets of variables in one or more formulas. You use the relationships to determine which combination of values will produce the result you want for the formulas.

You can invert a matrix, multiply matrixes, or do both to analyze simultaneous equations. The matrixes can be in active files or on disk.

Inverting a matrix

You can invert a matrix only if it has the same number of rows as columns. When you invert a matrix, the new matrix will be the same size as the original.

Inverting a matrix is more involved than just inverting the numbers in the range. The new matrix is the approximate inverse of the original matrix; when you multiply a matrix by its inverse matrix, the result is the identity matrix of the same size. The identity matrix must be square, and includes 1 in the top left and bottom right cells; all other cells are zero (0).

Note Because the values may be rounded off, zero (0) may not appear in the appropriate cells. Round off these values to 15 decimal places to make the zero (0) appear.

A	A	B
1	Matrix	
2	1.00	2.00
3	1.50	1.75
4		
5	Inverse matrix	
6	-1.40	1.60
7	1.20	-0.80
8		
9	Identity matrix	
10	1.00	0.00
11	0.00	1.00

Note Some matrixes are mathematically impossible to invert. For some matrixes, especially large matrixes with many rows and columns, the matrix inversion algorithms would produce less accurate results. 1-2-3 will display a message if it cannot invert a matrix.

Multiplying matrixes

To multiply matrixes, the number of columns in the first matrix must equal the number of rows in the second matrix. The order in which you multiply the matrixes makes a difference to the results.

The resulting matrix will have the same number of rows as the first matrix and the same number of columns as the second matrix. The entry in the nth row and the xth column of the resulting matrix will be calculated from the entries in the nth row of the first matrix paired with the entries in the xth column of the second matrix.

First matrix				Second matrix			
A	A	B	C	D	E	F	G
1							
2	1	4		-3	-2	1	0
3	3	5		1	2	3	4
4	3	6					
5							
6				1	6	13	16
7				-4	4	18	20
8				-3	6	21	24

Results of multiplying data in the two matrixes. For example, the value in cell F7 (18) is the result of $(A3 * F2) + (B3 * F3)$.

Note Matrix multiplication algorithms by their nature propagate small errors. Multiplying an ill-converted matrix (a matrix that contains numbers differing greatly in magnitude) or a very large matrix may result in less accurate results.

{button ,AL('H_USING_DATA_MATRIXES_OVER_EX',1)} [See example](#)

{button ,AL('H_INVERTING_A_MATRIX_STEPS;H_MULTIPLYING_MATRIXES_STEPS;H_ANALYZE_DATA_OVER;',0)} [See related topics](#)

Example: Using data matrixes

Suppose a bank has three main sources of income: business accounts, house loans, and car loans. The bank also has a venture capital branch that takes money from the bank's total income to provide loans for start-up businesses.

By setting up this problem as a series of simultaneous equations, you can use matrix analysis to determine what percentage each income source contributes to the total venture funds. The following equation represents this relationship:

$$x\% * (\text{Business}) + y\% * (\text{House}) + z\% * (\text{Car}) = \text{Total venture funds}$$

x%, y%, and z% are the percentage contributions that each of the income sources makes to the total venture funds. These values are what you want to find.

Since you will need to invert the matrix of income sources, the matrix must have the same number of rows as columns. Therefore, you will need to use data from three years to solve this problem.

From the equation, you know that the matrix of income sources multiplied by the matrix of percentages equals the matrix of venture funds.

$$[\text{Income sources}] * [\text{Percentages}] = [\text{Venture funds}]$$

If you multiply the inverse of the income sources matrix by each side of the equation, the result is the matrix of percentages that you wanted to find.

$$[M]^{-1} * [M] * [P] = [M]^{-1} * [V]$$

$$[I] * [P] = [M]^{-1} * [V]$$

$$[P] = [M]^{-1} * [V]$$

where:

M = The income source matrix

P = The percentage matrix

I = The identity matrix

V = The venture funds matrix

Therefore, to solve this problem you need to set up the matrixes of income sources and venture funds, invert the matrix of income sources, and multiply the inverted matrix by the matrix of venture funds.

Set up the matrix of income values

First, set up a matrix of values for total income received from each of the three sources, and a corresponding column for the total venture funds received.

A	A	B	C	D	E	F	G
1	Total Income from Loans (thousands)						
2							
3		Business	House	Car		Total Venture Funds	
4	1995	\$10,994	\$48,760	\$22,451		\$24,300	
5	1996	\$12,321	\$46,650	\$26,434		\$24,800	
6	1997	\$11,546	\$45,732	\$21,540		\$23,600	

Matrix of income values

Invert the matrix

Next, invert the matrix of income sources in range B4..D6.

A	A	B	C	D	E	F	G
1	Total Income from Loans (thousands)						
2							
3		Business	House	Car		Total Venture Funds	
4	1995	\$10,994	\$48,760	\$22,451		\$24,300	
5	1996	\$12,321	\$46,650	\$26,434		\$24,800	
6	1997	\$11,546	\$45,732	\$21,540		\$23,600	
7							
8		-0.0007976	-0.0000921	0.00094437			
9		0.00015563	-0.0000876	-0.0000547			
10		0.00009711	0.00023535	-0.0003436			

Results of inverting the matrix

Multiply the matrixes

After inverting the matrix, you can find out what percentage each income source contributes to the total venture funds by multiplying the inverted matrix by the total venture funds received in each of those years. The resulting matrix contains the percentage contributions of each income source.

A	A	B	C	D	E	F	G
1	Total Income from Loans (thousands)						
2							
3		Business	House	Car		Total Venture Funds	
4	1995	\$10,994	\$48,760	\$22,451		\$24,300	
5	1996	\$12,321	\$46,650	\$26,434		\$24,800	
6	1997	\$11,546	\$45,732	\$21,540		\$23,600	
7							
8		-0.0007976	-0.0000921	0.00094437			
9		0.00015563	-0.0000876	-0.0000547			
10		0.00009711	0.00023535	-0.0003436			
11							
12	Business	62.11%					
13	House	31.82%					
14	Car	8.72%					

Results of multiplying
the venture funds by
the inverted matrix

Inverted income
source matrix
(first matrix)

Venture funds matrix
(second matrix)

Verifying the results

To verify these results, multiply the percentage matrix by the original income matrix. The venture funds matrix is the result. To predict future venture amounts, enter three new values for the income, and then multiply them by the percentage matrix.

{button ,AL('H_INVERTING_A_MATRIX_STEPS;H_MULTIPLYING_MATRIXES_STEPS;H_USING_DATA_MATRIXE
S_OVER;',0)} [See related topics](#)

Multiplying matrixes

You can multiply the columns of one matrix by the rows of a second matrix.

1. Select the range containing the first matrix you want to multiply.
2. Choose Range - Analyze - Multiply Matrix.
3. Enter the range containing the second matrix you want to multiply in the "Second matrix" box, or use the range selector to specify the range.

The number of columns in the first matrix must equal the number of rows in the second matrix. Each matrix can contain up to 80 columns and 80 rows.

4. Specify the range for the results in the "Resulting matrix" box.

Caution 1-2-3 writes over existing data in the range including data in hidden columns, rows, or sheets.

5. Click OK.

1-2-3 creates a matrix that contains the same number of rows as the first matrix and the same number of columns as the second matrix.

{button ,AL('H_MULTIPLYING_MATRIXES_DETAILS',1)} See details

{button ,AL('H_USING_DATA_MATRIXES_OVER_EX',1)} See example

{button ,AL('H_INVERTING_A_MATRIX_STEPS;H_USING_DATA_MATRIXES_OVER;',0)} See related topics

Details: Multiplying matrixes

You can multiply matrixes in any workbook file, whether it is active or on disk. When you specify the range where you want to put the results matrix, you can specify either the entire range or the first cell in the range.

Note Matrix multiplication algorithms by their nature propagate small errors. Multiplying an ill-converted matrix (a matrix that contains numbers differing greatly in magnitude) or a very large matrix may result in less accurate results.

Multiplying 3D matrixes

A 3D matrix includes the same cells in two or more contiguous sheets. When you multiply 3D matrixes, both matrixes must be 3D, and both must contain the same number of sheets. The matrixes can be in different sheets, or in different workbooks. The 3D results matrix can also be in different sheets or workbooks from the the matrixes you're multiplying.

1-2-3 multiplies the first and second matrixes in each sheet and enters the results in the resulting matrix range in that sheet. For example, 1-2-3 multiplies the range in the first sheet of the first matrix by the range in the first sheet of the second matrix and enters the results in the first sheet, multiplies the range in the second sheet of the first matrix by the range in the second sheet of the second matrix and enters the results in the second sheet, and so on.

{button ,AL('H_MULTIPLYING_MATRIXES_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_DATA_MATRIXES_OVER_EX',1)} [See example](#)

Inverting a matrix

You can use matrix inversion to solve problems involving probabilities or multiple variables.

1. Select the range containing the matrix you want to invert.

The range must have the same number of columns as rows, up to 80 columns and 80 rows.

2. Choose Range - Analyze - Invert Matrix.

3. Enter the range for the inverted matrix in the "To" box, or use the range selector to specify the range.

Caution 1-2-3 writes over existing data in the range including data in hidden columns, rows, or sheets.

4. Click OK.

{button ,AL('H_INVERTING_A_MATRIX_DETAILS',1)} See details

{button ,AL('H_USING_DATA_MATRIXES_OVER_EX',1)} See example

{button ,AL('H_MULTIPLYING_MATRIXES_STEPS;H_USING_DATA_MATRIXES_OVER;',0)} See related topics

Details: Inverting a matrix

You can invert matrixes in any workbook file, whether it is active or on disk. When you specify the range where you want to put the inverted matrix, you can specify either the entire range or just the first cell in the range.

Note Matrix inversion algorithms by their nature propagate small errors. Inverting an ill-converted matrix (a matrix that contains numbers differing greatly in magnitude) may result in large errors.

Inverting 3D matrixes

A 3D matrix includes the same cells in two or more contiguous sheets. When you invert a 3D matrix, the matrix you want to invert and the results range must be square on each sheet, and contain the same number of sheets.

1-2-3 inverts the matrix in each sheet of the 3D range and enters the results in each sheet. The matrixes must be in the same workbook but can be in different sheets. Also, the 3D results matrix must be in the same workbook as the matrixes you're inverting, but can be in different sheets.

For example, 1-2-3 inverts the matrix in the first sheet of the range and enters the results in the first sheet, inverts the matrix in the second sheet and enters the results in the second sheet, and so on.

{button ,AL('H_INVERTING_A_MATRIX_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_DATA_MATRIXES_OVER_EX',1)} [See example](#)

Overview: Alignment

The InfoBox makes it easy to change the alignment for both values and labels in cells or text blocks.

Horizontal and vertical alignment

By default, 1-2-3 aligns values in cells horizontally to the right and labels in cells horizontally to the left, and aligns both values and labels in cells vertically to the bottom. The illustrations below show examples of horizontal and vertical alignment.

Left-aligned	Totals
Centered	Totals
Right-aligned	Totals
Evenly spaced	T o t a l s

Top-aligned	Totals
Centered	Totals
Bottom-aligned	Totals

Wrapping text in a cell

Wrapping text in cells is useful when text is too long to fit in one cell.

This text needs to be wrapped.		
This text is wrapped in a cell.		

Aligning text across columns

You can center, right align, or evenly space text (or numbers entered as labels) across several columns. If column widths change, 1-2-3 automatically adjusts the alignment.

A	A	B	C	D
1	Yearly Totals			
2		1996	1997	1998
3	Dublin	392	573	655
4	London	458	619	834

For example, you can center Yearly Totals (cell A1)...

A	A	B	C	D
1		Yearly Totals		
2		1996	1997	1998
3	Dublin	392	573	655
4	London	458	619	834

across columns A through D.

Rotating data

You can rotate data in a cell or text block. For example, the numbers below are rotated 45 degrees.

A	A	B	C	D
1	Yearly Totals			
2		1997	1998	1999
3	Dublin	392	573	655
4	London	458	619	834

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNM
ENT_OVER;H_CHANGING_ALIGNMENT_STEPS;H_ROTATING_DATA_STEPS;H_SPANNING_TEXT_ACROSS
_COLUMNS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS','0)} [See related topics](#)

Aligning data in cells

You can align labels and values in cells.

1. Select the range or collection.
2. Choose Range - Range Properties.



3. Click the Alignment tab in the InfoBox.



4. Select a horizontal alignment.
5. Select a vertical alignment.
6. (Optional) Move, collapse, or close the InfoBox.

Note Data appears vertically aligned in a cell only when the row is taller than the cell contents.

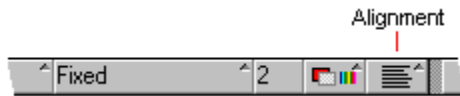
{button ,AL('H_ALIGNING_DATA_IN_CELLS_DETAILS',1)} See details

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNM
ENT_OVER;H_CHANGING_ALIGNMENT_STEPS;H_ROTATING_DATA_STEPS;H_SPANNING_TEXT_ACROSS
_COLUMNS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;H_STYLE_KEYS_OVER',0)} See related topics

Details: Aligning data in cells

Other ways to align data in cells

You can click the Alignment button in the status bar and select an alignment from a list of options.



You can also align data in cells using a label-prefix character. For more information see [Overview: Entering data.](#)

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

Related SmartIcons



Left-aligns labels; right-aligns values



Left-aligns data



Right-aligns data



Centers data



Evenly spaces text in a cell or text block



Centers text across columns

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS',1)} [Go to procedure](#)

Aligning data in text blocks

1. Click the [text block](#).
2. Choose Drawing - Drawing Properties.



3. Click the Alignment tab in the InfoBox.



4. Select a [horizontal alignment](#).
5. Select a [vertical alignment](#).
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_ALIGNING_DATA_IN_TEXT_BLOCKS_DETAILS',1)} [See details](#)

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNM
ENT_OVER;H_EDITING_DATA_IN_TEXT_BLOCKS_STEPS;',0)} [See related topics](#)

Details: Aligning data in text blocks

Other ways to align data in text blocks

You can click the Alignment button in the status bar and select an alignment from the list of options.



Troubleshooting

If the object or the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes to a locked object or workbook. To unlock the object, use Drawing - Drawing Properties (Basics tab). To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Left-aligns labels; right-aligns values



Left-aligns data



Right-aligns data



Centers data



Evenly spaces text in a cell or text block

{button ,AL('H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS',1)} [Go to procedure](#)

Spanning text across columns

You can align text across columns in a range.

1. Select the range that you want to align the text across.

The text you want to align must be in the leftmost cell of the range. For example, to align the text in cell A1 across A1..D1, select A1..D1.



2. Choose Range - Range Properties.



3. Click the Alignment tab in the InfoBox.



4. Select a horizontal alignment.

5. Select "Align across columns."



6. (Optional) Move, collapse, or close the InfoBox.

When you align text across columns, make sure the cells to the right of the label you want to align are blank.

{button ,AL('H_SPANNING_TEXT_ACROSS_COLUMNS_DETAILS',1)} [See details](#)

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNMENT_OVER;H_ROTATING_DATA_STEPS;H_WRA
PPING_DATA_IN_A_CELL_STEPS;',0)} [See related topics](#)

Details: Spanning text across columns

You can't align numbers across columns unless you enter the number as a label using a [label-prefix character](#).

Troubleshooting

If nothing happens when you select "Align across columns," check that all cells in the range in which you're aligning are [blank](#). Also check the horizontal alignment you selected. Aligning across columns has no effect on general alignment or left alignment since text by default is left-aligned.

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Left-aligns labels; right-aligns values



Left-aligns data



Right-aligns data



Centers data



Evenly spaces text in a cell or text block



Centers text across columns

{button ,AL('H_SPANNING_TEXT_ACROSS_COLUMNS_STEPS',1)} [Go to procedure](#)

Rotating data

When you rotate data in a cell, the row expands to fit the rotated data if the row height is set to "Fit largest font" on the Basics tab in the InfoBox.

1. Select the range or text block containing the data you want to rotate.
2. Right-click the selection and choose the Properties command.
3. Click the Alignment tab in the InfoBox.



4. Select an orientation.
To rotate text to a specified angle, select the last orientation choice and then click the arrows or enter a number in the "Angle" box.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_ROTATING_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNM
ENT_OVER;H_SPANNING_TEXT_ACROSS_COLUMNS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;',0
)} [See related topics](#)

Details: Rotating data

Printing rotated data

To print rotated data, both the printer and the printer driver must support rotation of installed fonts.

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Rotates data in a cell 45 degrees

{button ,AL('H_ROTATING_DATA_STEPS',1)} [Go to procedure](#)

Wrapping data in a cell

Wrapping text in cells is useful when text is too long to fit in one cell.



1. Select the range or collection.
2. Choose Range - Range Properties.



3. Click the Alignment tab in the InfoBox.



4. Select "Wrap text in cell."
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_WRAPPING_DATA_IN_A_CELL_DETAILS',1)} See details

{button ,AL('H_ALIGNING_DATA_IN_CELLS_STEPS;H_ALIGNING_DATA_IN_TEXT_BLOCKS_STEPS;H_ALIGNM
ENT_OVER;H_CHANGING_ALIGNMENT_STEPS;H_ROTATING_DATA_STEPS;H_SPANNING_TEXT_ACROSS
_COLUMNS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;',0)} See related topics

Details: Wrapping data in a cell

You can't wrap numbers in a cell.

Troubleshooting

1-2-3 adjusts row height to fit the wrapped text if the row height is set to "Fit largest font" on the Basics tab in the InfoBox.

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons

Left-aligns labels; right-aligns values



Left-aligns data



Right-aligns data



Centers data



Evenly spaces text in a cell or text block



Centers text across columns

{button ,AL('H_WRAPPING_DATA_IN_A_CELL_STEPS',1)} [Go to procedure](#)

Horizontal alignment

Changes the horizontal position of text and values. Click one of these buttons in the InfoBox:



Left-aligns text; right-aligns values



Left-aligns text and values



Centers text and values



Right-aligns text and values



Evenly spaces text in a cell or text block

Note These buttons also appear in the status bar.

Vertical alignment

Changes the vertical position of text and values. Click one of these buttons in the InfoBox:



Aligns text and values to the top



Aligns text and values to the center



Aligns text and values to the bottom

Overview: Changing borders, lines, and colors

Simple enhancements to sheet data can improve its effectiveness. You can add borders, lines, color, and designer frames to your sheet to emphasize important data.



Use the InfoBox or the status bar to style ranges and graphic objects.

Borders around ranges and graphic objects

You can add borders around cells and ranges. Borders are different than the grid lines that separate cells in the sheet. Graphic objects such as closed shapes, pictures, charts, maps, and text blocks also have borders. You can change the style and color of borders.

Designer frames

A designer frame is a special kind of border that you can add to cells, ranges, and any rectangular object except a button. The designer frame palette includes frames with drop shadows and beveled edges, which you can enhance with color.

Enhancing lines

Change the style, width, and color of lines, arcs, arrows, and freehand drawings to make them stand out. You can add arrowheads to the beginning, end, or both ends of a line.

Colors and patterns

You can change the color of lines and borders, and change the background color of ranges, charts, maps, text blocks, and closed shapes (such as circles and rectangles). Then you can add a pattern and a pattern color to the background. You can also fill the interior of an arc, polyline, or freehand drawing with a color and a pattern.

Named styles and the style gallery

Using [named styles](#), you can quickly apply the same styles to all the cells in a range or collection. You can redefine the named style to apply changes to all the cells using that named style.

Sales	Jan	Feb	Mar	Total
North	777	849	387	2013
South	452	749	375	1576
East	312	385	365	1062
West	488	835	49	1372
Total	2029	2818	1176	6023

Sales	Jan	Feb	Mar	Total
North	777	849	387	2013
South	452	749	375	1576
East	312	385	365	1062
West	488	835	49	1372
Total	\$3,029	\$2,818	\$1,176	\$6,023

You can also format ranges or collections with the style templates available in 1-2-3.

```
{button ,AL('H_CHANGING_INTERIOR_COLOR_AND_PATTERN_STEPS;H_CHANGING_LINE_STYLES_STEPS;  
H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;H_USING_DESIGNER_FRAMES_STEPS;H_NAMED_STYLES_OVER;H_USING_THE_STYLE_GALLERY_STEPS;',0)} See related topics
```

Changing interior colors and patterns

You can add or change interior colors and patterns in cells, ranges, sheets, and many graphic objects. You can't change the interior color or pattern of a bitmap picture or an embedded object.

1. Select what you want to change.
2. Right-click the selection and choose the Properties command.
3. Click the Lines & Colors tab in the InfoBox.



4. Under Interior, select a background color, a pattern, and a pattern color.
5. (Optional) Move, collapse, or close the InfoBox.

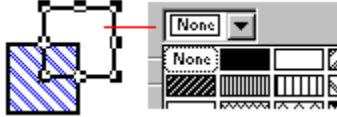
{button ,AL('H_CHANGING_INTERIOR_COLOR_AND_PATTERN_DETAILS',1)} [See details](#)

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;H_USING_DESIGNER_FRAMES_STEPS;H_NAMED_STYLES_OVER;H_USING_THE_STYLE_GALLERY_STEPS;',0)} [See related topics](#)

Details: Changing interior colors and patterns

Selecting pattern and color options

- Background color -- The color inside the range or graphic object behind any pattern.
- Pattern -- The fill pattern inside the range or graphic object. Choose from 64 fill patterns, including transparent.

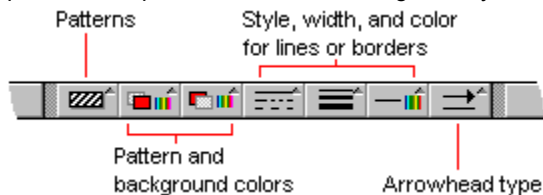


Note In chart parts, the background color has no effect until you select a pattern other than transparent or solid.

- Pattern color -- The color of the pattern in the range or graphic object. If the pattern is set to transparent or to the solid background color, you see no change if you select pattern colors.
- Text color -- The color of the text in the selected range. You can also change text color using the Text Format tab in the InfoBox.

Other ways to change interior colors

You can use the status bar to change background color, pattern, or pattern color. The options available in the status bar change depending on what's selected. For example, you can use the status bar to change the background color, pattern, and pattern color of a rectangle, but you can change only the background color of a range.



Displaying negative values in red

When a range is selected, select "Negative values in red" to display negative numbers in red, for example, to show a debit. You can set this option for the entire sheet by using Sheet - Sheet Properties (Lines & Colors tab).

Troubleshooting

If the object or the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes to a locked object or workbook. To unlock the object, use the Basics tab in the InfoBox for the object. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Opens the InfoBox and displays the Lines & Colors tab for ranges



Opens the InfoBox for drawings



Opens the InfoBox for charts



Opens the InfoBox for maps

Changing graphic object borders

You can change the border for a chart, map, picture, text block, or any closed shape.

1. Select the graphic object with the border you want to change.
2. Right-click the selection and choose the Properties command.
3. Click the Lines & Colors tab in the InfoBox.



4. Under Border, select a line color, line style, and line width.
5. (Optional) Move, collapse, or close the InfoBox.

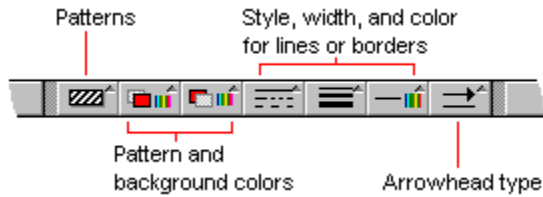
{button ,AL('H_CHANGING_GRAPHICS_BORDERS_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;H_USING_DESIGNER_FRAMES_STEPS;',0)} [See related topics](#)

Details: Changing graphic object borders

Other ways to change graphic object borders

You can also use the status bar to change the color, style, and width of graphic object borders.



Troubleshooting

If the object or the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes to a locked object or workbook. To unlock the object, use the Basics tab in the InfoBox for the object. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Opens the InfoBox and displays the Lines & Colors tab for ranges



Opens the InfoBox for drawings



Opens the InfoBox for charts



Opens the InfoBox for maps

{button ,AL('H_CHANGING_GRAPHICS_BORDERS_STEPS',1)} [Go to procedure](#)

Changing range borders

Change the border of a range to emphasize important data.

1. Select the range or collection.
2. Choose Range - Range Properties.



3. Click the Lines & Colors tab in the InfoBox.



4. Under Border, click the button that shows the border style you want.
5. Select a line style and color for the border.
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_CHANGING_RANGE_BORDERS_DETAILS',1)} [See details](#)

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;H_USING_DESIGNER_FRAMES_STEPS;',0)} [See related topics](#)

Details: Changing range borders

Troubleshooting

- If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).
- If no border appears, make sure the line style is not set to "none."

Related SmartIcons



Opens the InfoBox and displays the Lines & Colors tab for ranges



Adds a border around the selected cell or range



Adds a border and drop shadow to the selected cell or range

{button ,AL('H_CHANGING_RANGE_BORDERS_STEPS',1)} [Go to procedure](#)

Changing line styles

You can change line styles for any graphic object made from lines, such as an arrow, arc, or polyline.

1. Select the object.
2. Choose Drawing - Drawing Properties.



3. Click the Lines & Colors tab in the InfoBox.



4. Select a line color, style, and width.
5. (Optional) Select an arrowhead.
6. (Optional) Move, collapse, or close the InfoBox.

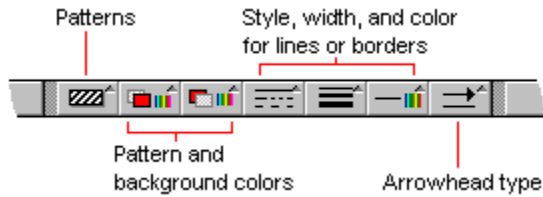
{button ,AL('H_CHANGING_LINE_STYLES_DETAILS',1)} [See details](#)

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_STEPS;H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;H_USING_DESIGNER_FRAMES_STEPS;',0)} [See related topics](#)

Details: Changing line styles

Other ways to change line styles

You can also use the status bar to change line style, width, color, and arrowheads.



Lines and arrowheads

You can add an arrowhead at the beginning of a line, the end of a line, or at both ends.

Troubleshooting

If the object or the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes to a locked object or workbook. To unlock the object, use Drawing - Drawing Properties (Basics tab). To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

{button ,AL('H_CHANGING_LINE_STYLES_STEPS',1)} [Go to procedure](#)

Adding designer frames

You can add a designer frame to a cell, a range, and any rectangular object except a button.

1. Select what you want to frame.
2. Right-click the selection and choose the Properties command.
3. Click the Lines & Colors tab in the InfoBox.



4. Select "Designer frame," then select a frame style and a frame color.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_USING_DESIGNER_FRAMES_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_BORDERS_LINES_AND_COLORS_OVER;H_CHANGING_LINE_STYLES_STEPS;H_CHANGING_GRAPHICS_BORDERS_STEPS;H_CHANGING_RANGE_BORDERS_STEPS;',0)} [See related topics](#)

Details: Adding designer frames

Troubleshooting

If the object or the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes to a locked object or workbook. To unlock the object, use the Basics tab in the InfoBox for the object. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Adds a border around the selected cell or range



Adds a border and drop shadow to the selected cell or range



Opens the InfoBox and displays the Lines & Colors tab for ranges



Opens the InfoBox for drawings



Opens the InfoBox for charts



Opens the InfoBox for maps

{button ,AL('H_USING_DESIGNER_FRAMES_STEPS',1)} [Go to procedure](#)

Using fast format to style a range

Fast format automatically copies the styles of the current range into other ranges you select.

1. Select the range containing the styles you want to copy.
2. Choose Range - Fast Format.



The mouse pointer changes to a paintbrush.



3. Select the ranges you want to format.
4. To turn off fast formatting, choose Range - Fast Format again, click the fast format icon, or press ESC.

{button ,AL('H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_DETAILS',1)} [See details](#)

{button ,AL('H_USING_THE_STYLE_GALLERY_STEPS;H_NAMED_STYLES_OVER;H_DELETING_A_NAMED_STYLE_STEPS;',0)} [See related topics](#)

Details: Using fast format to style a range

Other ways to turn off fast formatting

Fast formatting turns off when you press a key, click a status bar button or an InfoBox option, or click one of the SmartIcons.

Other ways to style a range

You can use the buttons in the status bar to change the styles of text or numbers.



Using named styles

Click the Named Style button in the status bar and choose from a list of your personal styles to quickly format a range of data.

Troubleshooting

If the worksheet is locked, fast format is not available. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Applies a named style



Opens the gallery of style templates



Clears styles from the current selection

{button ,AL('H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_STEPS',1)} [Go to procedure](#)

Overview: Named styles

A named style is a collection of styles that you can copy from a single cell and apply to other ranges. A named style can include number format, font, point size, bold, italics, underlining, borders, colors, pattern, and alignment.

Create named styles when you want to reuse styles that you frequently apply to data. The named styles that you create appear on the status bar.



Using named styles, you can quickly apply the same styles to all the cells in a range or collection. You can redefine the named style to apply changes to all the cells using that named style.

Style gallery

You can also choose from a selection of style templates available in the style gallery. For more information, see [Using style templates](#).



{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS;H_CREATING_A_NAMED_STYLE_STEPS;H_DELETING_A_NAMED_STYLE_STEPS;H_REDEFINING_A_NAMED_STYLE_STEPS;H_REMOVING_A_NAMED_STYLE_STEPS;H_RENAMING_A_NAMED_STYLE_STEPS;H_RESETTING_A_NAMED_STYLE_STEPS;','0)} [See related topics](#)

Applying a named style

1. Select the range or collection you want to style.
2. Choose Range - Range Properties.



3. Click the Named Style tab in the InfoBox.



4. Select a named style from the "Style name" list.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_APPLYING_A_NAMED_STYLE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_REMOVING_A_NAMED_STYLE_STEPS;H_RESETTING_A_NAMED_STYLE_STEPS;H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_STEPS;',0)} [See related topics](#)

Details: Applying a named style

Other ways to apply a named style

Click the Named Style button on the status bar to see a list of current named styles in the sheet. Click the named style to apply it to the current selection. If no named styles have been defined, "No style" appears by itself in the list.



The Named Style button displays the name of the style applied to the current selection. "No style" means the current selection isn't formatted with a named style.

Note The Named Style button does not appear on the status bar if the display area on your desktop is 640X480 resolution.

Copying named styles

You can copy a named style from one workbook to another by selecting an example cell and choosing Edit - Copy and Edit - Paste.

Overriding a named style

Once a named style has been applied to a cell, you can still change the individual properties of the cell without breaking the link to that named style. If you redefine the named style, 1-2-3 changes only the properties you didn't override. You can click Reset to Style to change the cell's styles back to the original named style.

Troubleshooting

The named style is not automatically applied to the example cell that defines it, so remember to include the example cell in the range you want to style.

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Applies a named style



Resets the selection to the current named style



Redefines a named style based on the selected cell



Creates a named style based on the selected cell



Copies a range's styles to another range



Opens the gallery of style templates

{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_REDEFINING_A_NAMED_STYLE_STEPS',0)} [See related topics](#)

Creating a named style

You create a named style based on an example cell. 1-2-3 saves named styles with the workbook. Named style names can be up to 64 characters long and must be unique in the workbook.

1. Click the cell that has the styles you want to define as a named style.
2. Choose Range - Range Properties.



3. Select the Named Style tab in the InfoBox.



4. Click Create Style.
5. Enter a name for the new named style in the "Style name" box.
6. Click OK.
7. (Optional) Move, collapse, or close the InfoBox.

Note The named style is not automatically applied to the example cell that defines it. Remember to apply the style to the example cell.

{button ,AL('H_CREATING_A_NAMED_STYLE_DETAILS',1)} See details

{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS;H_DELETING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_RENAMING_A_NAMED_STYLE_STEPS;',0)} See related topics

Details: Creating a named style

Creating a named style with a range selected

A named style is based on a single cell. If you select a range, then 1-2-3 uses the styles of the top left cell of the range to create the named style.

To copy the styles of a range, use Range - Fast Format. To see a gallery of style templates for ranges, choose Range - Range Properties and click Style Gallery on the Named Style tab in the InfoBox.

Named styles and sheet defaults

A named style can contain a sheet default. If you change the sheet default, the named style changes to use the new sheet default. For example, you create a named style based on a cell using the sheet default background color. If you later change the sheet default background color to yellow, the named style changes to use the default background color (yellow). All cells using that named style then change to a yellow background color.

If you don't want your named style to use the sheet defaults, use Range - Range Properties to style the cell with a local setting before you create the named style. For information on sheet defaults, see [Overview: Sheet defaults](#).

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Creates a named style based on the selected cell



Applies a named style



Redefines a named style based on the selected cell



Resets the selection to the current named style



Copies a range's styles to another range



Opens the gallery of style templates

{button ,AL('H_CREATING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_STEPS',0)} [See related topics](#)

Renaming a named style

You can change style names at any time to more accurately describe what the named style is being used for. Names for named styles must be unique in the workbook.

1. Choose Range - Range Properties.



2. Click the Named Style tab in the InfoBox.



3. Click Manage Styles.
4. Select the named style you want to rename from the "Style name" list.
5. Click Rename.
6. Enter the new name in the "To" box and click OK.
7. Click Done.
8. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_RENAMING_A_NAMED_STYLE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_NAMED_STYLE_STEPS;H_DELETING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_RESETTING_A_NAMED_STYLE_STEPS;H APPLYING_A_NAMED_STYLE_STEPS;',0)} [See related topics](#)

Details: Renaming a named style

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

Related SmartIcons



Displays the Manage Styles dialog box



Resets the selection to the current named style



Redefines a named style based on the selected cell



Creates a named style based on the selected cell

{button ,AL('H_RENAMING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

Redefining a named style

You redefine a named style using an example cell. When you redefine a named style, all the cells using the named style change to the new styles.

1. Click the cell that has the styles you want to use to redefine the named style.
2. Choose Range - Range Properties.



3. Click the Named Style tab in the InfoBox.



4. Click Redefine Style.
5. Select the named style you want to redefine.
6. Click OK.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_REDEFINING_A_NAMED_STYLE_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REMOVING_A_NAMED_STYLE_STEPS;H_RENAMING_A_NAMED_STYLE_STEPS;H_RESETTING_A_NAMED_STYLE_STEPS;H_APPLYING_A_NAMED_STYLE_STEPS','0')} [See related topics](#)

Details: Redefining a named style

Overriding a named style

Once a named style has been applied to a cell, you can still change the individual properties of the cell without breaking the link to that named style. If you redefine the named style, 1-2-3 changes only the properties you didn't override. You can click Reset to Style to change the cell's styles back to the original named style.

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Redefines a named style based on the selected cell



Resets the selection to the current named style



Creates a named style based on the selected cell



Applies a named style

{button ,AL('H_REDEFINING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

Resetting a cell's styles to a named style

If you applied a named style to a cell and then changed the cell's styles, you can reset the cell back to the named style.

1. Select the range or collection that has the styles you want to reset.
2. Choose Range - Range Properties.



3. Click the Named Style tab in the InfoBox.



4. Click Reset to Style.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_RESETTING_A_NAMED_STYLE_DETAILS',1)} See details

{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS;H_CREATING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_REMOVING_A_NAMED_STYLE_STEPS;',0)} See related topics

Details: Resetting a cell's styles to a named style

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

Related SmartIcons



Resets the selection to the current named style



Clears all styles, including number formats, from the current selection



Creates a named style based on the selected cell



Applies a named style



Redefines a named style based on the selected cell

{button ,AL('H_RESETTING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

Removing a named style from cells

Removing a named style from a cell removes the styles associated with the named style, but leaves any changes you made after applying the named style.

1. Select the range or collection from which you want to remove the named style.
2. Choose Range - Range Properties.



3. Click the Named Style tab in the InfoBox.



4. Select "No style" from the "Style name" list.
5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_REMOVING_A_NAMED_STYLE_DETAILS',1)} See details

{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS;H_DELETING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_RESETTING_A_NAMED_STYLE_STEPS;',0)} See related topics

Details: Removing a named style from cells

Other ways to remove named styles

- Click the Named Style button in the status bar and select "No style."
- Choose Edit - Clear Styles, which will remove all styles, not just the styles associated with the named style.

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Clears all styles, including number formats, from the current selection



Redefines a named style based on the selected cell



Resets the selection to the current named style

{button ,AL(`H_REMOVING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

Deleting a named style

When you delete a named style, the cells formatted with that named style retain the styles, but are no longer linked to the named style.

1. Choose Range - Range Properties.



2. Click the Named Style tab in the InfoBox.



3. Click Manage Styles.
4. From the "Style name" list, select the style you want to delete.
5. Click Delete.
6. Click Done.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_DELETING_A_NAMED_STYLE_DETAILS';1)} [See details](#)

{button ,AL('H_CREATING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_REDEFINING_A_NAMED_STYLE_STEPS;H_RENAMING_A_NAMED_STYLE_STEPS';0)} [See related topics](#)

Details: Deleting a named style

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

Related SmartIcons



Displays the Manage Styles dialog box



Clears all styles, including number formats, from the current selection



Redefines a named style based on the selected cell

{button ,AL('H_DELETING_A_NAMED_STYLE_STEPS',1)} [Go to procedure](#)

Using style templates

You can quickly format ranges or collections with the style templates available in 1-2-3.

1. Select the range you want to format.
2. Choose Range - Range Properties.



3. Click the Named Style tab in the InfoBox.



4. Click Style Gallery.
5. Select the template you want to use from the "Style templates" list.
6. Click OK.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_USING_THE_STYLE_GALLERY_DETAILS',1)} See details

{button ,AL('H_APPLYING_A_NAMED_STYLE_STEPS;H_CREATING_A_NAMED_STYLE_STEPS;H_NAMED_STYLES_OVER;H_USING_FAST_FORMAT_TO_STYLE_A_RANGE_STEPS;',0)} See related topics

Details: Using style templates

Troubleshooting

If the workbook is locked, the style options in the InfoBox are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data.](#)

Related SmartIcons



Opens the gallery of style templates



Copies a range's styles to another range



Pastes a cell's styles



Creates a named style based on the selected cell



Applies a named style

{button ,AL('H_USING_THE_STYLE_GALLERY_STEPS',1)} [Go to procedure](#)

Manage Styles dialog box for named styles

Use this dialog box to rename or delete named styles.

Choose a task

[Renaming a named style](#)

[Deleting a named style](#)

{button ,AL('H_NAMED_STYLES_OVER','0)} [See related topics](#)

Overview: Number formats

You can change the appearance of numbers by changing number formats. Number formats differentiate one kind of data from another; for example, currency from percentages. Number formats affect only how 1-2-3 displays numbers, not how 1-2-3 stores or calculates with numbers.

You can change the number format for an entire sheet (the sheet default) or for a selected range or collection. The initial default number format for sheets is General. Use Sheet - Sheet Properties (Number Format tab) to change the default number format. Use Range - Range Properties (Number Format tab) to format numbers in a range or collection.

Categories of number formats

Number formats are grouped into the categories described below.

Frequently Used

Initially, the Frequently Used category contains several common formats. You can add or delete formats from the list.

Number formats in this category appear on the Frequently Used list in the status bar, and are automatically recognized by 1-2-3 when you enter them.

Number

The Number category contains these formats:

- General format -- Displays up to 15 decimal places, a minus sign for negatives, no thousands separators, and no trailing zeros to the right of the decimal point. General format is the initial default number format.
Note If you enter a large decimal number in General format, 1-2-3 either rounds the number to fit the column width, displays scientific notation, or displays *** (asterisks) until you widen the column.
- Fixed format -- Displays up to 15 decimal places, a minus sign for negatives, and a leading zero for decimal values.
- Comma format -- Displays thousands separators and up to 15 decimal places, and parentheses for negative numbers. Comma format is the same as currency format without the currency symbol. You can change the negative number indicator from minus sign to parentheses using the regional or country settings for negative numbers in the operating system's control panel.
- Scientific format -- Displays scientific (exponential) notation, with up to 15 decimal places and an exponent of up to 3 digits.
- Percent format -- Displays numbers as percentages (the number multiplied by 100) with a percent sign and up to 15 decimal places.

The table below shows the same number formatted in different ways.

<u>Format name</u>	<u>1234.567 appears as</u>
General	1234.567
Fixed	1234.57
Comma	1,234.57
Scientific	1.23E+003
Percent	123456.70%

Currency

Displays numbers with a currency symbol, thousands separators, and up to 15 decimal places. You can format different cells in the same workbook as different types of currency. For example, you can format one cell as US dollar and another cell as French franc. You can change the negative number indicator from minus sign to parentheses using the regional or country settings for negative numbers in the operating system's control panel.

ISO Currency

Displays numbers with the International Standards Organization (ISO) code, thousands separators, and up to 15 decimal places. For example, the ISO code for \$ (US dollar sign) is USD. See [Details: Changing the currency symbol](#) for the table of ISO currency formats.

Date

Displays a [date number](#) as a date. If a number falls outside the range of date numbers, 1-2-3 displays *** (asterisks) in the cell. See [Details: Entering dates](#) for the table of date formats.

Time

Displays a time number as a time. If a number falls outside the range of time numbers, 1-2-3 displays 12:00 AM or 00:00 in the cell. See Details: Entering times for the table of time formats.

Note 1-2-3 will display any whole integer as 12:00 AM in Time format since Time format is derived from a fraction or decimal.

Text

- Label format -- Displays existing numbers with no thousands separators, and a minus sign for negative numbers. New entries in Label format display as text, compute to the value 0 (zero), and automatically use a label-prefix character that corresponds to the alignment set with Sheet - Sheet Properties.

Note 1-2-3 lets you compute with numbers that you have changed to label format before you edit them. After you edit a number in Label format, 1-2-3 enters a label-prefix character in the cell and the cell computes to the value 0 (zero).

- Formula format -- Displays formulas written out, rather than as their computed values. This is useful for debugging or printing formulas.

{button ,AL('H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS;H_SETTING_123_PREFERENCES_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;H_FORMATTING_NUMBERS_STEPS;H_CHANGING_THE_CURRENCY_SYMBOL_STEPS;',0)) See related topics

Formatting numbers

Changing the number format affects only how 1-2-3 displays numbers, not how 1-2-3 stores or calculates with numbers.

1. Select the numbers you want to format.
2. Choose Range - Range Properties.



3. Click the Number Format tab in the InfoBox.



4. Select a format category.
5. Select a format from the "Current format" list.
Tip To add the number format to the status bar, select "Show in Frequently Used list."
6. (Optional) To reset the current selection to the sheet default, click Reset to Sheet Format.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_FORMATTING_NUMBERS_DETAILS',1)} [See details](#)

{button ,AL('H_NUMBER_FORMATS_OVER;H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS;H_SETTING_123_PREFERENCES_STEPS;H_SETTING_A_DEFAULT_NUMBER_FORMAT_STEPS;H_LC_CHANGING_NUMERIC_FORMATS_STEPS;',0)} [See related topics](#)

Details: Formatting numbers

Other ways to format numbers

You can use the status bar to format numbers in cells. Click the Number format button to display the Frequently Used list of number formats. Only the formats included in the Frequently Used category on the Number format tab in the InfoBox are available from the status bar.



Automatic formatting

1-2-3 automatically formats a number if you enter it using a time format, a percent sign, or one of the formats in the Frequently Used category. For example,

- If you enter 12:31:57, 1-2-3 automatically assigns a time format (23:59:59) to that cell.
- If you enter 12/31/57, 1-2-3 automatically assigns a date format (12/31/96) to that cell.
- If you enter a number that is not a recognized date, time, or other format, 1-2-3 enters the number using the default format (initially, General format).

Displaying parentheses

Selecting "Parentheses" on the Number Format tab encloses both positive and negative numbers in parentheses, except numbers formatted as dates, times, or text. You can also set this option for the entire sheet by using Sheet - Sheet Properties.

Negative number defaults for Comma and Currency formats

For both Comma and Currency number formats, 1-2-3 displays negative numbers using either parentheses or a minus sign based on operating system default settings.

Displaying negative values in red

You can display negative values in red, for example, to show a debit. To display negative values in red for a selected range, use Range - Range Properties (Lines & Color tab). You can also set this option for the entire sheet by using Sheet - Sheet Properties.

The effect of column width on numbers

If you format a number and 1-2-3 fills the cell with *** (asterisks), the column is not wide enough to display the number using the format you selected.

If you enter a number in General format, but 1-2-3 displays the number in Scientific format, the number is too large to display in the column. To display the number, widen the column to at least one character wider than the width of the formatted number.

If 1-2-3 still displays *** (asterisks) after you widen the column, the value is invalid, for example, a date greater than 12-31-9999.

Numbers and the year 2000

1-2-3 is year 2000 ready. You can now enter dates with either a 2-digit (for example, 4/2/15) or 4-digit year (for example, 4/2/2015). For more information, see [1-2-3 and the year 2000](#). You can also control how 1-2-3 stores and displays a date. For information, see [Setting options for dates](#).

Tip If you enter the year as 4 digits, you may need to widen the columns that contain dates.

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Formats values as a percent with two decimal places



Formats values with the thousands separator and no decimal places



Formats values with the default currency format

{button ,AL('H_FORMATTING_NUMBERS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROMOTING_A_NUMBER_FORMAT_STEPS;H_CHANGING_INTERNATIONAL_SETTINGS_STEP
S;H_SIZING_COLUMNS_STEPS',';0)} [See related topics](#)

Formatting numbers as currency

Changing the number format affects only how 1-2-3 displays numbers, not how 1-2-3 stores or calculates with numbers.

1. Select the numbers you want to format.
2. Choose Range - Range Properties.



3. Click the Number Format tab in the InfoBox.



4. Select "Currency" or "ISO Currency" from the "Category" list.
5. Select a currency format from the "Current format" list.
Tip To promote the number format to the status bar, click "Show in Frequently Used list."
6. (Optional) To reset the current selection to the sheet default, click "Reset to Sheet Format."
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_FORMATTING_NUMBERS_AS_CURRENCY_DETAILS',1)} [See details](#)

{button ,AL('H_NUMBER_FORMATS_OVER;H_CHANGING_THE_CURRENCY_SYMBOL_STEPS;H_FORMATTING_NUMBERS_STEPS;',0)} [See related topics](#)

Details: Formatting numbers as currency

Other ways to format numbers as currency

You can also use the status bar to change currency formats quickly. Click the Number format button to display the Frequently Used list of number formats. Only the formats included in the Frequently Used category on the Number Format tab in the InfoBox are available from the status bar.



Automatic formatting of currencies

1-2-3 automatically formats data as currency when you enter it if you use one of the currency formats in the Frequently Used category. For example, if French franc is on the Frequently Used list, and you enter 254.70 F, 1-2-3 automatically assigns the French franc currency format (with two decimal places) to that cell.

Displaying negative values in red

You can display negative values in red, for example, to show a debit. To display negative values in red for a selected range, use Range - Range Properties (Lines & Color tab). You can also set this option for the entire sheet by using Sheet - Sheet Properties.

Negative number defaults for Comma and Currency formats

For both Comma and Currency number formats, 1-2-3 uses either parentheses or minus sign defaults based on default negative number settings from the Windows control panel.

The effect of column width on numbers

If you format a number and 1-2-3 fills the cell with *** (asterisks), the column is not wide enough to display the number using the format you selected. To display the number, widen the column to at least one character wider than the width of the formatted number. If 1-2-3 still displays *** (asterisks) after you widen the column, the value is invalid.

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Related SmartIcons



Formats values with the default currency format



Formats values with the US dollar currency symbol, the default thousands separator, and two decimal places



Formats values with the British pound currency symbol, the default thousands separator, and two decimal places



Formats values with the Japanese yen currency symbol, the default thousands separator, and zero decimal places

{button ,AL('H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SIZING_COLUMNS_STEPS;H_Promoting_a_number_format_steps;H_CHANGING_INTERNATIONAL_SETTINGS_STEPS;',0)} [See related topics](#)

Adding a number format to the Frequently Used list

You can add any number format you use often to a list of frequently used formats.

1. Select an example cell that has the format you want to add to the status bar.
2. Choose Range - Range Properties.



3. Click the Number Format tab in the InfoBox.



4. Select "Show in Frequently Used list."

In addition to displaying in the Frequently Used list, the format you selected now appears when you click the Number format button in the status bar.



5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_PROMOTING_A_NUMBER_FORMAT_DETAILS',1)} [See details](#)

{button ,AL('H_NUMBER_FORMATS_OVER;H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS;H_FORMATTING_NUMBERS_STEPS','0')} [See related topics](#)

Details: Adding a number format to the Frequently Used list

Removing formats from the Frequently Used list

To remove a number format from the Frequently Used list, use the Number Format tab in the InfoBox. Select the "Frequently Used" category, select the formats you want to remove, and then deselect "Show in Frequently Used list."

The format of the current selection does not change, but the InfoBox changes to show that number format in its original category, and removes the format from the status bar.

Troubleshooting

If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

{button ,AL('H_PROMOTING_A_NUMBER_FORMAT_STEPS',1)} [Go to procedure](#)

Changing the currency symbol

You can change the symbol or International Standards Organization (ISO) code for a selected currency, and the position of the symbol or code.

1. Choose Range - Range Properties or Sheet - Sheet Properties.
2. Select "Currency" or "ISO Currency" from the "Category" list.
3. In the "Current format" list, select the currency whose symbol or ISO code you want to change.
4. Click Currency Options.
5. Enter the symbol or code in the "Symbol" box.
6. (Optional) Select a position for the currency symbol or code.
7. Click OK.

{button ,AL('H_CHANGING_THE_CURRENCY_SYMBOL_DETAILS',1)} [See details](#)

{button ,AL('H_NUMBER_FORMATS_OVER;H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS;H_FORMATTING_NUMBERS_STEPS;',0)} [See related topics](#)

Details: Changing the currency symbol

Entering the currency symbol

To enter a symbol character that you cannot type directly from your keyboard, you can use a compose sequence starting with ALT+F1 (COMPOSE). For example, to enter the character £ (British pound sterling symbol), press ALT+F1 (COMPOSE) and type L=. You can also copy the currency symbol from the Windows Character Map.

Changes to the currency symbol

These changes affect current and future sessions of 1-2-3 and are stored as default settings. They are specific to your copy of 1-2-3 and are not transferred when you give a workbook to someone else.

Note You cannot enter a symbol or code that is already being used for another currency. Also, if you leave the "Symbol" box blank, the symbol for the selected currency reverts to the system default.

Table of currency symbols

The table below shows the number 1234.56 displayed as regular and ISO currencies:

<u>Currency name</u>	<u>Regular currency</u>	<u>ISO currency</u>
Argentinean Peso	A1,234.56	ARS 1,234.56
Australian Dollar	A\$1,234.56	AUD 1,234.56
Austrian Schilling	1,234.56 ÖS	ATS 1,234.56
Belgian Franc	1,234.56 BF	BEF 1,234.56
Brazilian Real	R\$ 1,234.56	BRL 1,234.56
British Pound	£1,234.56	GBP 1,234.56
Canadian Dollar	C\$1,234.56	CAD 1,234.56
Chinese Yuan	PRC¥1,234.56	CNY 1,234.56
Czech Koruna	1,234.56 Kc	CZK 1,234.56
Danish Krone	Dkr 1,234.56	DKK 1,234.56
ECU	1,234.56 ECU	XEU 1,234.56
Euro	1,234.56 euro	EUR 1,234.56
Finnish Markka	1,234.56 mk	FIM 1,234.56
French Franc	1,234.56 F	FRF 1,234.56
German Mark	1,234.56 DM	DEM 1,234.56
Greek Drachma	1,234.56 Dr	GRD 1,234.56
Hong Kong Dollar	HK\$1,234.56	HKD 1,234.56
Hungarian Forint	1,234.56 Ft	HUF 1,234.56
Indian Rupee	Rs 1,234.56	INR 1,234.56
Indonesian Rupiah	Rp 1,234.56	IDR 1,234.56
Irish Punt	IR£1,234.56	IEP 1,234.56
Italian Lira	L. 1,234.56	ITL 1,234.56
Japanese Yen	¥1,234.56	JPY 1,234.56
Luxembourg Franc	1,234.56 LF	LUF 1,234.56
Malaysian Ringgit	Rm 1,234.56	MYR 1,234.56
Mexican Peso	N\$1,234.56	MXN 1,234.56
Netherlands Guilder	F 1,234.56	NLG 1,234.56
New Zealand Dollar	NZ\$1,234.56	NZD 1,234.56
Norwegian Krone	Nkr 1,234.56	NOK 1,234.56
Polish Zloty	1,234.56 Zl	PLN 1,234.56
Portuguese Escudo	1,234.56 Esc.	PTE 1,234.56
Romanian Leu	1,234.56 Lei	ROL 1,234.56
Russian Ruble	1,234.56 R	SUR 1,234.56

Singapore Dollar	S\$1,234.56	SGD 1,234.56
Slovakian Koruna	1,234.56 Sk	SKK 1,234.56
Slovenian Tolar	SIT 1,234.56	SIT 1,234.56
South African Rand	R1,234.56	ZAR 1,234.56
South Korean Won	W1,234.56	KRW 1,234.56
Spanish Peseta	1,234.56 Pts	ESP 1,234.56
Swedish Krona	1,234.56 Skr	SEK 1,234.56
Swiss Franc	SFr 1,234.56	CHF 1,234.56
Taiwan Dollar	NT\$1,234.56	TWD 1,234.56
Thai Baht	1,234.56 Bt	THB 1,234.56
US Dollar	\$1,234.56	USD 1,234.56
Other Country	OTH 1,234.56	OTH 1,234.56

{button ,AL('H_CHANGING_THE_CURRENCY_SYMBOL_STEPS',1)} [Go to procedure](#)

{button ,AL('H_FORMATTING_NUMBERS_AS_CURRENCY_STEPS;H_FORMATTING_NUMBERS_STEPS;H_NUMBER_FORMATS_OVER;H_ENTERING_NUMBERS_STEPS;',0)} [See related topics](#)

Changing text styles

Use the [InfoBox](#) to style labels and values in ranges, and text in graphic objects.

1. [Select](#) the range or graphic object containing the text.
2. Right-click the selection, and choose the Properties command.
3. Click the Text Format tab in the InfoBox.



4. Select a font, point size, color, and attribute(s).
5. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_CHANGING_TEXT_FORMAT_DETAILS',1)} [See details](#)

{button ,AL('H_REMOVING_FORMATTING_FROM_TEXT_STEPS;H_NAMED_STYLES_OVER;H_STYLE_KEYS_OVER',0)} [See related topics](#)

Details: Changing text styles

Other ways to style text

You can also style text by using the buttons in the status bar. Click the button and select from a list of options.



Troubleshooting

- If the font name in the status bar is red, it means the font is not installed on your computer. 1-2-3 substitutes a similar font in its place.
- If the workbook is locked, the style options in the InfoBox and status bar are dimmed. You can't make style changes in a locked workbook. To unlock the workbook, use File - Workbook Properties (Security tab). For more information, see [Overview: Protecting data](#).

Styling text blocks

Changes you make to text blocks affect all the text in the text block. You can't style individual characters.

Removing attributes from text

To remove bold, italic, strikethrough, and all underlining from the selection, click the Text Format tab in the InfoBox and select "Normal" from the "Attributes" list; or click the icon shown below.



Related SmartIcons



Adds bold to data in a selection



Adds italics to data in a selection



Adds underlining to data in a selection



Adds double underlining to data in a selection



Changes the font, color, and attributes of data in ranges



Changes the font, color, and attributes of text in text blocks

{button ,AL('H_CHANGING_TEXT_FORMAT_STEPS',1)} [Go to procedure](#)

{button ,AL('H_USING_THE_STATUS_BAR_OVER;',0)} [See related topics](#)

Overview: Differences between TeamMail and TeamReview

TeamMail and TeamReview share the same distribution and routing feature, which uses your e-mail system.

With either TeamMail or TeamReview, you can send workbook data and a message to other 1-2-3 users in your workgroup, collect their input, and have their changes and additions returned to you automatically. However, TeamMail and TeamReview have different uses.

When to use TeamMail

Use TeamMail when you want to:

- Send a workbook and a message, or just a message, to a group.
- Send all objects in a workbook (including Web tables, datalink tables, query tables, drawings, charts, and maps), and maintain versions, styles, settings, and other workbook properties.
- Let recipients add data to the workbook. To merge the changes into your original workbook, you can use Edit - Cut and Edit - Paste or File - TeamConsolidate - Merge Versions.

When to use TeamReview

Use TeamReview when you want to:

- Send a message with a range of data that others can edit. 1-2-3 stores the range of data in a new workbook called the routed workbook.

Before you send the routed workbook to recipients, you can copy and paste graphic objects such as charts, maps, Web tables, query tables, and datalink tables to the routed workbook. You can also add versions in the routed workbook before sending, and recipients can create versions along the route.

- Gather data from individuals and then automatically merge the returned data, including versions, into the original range.

When you receive the routed range back from recipients, click the Merge button. You can specify whether 1-2-3 writes over the original data or creates versions automatically based on the data you receive.

{button ,AL('H_TEAMMAIL123_OVER;H_TEAMREVIEW_OVER;H_MERGING_VERSIONS_AND_VERSION_GRO
UPS_STEPS;',0)} [See related topics](#)

Overview: TeamMail in 1-2-3

TeamMail lets you send an entire workbook, or just a message, using your e-mail system.

What you can do as the originator of a workbook

If you distribute a workbook, you can distribute it to one or more people at once or route it sequentially to one person at a time, tracking its progress along the way. If you distribute a workbook and other team members change the data, you can later merge these changes into your original workbook by pasting in the returned data or by using File - TeamConsolidate - Merge Versions.

If you want to distribute a range of data that others can edit (rather than an entire workbook), use File - TeamReview.

What you can do as the recipient of a workbook

If you are the recipient of a workbook, you can make changes, add comments, and send it to the next person in the route list or back to the originator. If the originator granted permission, you can edit the route list.

TeamMail compatibility

TeamMail works with Lotus Notes, Lotus cc:Mail™, and other e-mail applications that support Vendor Independent Messaging (VIM), Messaging Application Programming Interface (MAPI), or Common Messaging Call (CMC).

To use TeamMail with Lotus Notes on Windows NT, you must have version 4.0 or higher.

If someone sends you a 1-2-3 Release 5 file with TeamMail, you can open it in 1-2-3 Release 9, but you cannot continue the routing process.

You cannot route a .123 workbook to a Release 5 user.

{button ,AL('H_SENDING_A_MESSAGE_ONLY_WITH_TEAMMAIL_STEPS;H_SENDING_A_WORKBOOK_WITH_TEAMMAIL_STEPS;H_DIFFERENCES_BETWEEN_TEAMMAIL_AND_TEAMREVIEW_OVER;H_MERGING_VERSIONS_AND_VERSION_GROUPS_STEPS;H_TEAMREVIEW_OVER;',0)} [See related topics](#)

Sending a workbook with TeamMail

You can attach the current workbook to a message, and then send it to a group of recipients all at once or route it sequentially to one person at a time.

1. Choose File - TeamMail.



2. Under Send, select "Workbook with message."
3. Click OK.
4. If prompted, type your e-mail password and any other required information in the Mail Login dialog box, and click OK.
5. Enter the names of the recipients and set tracking and delivery options on the Basics and Options tabs in the TeamMail dialog box.
6. Click Send.

```
{button ,AL('H_DIFFERENCES_BETWEEN_TEAMMAIL_AND_TEAMREVIEW_OVER;H_RECEIVING_A_ROUTED_RANGE_STEPS;H_TEAMMAIL_OVER;H_SENDING_A_MESSAGE_ONLY_WITH_TEAMMAIL_STEPS;H_DBO_X_BASICS_REF;H_DBOX_OPTIONS_REF';,0)} See related topics
```

Sending a message with TeamMail

You can send a message and, optionally, include a picture of the current selection in the message. Messages are sent to all recipients simultaneously rather than routed sequentially.

1. (Optional) To include a picture of a range or graphic object with your message, select the range or graphic object.
2. Choose File - TeamMail.



3. Under Send, select "Message only."
4. (Optional) Select "Paste in a picture of the selection" to include a picture of the selected range or object.
5. Click OK.
6. If prompted, enter your e-mail password and any other required information in the Mail Login dialog box, and click OK.
7. Enter the names of the recipients and set tracking and delivery options on the Basics and Options tabs in the TeamMail dialog box.
8. Click Send.

{button ,AL('H_SENDING_A_MESSAGE_ONLY_WITH_TEAMMAIL_DETAILS',1)} [See details](#)

{button ,AL('H_DIFFERENCES_BETWEEN_TEAMMAIL_AND_TEAMREVIEW_OVER;H_TEAMMAIL_OVER;H_SENDING_A_WORKBOOK_WITH_TEAMMAIL_STEPS;H_DBOX_BASICS_REF;H_DBOX_OPTIONS_REF;';0)}
[See related topics](#)

Details: Sending a message with TeamMail

Sending pictures of ranges and graphic objects

If you selected a range, it appears in a Notes e-mail as a table. If you selected a map, chart, or other graphic object, 1-2-3 pastes it as a bitmap in your e-mail message. You can't send a collection or an entire sheet as a picture.

Note You can send pictures with a message only if you are using Lotus Notes or another e-mail system that supports DDE paste commands.

{button ,AL('H_SENDING_A_MESSAGE_ONLY_WITH_TEAMMAIL_STEPS',1)} [Go to procedure](#)

TeamMail dialog box

Use this dialog box to send a message, include pictures of 1-2-3 data, or attach a workbook to a mail message.

Choose a task

[Sending a workbook with TeamMail](#)

[Sending a message with TeamMail](#)

{button ,AL('H_TEAMMAIL123_OVER;',0)} [See related topics](#)

Overview: TeamReview in 1-2-3

Using your e-mail system, TeamReview lets you send a range of workbook data to other 1-2-3 users. You can send a range to members of a team, collect their input, and have it returned to you automatically.

What you can do as the originator of a routed range

When you want to send a range out for review, you select the range and create a list of recipients.

You can send the range to all recipients at once, or route it from one person to the next, tracking its progress along the way.

Recipients make their changes, add comments, and return the range to you. You can open it in 1-2-3 and merge the changes into your original workbook.

For example, suppose you need figures from several different people to complete your department's budget. You tell 1-2-3 who to send the budget to, and in what order, and specify that you want the range returned to you. Your co-workers add their figures to the range and 1-2-3 automatically routes it to the next person on your list. When the range returns to you, 1-2-3 remembers where the range came from and can merge the updated range into your original workbook.

You can choose to incorporate just the changes you want, to replace your original data with reviewers' changes, or to merge each reviewer's changes as a version of your original range.

What you can do as the recipient of a routed range

When you receive an e-mail containing a routed range, you get an attached workbook containing the range. You can detach or launch the attached workbook. In the workbook, you can add or change data, make comments, and add drawings or charts.

You can then send the workbook along to the next recipient on the list. If the originator granted permission, you can edit the route list. If you are the last recipient, you can return the routed workbook to the originator.

TeamReview compatibility

TeamReview works with Lotus Notes, Lotus cc:Mail, and other e-mail applications that support Vendor Independent Messaging (VIM), Messaging Application Programming Interface (MAPI), or Common Messaging Call (CMC).

To use TeamReview with Lotus Notes on Windows NT, you must have Notes version 4.0 or higher.

{button ,AL('H_TEAMMAIL123_OVER;H_RECEIVING_A_ROUTED_RANGE_STEPS;H_SENDING_A_RANGE_FOR_REVIEW_STEPS;H_DIFFERENCES_BETWEEN_TEAMMAIL_AND_TEAMREVIEW_OVER;H_MERGING_DATA_INTO_A_WORKBOOK_STEPS;',0)} [See related topics](#)

Sending a range for review

You can send a range of data and a message to a list of recipients, either all at once, or one at a time in the order you specify.

1. Select the range you want to send.

Note If you want to merge data when the routed range is returned to you, make sure you save the workbook before you send the range for review.

2. Choose File - TeamReview.



3. Select an option for sending formulas and click OK.

1-2-3 creates a new workbook containing the range, and the flow control window opens.

4. (Optional) Make changes to the routed workbook.

Note 1-2-3 does not copy graphic objects, versions, or frames and links for Web tables, query tables, and datalink tables into the routed workbook. However, you can copy and paste them now before sending the workbook. You can merge the original data, including versions (but not graphic objects or tables), back into the original workbook.

5. Click Send.
6. If prompted, enter your e-mail password and any other required information in the Mail Login dialog box and click OK.
7. In the TeamMail dialog box, enter the names of recipients, select whether to distribute the workbook simultaneously or route it sequentially, and set other tracking and delivery options.
8. Click Send.

{button ,AL('H_SENDING_A_RANGE_FOR_REVIEW_DETAILS',1)} [See details](#)

{button ,AL('H_TEAMREVIEW_OVER;H_RECEIVING_A_ROUTED_RANGE_STEPS;H_MERGING_DATA_INTO_A_WORKBOOK_STEPS;H_DBOX_BASICS_REF;H_DBOX_OPTIONS_REF;',0)} [See related topics](#)

Details: Sending a range for review

What you can send in the selected range

The range you copy to the routed workbook can include cell data, cell comments, and scripts. Styles applied to the selected range are copied to the routed workbook.

When the selection is a 3D range, 1-2-3 displays the range in the routed workbook starting on sheet A.

You cannot send graphic objects, outline settings, collections, or versions. In addition, frames and links for Web tables, query tables, and datalink tables cannot be sent (the data in the range is sent, but the link and frame are lost). If you want to include any of these objects, use TeamMail to send the entire workbook for review. For information, see [Sending a workbook with TeamMail](#).

If the range you send contains a version, 1-2-3 sends data from the current version only. You can copy and paste versions, graphic objects, and tables or adjust settings in the routed workbook, before you send it to the first recipient.

Note When you send a range for review, you can later merge any changes that fall within the range you sent originally.

Formulas in the routed range

Selecting "Formulas and values" leaves formulas intact. Formulas that refer to data outside of the range you are sending will not evaluate correctly until the range is merged back into the original workbook.

Selecting "Values only" converts formulas in the range to their values.

Making changes in the routed workbook

The routed workbook contains a copy of the range you selected; it is not linked to the original workbook. Before sending, you can change data in the range, or add new data. For example, you might want only part of the data to be reviewed by the list of recipients. Or, you might want to delete certain data. Changes you make in the routed workbook are not reflected in the original workbook (unless you later merge the changes).

You can use the gray area surrounding the selected range to add data, make notes, and create charts or drawings. The additions you make here will be sent or routed to the next person, but only the range you originally selected can be merged back into your workbook.

{button ,AL('H_SENDING_A_RANGE_FOR_REVIEW_STEPS',1)} [Go to procedure](#)

{button ,AL(';H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Receiving a range or workbook

When you receive a range or workbook in an e-mail, you can open it, make changes to the data, and send it to the next person in the route list or back to the originator.

1. In your e-mail application, either launch the attachment to start 1-2-3 and open the workbook, or detach the workbook and then open it in 1-2-3 with File - Open.
2. Make changes to the workbook.
3. (Optional) Add comments in the flow control window (titled TeamMail or TeamReview).
4. Click the appropriate button in the flow control window. You will see one or more of these buttons, depending on what was sent and how:
 - Send to Next -- Sends the workbook or range to the next person on the recipient list.
 - Edit Route -- Edits the list of recipients.
 - Return to Originator -- Returns a workbook or range with your changes back to the originator.
 - Merge -- Combines changes to a routed range into your original workbook.
 - Done -- Closes the flow control window.

{button ,AL('H_RECEIVING_A_ROUTED_RANGE_DETAILS',1)} [See details](#)

{button ,AL('H_TEAMREVIEW_OVER;H_SENDING_A_RANGE_FOR_REVIEW_STEPS;H_MERGING_DATA_INTO_A_WORKBOOK_STEPS;',0)} [See related topics](#)

Details: Receiving a range or workbook

The flow control window, titled TeamReview or TeamMail depending on what was sent, stays open in 1-2-3 while you work with a routed range or workbook.

Options for handling routed ranges and workbooks

The buttons available in the flow control window vary depending on whether you are a recipient or the originator of the routed range or workbook, and whether it was mailed to all recipients at once or routed from one to the next.

- Send to Next -- Displays the name of the next person on the list. Click OK to send the workbook.
- Return to Originator -- You see this button if you are the last person on the route list and the originator selected the Return to Originator option, or if the range or workbook was sent to several recipients at once and the originator selected the Return to Originator option.
- Edit Route -- If the originator chose to let recipients change the route list, you see the Edit Route button. Clicking Edit Route opens the TeamMail dialog box so you can edit the list of recipients.
- Merge -- You see this button if you are the originator of a TeamReview range that completed the route and was returned to you. Clicking Merge lets you merge the range into your original workbook.
- Done -- You see this button if you are the last person to receive a routed workbook, or the last person to receive a routed range if the Return to Originator option was not selected. When you close the flow control window, 1-2-3 creates a text block in the current sheet to contain the routing information. To keep this information, you must save the workbook.

Note To consolidate changes if you are the originator of a workbook sent with File - TeamMail, copy the data back to the original workbook with Edit - Copy or use File - TeamConsolidate - Merge Versions.

Adding a comment

As the recipient of a range or workbook, you can enter or edit a comment in the "Comment" box in the flow control window. The comment appears next to your name in the "Contributor/Action" list.

{button ,AL('H_RECEIVING_A_ROUTED_RANGE_STEPS',1)} [Go to procedure](#)

Merging ranges into a workbook

When a range of data returns to you, you can merge it into your original workbook. When you merge the range, 1-2-3 opens the original workbook and replaces the original range with the routed range, or creates versions for the range if you request. You can only merge cells that are within the original range.

1. In your e-mail application, open the attached routed workbook.
2. (Optional) If you do not want to merge the whole range, select the portion of the range that you want to merge.
3. Click Merge.
4. Select "Entire routed range" or, if you're merging part of the range, select "Range."
5. Click OK.
6. If the destination range already contains data, select whether to keep both new and existing data as versions of the original range or to replace (overwrite) the original data with the new data.
7. To merge additional ranges, repeat steps 2 through 6.
8. (Optional) Save the routed workbook to keep a record of the merge.

{button ,AL('H_MERGING_DATA_INTO_A_WORKBOOK_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_TEAMREVIEW_OVER;H_SENDING_A_RANGE_FOR_REVIEW_STEPS;H_RECEIVING_A_ROUTED_RANGE_STEPS;',0)} [See related topics](#)

Details: Merging ranges into a workbook

If 1-2-3 can't find the original workbook

If 1-2-3 can't find the original workbook in its original location, the Select Workbook dialog box appears so you can specify the correct file and location.

Merging cells outside the original range

If the range that you are merging contains cells outside the original range, or if the range is completely outside the original range, 1-2-3 displays a message saying that only data within the routed range can be merged back into the original range. To merge data outside the routed range, use Edit - Copy and Edit - Paste or Team Consolidate - Merge Versions.

Multiple merges

When you are the originator and a routed workbook is returned to you, you can merge as many times as necessary. For example, if a recipient adds data to different parts of the range, you can merge each part of the range separately.

Saving merge records

1-2-3 creates a merge record each time you merge data into the original workbook. The merge information appears in the "Comment" box in the [flow control window](#). The merge record provides detailed information about what was merged.

By saving the routed workbook, you can save merge records to keep an audit trail of the routed workbook's progress.

Merging and versions

If you choose to keep the original data as well as the new data from the routed range, 1-2-3 creates two versions for the range: Original Data, which contains the original data, and Merged 1, which contains the new data. If the original range is a named range, 1-2-3 creates the new versions using the original range name. If the original range is not named, but the routed range is named, 1-2-3 uses the name of the routed range. If neither range is named, 1-2-3 names the range MERGED 1. For example, if neither range is named, 1-2-3 names the range MERGED 1, and then creates two versions for it: Original Data and Merged 1.

If the routed range and the original range have matching named ranges of the same size, versions in the routed range are merged into the corresponding ranges in the original file.

If a routed range contains versioned ranges that do not exist in the original workbook, 1-2-3 creates those versions in the original workbook. If 1-2-3 merges all the versions within a version group, the version group is merged as well.

If a partial selection of the routed range is a versioned range, 1-2-3 merges all versions in that range only. If the selected range already has a range name, 1-2-3 uses that name instead of MERGED 1.

If any data is not merged, 1-2-3 records omissions in the merge record.

{button ,AL('H_MERGING_DATA_INTO_A_WORKBOOK_STEPS',1)} [Go to procedure](#)

{button ,AL('H_MERGING_VERSIONS_AND_VERSION_GROUPS_STEPS',0)} [See related topics](#)

TeamReview Assistant dialog box

Use this dialog box to select a range to send instead of a single cell.

Choose a task

[Sending a range for review](#)

[Selecting a range from a dialog box](#)

{button ,AL(`H_TEAMREVIEW_OVER;`,0)} [See related topics](#)

Overview: 1-2-3 Top 10 tasks

The Help topics in this book describe features you can use to perform the top ten most common spreadsheet tasks. Each Help topic gives you the basics and directs you to more detailed Help.

Click an item in the list below and have fun exploring.

[Previewing and printing data](#)

[Moving data in and out of 1-2-3](#)

[More power with @functions and formulas](#)

[Styling a sheet](#)

[Copying, moving, and filling](#)

[Charting and mapping your data](#)

[Easy database access](#)

[Automating 1-2-3](#)

[Row and column operations](#)

[Starting smart with SmartMaster templates](#)

Automating 1-2-3

Using LotusScript, you can automate simple 1-2-3 tasks and create complex custom applications.

Also, you can still run macros from previous releases of 1-2-3 and, using script equivalents to macro commands, you can convert your macros to LotusScript.

What is LotusScript?

LotusScript is an object-oriented, BASIC-compatible programming language used by all the SmartSuite products and Notes. You can create scripts to run within 1-2-3 and across products.

For reference Help about all the 1-2-3 LotusScript commands, see [1-2-3 LotusScript A-Z](#).

The LotusScript IDE

1-2-3 provides an Integrated Development Environment (IDE) to facilitate writing, editing, recording, and debugging scripts. In the IDE, you can access all the objects you need to create all kinds of scripts.

The LotusScript Dialog Editor

Using the LotusScript Dialog Editor, you can create custom dialog boxes and attach scripts to them.

Let 1-2-3 create scripts for you

You can write scripts from scratch, and you can use 1-2-3 to record many useful scripts. The commands for running and recording scripts are on the Edit - Scripts & Macros menu.

Moving from macros to LotusScript

You still can run your existing macros, and you can create new ones. For information about writing, recording, running, and debugging macros, see [Overview: 1-2-3 macros](#).

For information about macro compatibility between this release of 1-2-3 and previous releases, see [Macro compatibility](#). For information about LotusScript equivalents to 1-2-3 Release 5 macro commands, see [Overview: 1-2-3 Release 5 macro command equivalents](#).

To review the current 1-2-3 macro commands, just type { (open brace) in a cell and press F3 (NAME). The Macro Keywords dialog box appears, and you can do the following:

- Browse through the list of commands and the brief descriptions of each command.
- Select a command from the list and click OK to insert the command and argument placeholders in the current cell.

If you have the CD edition of SmartSuite or 1-2-3, you can find the 1-2-3 macros Help file in the EXTRA directory, ready for you to install. Otherwise, if you have access to the World Wide Web, you can download a copy of 1-2-3 macro reference Help and install it with your copy of 1-2-3. For more information, see [Installing Help on macro commands](#).

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_LOTUSSCRIPT_INDEX_TOPIC_OVER;H_123_CONVERTING_MACRO_BUTTONS_OVER;H_123_CREATING_A_BUTTON_STEPS;H_123_RUNNING_A_SCRIPT_STEPS;H_123_RECORDING_A_SCRIPT_STEPS;H_123_VIEWING_A_SCRIPT_STEPS;H_123_TURNING_RECORDING_OFF_STEPS;H_CALLING_A_SCRIPT_FROM_A_MACRO_STEPS;H_ATTACHING_A_SCRIPT_TO_AN_ICON_STEPS';0)} [See related topics](#)

Charting and mapping your data

The most powerful way to convey the significance of your numbers is displaying them as a chart or map.

Creating a chart

In one step, you can create a chart, complete with titles, labels, and a legend. After you've selected the range of data you want to chart, click this icon:



Then click the sheet where you want your chart to appear, and 1-2-3 draws your chart. For more information, see [Overview: Creating a chart in 1-2-3](#).

Changing chart type

By default, 1-2-3 creates a bar chart. If you want to display a different type of chart, you can:

- Change the default by using Chart - Chart Styles - Set Default Chart.
- Use the Type tab in the Chart Properties InfoBox or any of the chart type SmartIcons to change the type of a selected chart.

Mapping your data

Lotus Mapping lets you draw maps that represent your data geographically. For example, with just a click, you can create maps of population density by state or average rainfall by province.

As with charting, you select a range of data to map. Then click this icon:



Click the sheet where you want your map to appear, and 1-2-3 draws your map. You can then enhance the map with colors, patterns, overlays, and pin characters. For more information, see [Introducing maps in 1-2-3](#).

Manipulating parts of charts and maps

Manipulating and changing parts of charts and maps is simple. Just point to the part -- for example, the chart title or map legend -- and right-click to display a menu of commands you can use on that part. To display the InfoBox for working with part of a chart or map, just double-click the part.

```
{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_CREATING_A_CHART_IN_123_OVER;H_CREATING_A_CHART_IN_123_STEPS;H_CHANGING_MAP_APPEARANCE_OVER;H_CREATING_A_MAP_STEPS;H_MODIFYING_MAPS_OVER;H_PURCHASING_MORE_MAPS_OVER;H_SETTING_UP_MAP_DATA_STEPS;',0)} See related topics
```


Copying, moving, and filling

1-2-3 features a variety of ways to copy and move data. You can also quickly fill ranges with data.

Drag and Drop

You can drag and drop:

- Data in the same sheet, between sheets, and between open workbooks.
- Data between 1-2-3 and other programs that support OLE.
- Sheets within the same workbook.

For more information, see:

[Copying and moving using drag and drop](#)

[Copying data from 1-2-3 with drag and drop](#)

[Copying data into 1-2-3 with drag and drop](#)

[Copying a sheet](#)

[Moving a sheet](#)

Copy, move, and fill commands

The commands to copy and move and fill are Edit - Copy, Edit - Cut, Edit - Paste, Range - Fill. You can also just click these SmartIcons:



Copy to the Clipboard



Cut to the Clipboard



Paste the Clipboard contents



Fill a range with data

Quick ways to copy formulas

You often want to copy formulas into cells below or to the right. Use Edit - Copy Right and Edit - Copy Down, or just click these SmartIcons:



Copy right



Copy down

For more information, see [Copying right to fill a range](#) and [Copying down to fill a range](#).

SmartFill

Do you enter the same sequences of items over and over again -- for example, the days of the week, the months of the year, the names of your regional field offices? SmartFill can save you time and effort by automatically filling a range with this data.

If it's a common sequence like the days of the week, just enter the first item of the sequence and position the mouse pointer at the bottom right corner of the cell so it looks like this:



Then just drag to select the range you want to fill.

You can also create your own custom SmartFill lists, and you can fill ranges according to data already in the range. For more information about creating custom fill lists, see [Overview: Creating custom SmartFill lists](#). For information

about filling a range by example, see [Overview: Filling ranges](#).

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_FILLING_A_RANGE_USING_DRAGANDFILL_STEPS;H_COPYING_AND_MOVING_FORMULAS_OVER;H_COPYING_AND_MOVING_OVER;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS;H_123_COPYING_TO_FILL_A_3D_RANGE_STEPS',0)} [See related topics](#)

Easy database access

1-2-3 offers two ways to help you manage and analyze data contained in 1-2-3 or external database tables:

- The Create - Database commands give you access to the many powerful database features of Lotus Approach. 1-2-3 and Approach are installed together when you install 1-2-3. Using the Create - Database commands, you can access Approach to create query tables, data entry forms, reports, mailing labels, form letters, and dynamic crosstabs.

For more information about using the Create - Database commands, see [Overview: Working with 1-2-3 and Approach](#).

- The Data Query Add-in (DQA) is included in this release of 1-2-3 to give you data query functionality that is similar to that in 1-2-3 Release 5. When you load DQA, you can work with query tables created in 1-2-3 Release 5 or the Query Table Add-in from 1-2-3 97. You can also create new query tables and crosstabs.

For more information about using DQA, see [Overview: Data Query Add-in \(DQA\)](#).

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_DB_WORKING_WITH_DATABASE_TABLES_OVER',0)} [See related topics](#)

More power with @functions and formulas

To perform calculations in 1-2-3, you can use built-in formulas, called @functions, or you can create your own formulas.

Working with @functions

To use @functions, just click the @function selector.



Choose List All to see a list of the more than 200 @functions.

You can:

- Browse through the list and read a brief description of each @function, or click Help for more detailed information on a selected @function.
- Select an @function and click OK to insert the @function and argument placeholders into the current cell.

For more information, see [Overview: @Functions](#).

Popular @functions

The @Functions book in Help Contents contains an alphabetical list of @functions and a list of @functions organized by category. Here's Help for some of the most popular @functions:

[@AVG](#)

[@IF](#)

[@NPV](#)

[@ROUND](#)

[@SUM](#)

[@TODAY](#)

Using SmartLabels

Using the SmartLabels feature, you can automatically create formulas below or to the right of a range by entering a recognized label. These labels can have formulas, formats, and synonyms associated with them. You can also customize the SmartLabels 1-2-3 provides or create your own SmartLabels. There are 8 predefined SmartLabels you can use, or you can create your own SmartLabel. For more information, see [Working with SmartLabels](#).

For example, you just type a word such as "Total" or "Totals" to sum columns or rows of values. To sum columns, enter Total to the left of the range you want to sum.

6		Paris	Atlanta
7	June	5500	3300
8	July	4500	5600
9	August	3200	2100
10	Total	13200	11000

Enter "Total" here to sum columns

To sum rows, enter Total above the range you want to sum.

Enter "Total" here to sum rows

15		Paris	Atlanta	Total
16	June	5500	3300	8800
17	July	4500	5600	10100
18	August	3200	2100	5300

For more information, see [Summing a range automatically](#).

You can also click this icon to sum values above and to the left:



Working with formulas

When you enter formulas, 1-2-3 displays the formula results in the sheet and the formula in the edit line. When you change data a formula refers to, the formula results automatically change.

For more information about formulas, see [Overview: Using formulas](#).

Auditing a workbook

Have you ever opened a workbook and wondered where all the formulas are and how they work? To help yourself and others audit workbooks, you can use [formula markers](#) to identify cells containing formulas. You can also annotate cells with comments about the cell contents.

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_GUIDELINES_FOR_ENTERING_FORMULAS_OVER;H_USING_FORMULAS_OVER;H_CREATING_A_CELL_COMMENT_STEPS;H_ENTERING_A_FORMULA_STEPS;H_ENTERING_AN_ATFUNCTION_STEPS;H_FUNCTION_FORMAT_OVER;',0)} [See related topics](#)

Moving data in and out of 1-2-3

1-2-3 provides many ways to move data in and out of your spreadsheets. You can:

- Open and save many different types of files.
- Cut and paste and drag and drop data from one 1-2-3 workbook to another and between 1-2-3 and other programs.
- Use the Internet to move data in and out of 1-2-3.
- Move data between 1-2-3 and Notes.
- Use 1-2-3 team features to share data in and out of 1-2-3.

Using File - Open and File - Save As

You can use File - Open to bring in data from 1-2-3 workbooks and many other types of files, including Excel, dBASE, Paradox, and text files. You can also combine files and parse data from the Open dialog box. For more information about opening files in 1-2-3, see [Overview: Creating and opening files](#).

You can use File - Save As to save files in many different file formats, including Excel, dBASE, Paradox, and text. You can save an entire file in these various file formats, or you can save just a selected range. For more information, see [Overview: Closing and saving files](#).

Moving data between 1-2-3 and other programs

To move data between 1-2-3 and other programs, you can:

- Use Edit - Copy and Edit - Cut to move 1-2-3 data onto the Clipboard and then use Edit - Paste to bring the data into 1-2-3. For more information, see [Copying and moving data from other applications into 1-2-3](#).
- Use Edit - Paste Special or Edit - Paste Link to create links between 1-2-3 and other programs. The link ensures that the data you bring into 1-2-3 is updated whenever the data in the other program changes. For more information, see [What is an OLE link?](#)
- Drag and drop data between 1-2-3 and other programs that support OLE. For more information, see [Copying data from 1-2-3 with drag and drop](#) and [Copying data into 1-2-3 with drag and drop](#).

Using the Internet

1-2-3 provides fast and easy ways to move data between your workbooks and the World Wide Web. You can use File - Open to open World Wide Web and FTP files stored on the Internet. You can import HTML tables into 1-2-3 and much more.

You can:

- Use File - Save As to save your workbooks directly to the Internet. Just click the Internet button in the File - Save As dialog box and select the Internet site where you want to save your file.
- Publish a 1-2-3 range to a Web site. The published range appears as an HTML table on the Web site you chose. Just select the range you want to publish to the Internet and click this icon:



- Perform a Web search on the content of a 1-2-3 cell. Just select the cell and click this icon:



For more information, see [Overview: Working with Internet connections](#) and [Internet features](#).

Using Notes

There are several convenient features for moving data between 1-2-3 and Notes. You can use:

- The Lotus Notes button in the Open dialog box to open files embedded in documents in a Notes database. For more information, see [Opening a Notes file attachment from within 1-2-3](#).
- TeamConsolidate to distribute sheets to a Notes database for input from your colleagues. For more information, see [Overview: Distributing workbooks with TeamConsolidate](#).
- Notes/FX to exchange data in a 1-2-3 range with a document in a Notes database. When you change a value in a range, the corresponding Notes field updates automatically, and vice versa. For more information, see [Overview: Setting up Notes/FX](#).

Using 1-2-3 team features

1-2-3 has other team features for sharing data inside and outside 1-2-3. You can use:

- TeamReview to send ranges or entire workbooks to lists of colleagues using Lotus Notes, cc:Mail, or most any e-mail system. For more information, see [Overview: TeamReview in 1-2-3](#).
 - TeamMail to send a message or a workbook. You can broadcast data or route it sequentially to one person at a time, tracking its progress along the way. For more information, see [Overview: TeamMail in 1-2-3](#).
 - [Versions](#) and [version groups](#) to move data in and out of 1-2-3. For example, use TeamConsolidate to distribute data and, after your colleagues enter their versions, merge the versions into a single workbook. You can also use TeamMail and TeamReview to distribute and collect versions. For information about working with versions, see [Overview: Versions](#).
-

```
{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_COMBINING_DATA_STEPS;H_COPYING_USING_THE_CLIPBOARD_STEPS;H_MOVING_USING_THE_CLIPBOARD_STEPS;H_OPENING_A_TEXT_FILE_STEPS;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING_A_RANGE_TO_A_FILE_STEPS;H_CREATING_A_123_FILE_LINK_STEPS;H_USING_DATA_FROM_OTHER_APPLICATIONS_IN_123_OVER;H_COPYING_123_DATA_TO_OTHER_APPLICATIONS_OVER;H_WORKING_WITH_VERSION_GROUPS_OVER;H_CREATING_A_VERSION_STEPS;H_CREATING_A_VERSION_GROUP_STEPS';,0)} See related topics
```

Previewing and printing data

Previewing

It's easy to preview your spreadsheets and make layout and data changes before printing. When you preview data, 1-2-3 displays the Workbook window and the Preview window side by side, along with the Preview & Page Setup InfoBox, and the Previewing set of SmartIcons.

Previewing is live and dynamic. When you change data in the Workbook window or use the InfoBox to modify page layout, you immediately see the results in the Preview window. When your data and layout are all set, you can print directly from the Preview window without displaying the Print dialog box.

- To preview your presentation, click this icon:



- To zoom in and out, click anywhere in the Preview window.
- To view pages in a variety of ways, click these icons:



Preview one page



Preview two pages



Preview four pages



Preview nine pages

- To display the next or previous page, click these icons:

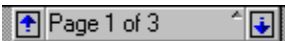


Preview the next page



Preview the previous page

- To go to the page you want to display, click the arrows in the status bar:



- To close the Preview window, click the close box or this icon:



For more information on previewing, see [Overview: The Preview window](#).

Printing

Printing is also flexible and direct.

- 1-2-3 prints everything -- data, charts, graphics -- exactly as you formatted it. To display the Print dialog box, click this icon:



- To by-pass the Print dialog box and quick-print a selected range, chart, or graphic, click this icon:



For more information on printing, see [Overview: Printing](#).

```
{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_PRINT_QUICK_STEPS;H_PRINT_PREVIEW_KEY_MOUSE_SH  
ORTCUTS_OVER;H_PRINT_SELECTING_A_PRINTER_STEPS;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS  
;H_PRINT_A_WORKBOOK_STEPS;H_PRINT_A_SHEET_STEPS;H_PRINT_A_RANGE_STEPS;',0)} See  
related topics
```

Row and column operations

You often need to shift data around, add new data and blank areas, and change row heights and column widths. 1-2-3 makes all these row and column operations easy. Once your sheet is all set, you can use outlining to expand and collapse rows and columns so you can view details or summary data.

Adding and deleting columns and rows

- To insert columns or rows, use Range - Insert, or click these SmartIcons:



Insert one or more columns to the left of the selected columns



Insert one or more rows above the selected rows

- To insert columns or rows immediately without displaying a dialog box, select as many entire columns or rows as you want to insert, and choose Range - Insert Column or Range - Insert Row.
- To delete columns or rows, use Range - Delete, or click these SmartIcons:



Delete all columns in the selected range



Delete all rows in the selected range

- To delete columns or rows immediately without displaying a dialog box, select as many entire columns or rows as you want to delete, and choose Range - Delete Column or Range - Delete Row.
- To delete columns or rows in a range without upsetting the layout of data around that range, select "Insert in selected range only" or "Delete in selected range only" in the Range - Insert or Range - Delete dialog box.

Changing row height and column width

- The quickest way to change column width is to position the mouse pointer on the column border right of the column letter, and drag the border right or left until the column is the width you want.

A	A	B	C
1			
2			

You can also double-click the column border to adjust the column to fit its widest entry.

- The quickest way to change row height is to position the mouse pointer on the bottom border of the row and drag the border up or down until the row is the height you want.

A	A	B
1		
2		
3		

You can also double-click the row border to adjust the row to fit its tallest entry.

For more information, see [Overview: Sizing columns and rows](#).

Hiding columns or rows

Hiding columns or rows is a good way to keep other users of your workbooks focused on what you want them to see rather than on confidential or distracting information.

- To hide columns, position the mouse pointer in the sheet frame on the right border of the column you want to hide and drag left until the indicator shows 0 (zero).
- To hide rows, position the mouse pointer in the sheet frame on the bottom border of the row you want to hide and drag up until the indicator shows 0 (zero).

For more information, see [Overview: Hiding data](#).

Outlining rows and columns of data

Outlining lets you expand and collapse rows and columns to see and print different levels of detail. You can create an outline with up to eight levels of rows and columns. You can collapse rows and columns of details to see just your summary data. When you need to see the details, it's easy to expand the rows and columns again.

For more information, see [Overview: Creating an outline](#).

```
{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_DELETING_A_RANGE_STEPS;H_DELETING_COLUMNS_AND_ROWS_STEPS;H_INSERTING_A_RANGE_STEPS;H_INSERTING_COLUMNS_AND_ROWS_STEPS;H_SIZING_COLUMNS_STEPS;H_SIZING_ROWS_STEPS;H_HIDING_ROWS_STEPS;H_HIDING_COLUMNS_STEPS;H_WORKING_WITH_OUTLINES_OVER;',0)} See related topics
```

Starting smart with SmartMaster templates

SmartMaster templates give you a quick start for creating many useful spreadsheets. Each SmartMaster provides a template for a common business or financial task, such as amortizing a loan; filling out a time sheet; creating budgets, invoices, sales plans, purchase orders, and expense reports.

Starting smart

You can access SmartMaster templates from the Welcome dialog box, or choose File - New Workbook and select the SmartMaster you want.

Each SmartMaster template contains sample data to help you understand how the SmartMaster works. After looking over the sample data, you can replace it with your own data.

Formulas, print ranges, formatting, and charting are built into the templates for fast, great-looking results, and SmartMaster templates also include built-in buttons for printing or mailing data.

For more information, see [Working with SmartMaster templates](#).

Custom SmartMaster templates

To create your own SmartMaster templates for sharing with your team, you can:

- Modify an existing SmartMaster and save it as a new template.
- Save a workbook in SmartMaster format.
- Create your own template, based on SHELL.12M, a starter template that comes with 1-2-3, and add a title and description for easy identification.

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_CREATING_A_WORKBOOK_USING_A_SMARTMASTER_STEP
S;H_USING_SMARTMASTERS_STEPS;H_CREATING_A_SMARTMASTER_TEMPLATE_STEPS','0)} [See
related topics](#)

Styling a sheet

Use the 1-2-3 styling features to transform a simple sheet into a great-looking presentation.

The InfoBox and status bar give you one-stop shopping for all kinds of fonts, formats, colors, borders, designer frames, alignments, user-defined styles, and the Style Gallery of ready-made style templates.

The InfoBox

Use the InfoBox to style ranges, graphics, charts, and more. Just select what you want to style, right-click the selection, and choose the Properties command. Click the InfoBox tabs to see the styling options available to you. You can leave the InfoBox open as you work, and you can move, collapse, or close the InfoBox if it covers data you want to see.

For more information on the InfoBox and how to use it, see [Overview: The InfoBox](#) and [Using the InfoBox](#).

The status bar

The status bar at the bottom of the 1-2-3 window gives you quick access to fonts, font sizes, named styles, and number formats, including more than 40 international currency formats.

For more information about using the status bar, see [Overview: Using the status bar](#).

Fast formatting

You can quickly paint a range with styles from another range. Select the range whose styles you want to copy and choose Range - Fast Format or click this icon:



Then just select the ranges you want to fast format.

For more information, see [Using fast format to style a range](#).

The Style Gallery and designer frames

You can transform a simple spreadsheet into a beautiful presentation by choosing a template from the Style Gallery. You can also put designer frames around important data to emphasize it.

For more information, see [Using style templates](#) and [Overview: Changing borders, lines, and colors](#).

{button ,AL('H_123_TOP_TEN_TASKS_OVER;H_ALIGNMENT_OVER;H_NAMED_STYLES_OVER;H_STYLE_KEY
S_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;','0')} [See
related topics](#)

Point mode

Lets you specify a range. 1-2-3 changes to Point mode when you:

- Click the range selector in a dialog box or in the InfoBox
- Highlight a cell or range that you want to include in a formula

{button ,AL('H_USING_THE_STATUS_BAR_OVER',0)} [See related topics](#)

Edit mode

In Edit mode, you can change data in the current cell or in the contents box. 1-2-3 changes to Edit mode when you:

- Double-click a cell.
- Press F2 (EDIT) when you are typing an entry.
- Press F2 (EDIT) when 1-2-3 is in Ready mode.
- Click anywhere in the contents box.
- Type an entry that 1-2-3 cannot accept. 1-2-3 places the insertion point at the point where it detects an error.

Use the editing keys to change data when 1-2-3 is in Edit mode.

{button ,AL(`H_USING_THE_STATUS_BAR_OVER;H_EDITING_KEYS_OVER',0)} [See related topics](#)

Label mode

Indicates that the data you are entering is a label. 1-2-3 classifies an entry as a label if the first character you type is a letter or a label-prefix character. A label can be up to 512 characters long.

{button ,AL('H_USING_THE_STATUS_BAR_OVER;H_ENTERING_DATA_OVER',0)} [See related topics](#)

Mode indicator

Indicates the current mode 1-2-3 is in. The following indicators are available:

Indicator	What it means
Edit	You double-clicked a cell or pressed F2 (EDIT) to edit a cell, or you made an incorrect entry.
Error	1-2-3 is displaying an error message.
Files	You are in 1-2-3 Classic and 1-2-3 is displaying a list of file names.
Find	You are in 1-2-3 Classic and 1-2-3 is displaying the results of the /Data Query Find command.
Label	You are entering a <u>label</u> .
Menu	You are choosing a menu command or selecting options in a dialog box.
Names	You are in 1-2-3 Classic and 1-2-3 is displaying a list of range names.
Point	You are selecting a range before choosing a command, while working in a dialog box or the <u>InfoBox</u> , or while entering a formula.
Ready	1-2-3 is ready for you to enter data or choose a command.
Value	You are entering a <u>value</u> .
Wait	1-2-3 is completing a command or process, such as saving a file.

{button ,AL(`;H_USING_THE_STATUS_BAR_OVER;H_123_CLASSIC_OVER',0)} [See related topics](#)

Status indicator

Indicates the current state 1-2-3 is in. The following indicators are available:

Indicator	What it means
Cmd	1-2-3 is running a script or macro.
End	You pressed END to use with a <u>pointer-movement key</u> .
Grp	The current sheet belongs to a set of grouped sheets.
PR	The current cell is protected. This flag is displayed only if the workbook is locked.
Rec	You are recording a script.
U	The current cell is unprotected.

{button ,AL(`H_USING_THE_STATUS_BAR_OVER;H_POINTERMOVEMENT_KEYS_OVER',0)} [See related topics](#)

Overview: Using the status bar

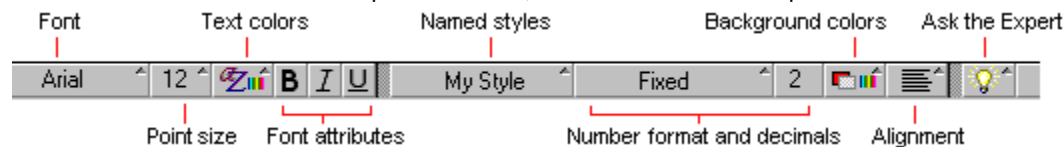
The status bar, located at the bottom of the 1-2-3 window, gives you information about the current selection and tells you what 1-2-3 is doing. You can click different buttons in the status bar to perform many functions.

The contents of the status bar change when you open the Preview window or select a:

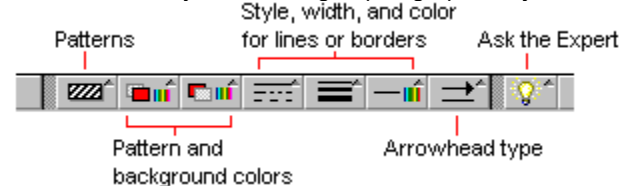
- Range
- Query table
- Text block, chart, map, or button
- Line, shape, or other draw object
- OLE object

For example, when you open a workbook, you see the following status bar.

Note To see the entire status bar pictured below, either maximize the Help window or use the bottom scroll bar.



However, when you select a group of graphic objects, several buttons change:



Some status bar buttons also change when you preview a file before you print it.

Selecting status bar options

The status bar contains many buttons that let you perform such operations as changing the typeface of a range of text, assigning a different color to a drawn object, or applying a named style to a range.

When you click certain status bar buttons, a pop-up list appears and you can pick another option. For example, if you click the typeface button, a list of other available typefaces appears. You can change the font of the selected cells by selecting a different font on the list. In other cases, a color library appears, allowing you to select a different color.

To change an option using the mouse, point to the new selection and click.

The right side of the status bar includes a status indicator, a mode indicator, and some buttons that perform a function. For example, the Circular reference button appears in the status bar when a formula refers to itself. To locate the circular reference, you click the button.



Status and mode indicators

A status indicator shows the current state of 1-2-3, such as when 1-2-3 is running a script or the current cell is protected. For example, Cmd appears on the status bar when 1-2-3 is running a script or macro.

A mode indicator shows the current operating mode of 1-2-3, such as Ready or Edit. The mode indicator changes when you press certain keys or 1-2-3 performs certain actions. For example, when you select a menu command, the mode indicator changes to Menu, and you can select a command.

You cannot change status or mode indicators by clicking them.

Buttons that perform a function

The status bar also includes some buttons that perform specific functions. For example, you can click the Circular reference button to move to the first circular reference in the sheet. Similarly, you can click the Calc button to manually recalculate formulas. If you have an e-mail program running on your system that includes unread messages, you can access it by clicking the Mail button. And if you want to find out how to perform a particular task in 1-2-3, you can click the Expert button.

Using the keyboard to select status bar options

You can also use the keyboard to pick another option from a status bar button. After you click a button, use , ↓, →, or

← to move through the list of options. In lists of words, type the first letter of a word to move to the first word that begins with that letter. For example, type C to move to the first font that begins with the letter "C" in the font list. Press ENTER to make the selection.

The progress indicator

When you save a file or open an existing file, the status bar indicates the percentage of the file saved or opened. The progress indicator includes:

- Descriptive text (opening, combining, or saving the file)
- The percentage complete
- A gauge, showing the percentage complete



Hiding the status bar

To hide the status bar, choose View - Hide Status Bar. To redisplay it, choose View - Show Status Bar.

```
{button ,AL('H_EDIT_MODE_OVER;H_LABEL_MODE_OVER;H_PROGRESS_INDICATOR_OVER;H_VALUE_MODE_OVER;H_MODE_INDICATOR_OVER;H_STATUS_INDICATOR_OVER;H_SETTING_RECALCULATION_DEFAULTS_DETAILS;H_COMMON_ERRORS_IN_FORMULAS_OVER;H_123_POINT_MODE_OVER',0)} See related topics
```

Value mode

Indicates you are entering a value. 1-2-3 classifies an entry as a value if the first character you type is a number (0 through 9) or any one of these characters:

+ - @ . (# \$ (or the current currency symbol)

A value can also be a formula or an @function.

Editing values

Use the following keys when 1-2-3 is in Value mode:

Key	Definition
F2 (EDIT)	Switches between Value and Edit mode. When 1-2-3 is in Edit mode, you can use all the editing keys.
F4	Switches a cell or range reference among <u>relative</u> , <u>mixed</u> , and <u>absolute</u> types.
F9 (CALC)	Converts a formula to its current value.

{button ,AL('H_USING_THE_STATUS_BAR_OVER',0)} [See related topics](#)

Overview: The InfoBox

What is the InfoBox?

The InfoBox is a fast and direct way to change the properties of an object. Properties are the characteristics of an object, such as color, name, size, and protection setting.

You use the InfoBox to change the properties of an object or any of its parts. For example, you can change the properties for an entire sheet, a cell, a chart, the title of a chart, and so on.

The InfoBox consists of a series of tabs. Each tab contains a category of properties you can change for the current selection.

The following illustration shows how to work with the InfoBox.



How the InfoBox works

When you open the InfoBox, it displays the current properties for the selected object. When you select a different object, the InfoBox changes to display the properties for that object, so you can leave the InfoBox open as you work. You can move, collapse, or close the InfoBox if it covers data you want to see. The "Properties for" box in the title bar of the InfoBox displays the type of object selected.

Opening the InfoBox

You can open the InfoBox by:

- Selecting an object and choosing Properties from the menu for that object.
For example, select a range and then choose Range Properties from the Range menu.
- Selecting an object and clicking the InfoBox icon. Look for the following symbol to identify icons that open the InfoBox for the selected object:



- Double-clicking the object (except for objects that contain text, such as cells, text blocks, and chart or map titles).
- Right-clicking the object and choosing the Properties command.

Changing properties

Changes appear immediately in your selection as you select options in the InfoBox. You can make many changes to one object or make changes to several objects without closing the InfoBox.

For example, you can select a range and change the background color, change the column width, and name the range. Then, without closing the InfoBox, you can select a chart, change the color of its border, and change it from a plain bar chart to a 3D bar chart. The changes appear as you make them, so you don't need to click OK or close the InfoBox before doing something else.

To undo the most recent change, choose Undo from the Edit menu.

Note Undo affects only the most recent change. You cannot use Edit - Undo to undo all changes made in the InfoBox.

{button ,AL('H_USING_THE_INFOBOX_STEPS;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER;H_USING_THE_STATUS_BAR_OVER;','0)} [See related topics](#)

Details: Using the InfoBox

When do InfoBox changes take effect?

In the InfoBox, when you select an option or pick from a list, your selection takes effect immediately. When you type something (such as a name or range address) in the InfoBox, 1-2-3 waits for you to confirm what you typed. Confirm the entry by pressing ENTER or clicking any InfoBox tab.

InfoBox tabs

Each tab in the InfoBox contains a category of properties you can change for the current selection. Examples of some tabs appear below.



Change font, size, color, and attributes for selected text



Change alignment for sheets, ranges, and text blocks



Change the number format for sheets, ranges, and charts



Change color, pattern, and line style for sheets, ranges, and graphic objects



Change basic properties such as an object's name

Bubble help for InfoBox tabs

To display a description of an InfoBox tab or a SmartIcon, hold the mouse pointer over the tab or icon.

To turn off bubble help for InfoBox tabs and SmartIcons, choose User Setup from the File menu, then choose SmartIcons Setup and deselect "Show icon descriptions (bubble help)."

The InfoBox and the Help window

If the Help window is open when you open the InfoBox, the Help window may cover the InfoBox. To see the InfoBox, move, minimize, or close the Help window.

{button ,AL('H_USING_THE_INFOBOX_STEPS',1)} Go to procedure

Using the InfoBox

You can make changes to one object or several objects without closing the InfoBox.



[Show me a QuickDemo](#)

1. Select what you want to modify.
2. Right-click the selection and choose the Properties command.
3. Click the tab for the properties you want to change.
4. Select one or more options.
5. (Optional) Move, collapse, or close the InfoBox.

Tip To open the InfoBox, click the InfoBox icon for the selected object. Look for this symbol on the icon:



{button ,AL('H_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

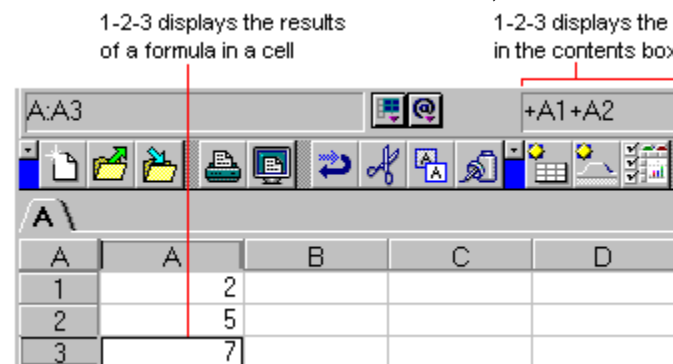
{button ,AL('H_THE_INFOBOX_OVER;H_INFOBOX_KEYS_OVER',0)} [See related topics](#)

Overview: Using formulas

A formula is an entry in a sheet that performs a calculation on numbers, text, or other formulas. When you use formulas in a sheet, your data becomes dynamic. When Recalculation is set to automatic, 1-2-3 recalculates the formula for you if you change data to which the formula refers.

Writing formulas

You enter a formula in a cell much as you enter any data into a sheet. Once you enter the formula, 1-2-3 displays the formula's result in the cell. To see the formula, look in the contents box.



You can always type the numbers or text you want to calculate directly into the formula. You can also enter the data in other cells, then use cell addresses or named ranges in the formula.

You can sum a range of data without entering a formula, using the 1-2-3 automatic summing feature.

Seeing which cells contain formulas

Formula markers let you quickly see which cells contain formulas. You can choose whether to display formula markers in the sheet.



Use View - Set View Preferences to turn on formula markers.

Linking workbook files

A formula that refers to a range in another workbook is called a file reference or file link. A formula in one workbook that refers to a range in another workbook links the two workbooks. Formulas can refer to an active workbook or to a workbook file on disk.

You can create links to .123, .WK4, .WK3, and .WK1 files.

Using @functions

An @function is a built-in formula that performs a specialized calculation, such as finding the average of a column of numbers. See [Overview: @Functions](#) for more information.

{button ,AL('H_SUMMING_A_RANGE_AUTOMATICALLY_STEPS;H_COMMON_ERRORS_IN_FORMULAS_OVER;
H_EDITING_A_FORMULA_STEPS;H_ENTERING_A_FORMULA_STEPS;H_GUIDELINES_FOR_ENTERING_F
ORMULAS_OVER;H_PARTS_OF_A_FORMULA_OVER;H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_
STEPS;H_TYPES_OF_FORMULAS_OVER;H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;H_REFERRI
NG_TO_OTHER_FILES_IN_FORMULAS_DETAILS;H_USING_RANGE_ADDRESSES_IN_A_FORMULA_STEP
S',0)}} [See related topics](#)

Types of formulas

1-2-3 has three types of formulas: numeric, text, and logical.

Numeric formulas

Numeric formulas perform simple arithmetic or complex calculations involving many variables and use one or more of the arithmetic operators: + (addition), - (subtraction), * (multiplication), / (division), and ^ (exponentiation).

The following table shows some examples of simple numeric formulas:

Formula	Result
25+5	30
15+A:A1	20, if A:A1 contains 5
22*A:A1/A:A2	11, if A:A1 contains 5 and A:A2 contains 10

Text formulas

Text formulas automatically change or combine text entered in cells. In a text formula, you must enclose text in " " (quotation marks). Text formulas use & (ampersand) to combine strings of text.

The following table shows two examples of text formulas:

Formula	Result
+"New"&D6	New Totals, if D6 contains the text " Totals"
+"New"+" Totals"	New Totals

Logical formulas

Logical formulas use a logical operator or a logical @function to evaluate whether a condition is true or false. The formula result is 1 if the condition is true, and 0 if the condition is false. Logical formulas use the operators listed below to evaluate various conditions.

Operator	Result is true when
=	Values are equal
<	First value is less than second value
>	First value is greater than second value
<=	First value is less than or equal to second value
>=	First value is greater than or equal to second value
<>	Values are not equal
#AND#	Both conditions are true
#OR#	At least one condition is true
#NOT#	Condition is false (If the condition is true, the result is false)

The following table shows some examples of logical formulas:

Formula	Result
5>4	1 (True).
5>A:A1	1, if A:A1 is less than 5.
+A:A1=1#AND#A:A2=2	1, if A:A1 contains 1 and A:A2 contains 2. 0, if either A:A1 or A:A2 contains another value.
+A:A1=1#OR#A:A2=2	1, if A:A1 contains 1 or A:A2 contains 2.
#NOT#A:A1=0	1, if A:A1 contains any value other than 0 (zero).

{button ,AL('H_USING_FORMULAS_OVER;H_PARTS_OF_A_FORMULA_OVER;H_GUIDELINES_FOR_ENTERING_FORMULAS_OVER;H_ENTERING_A_FORMULA_STEPS',0)} [See related topics](#)

Parts of a formula

All formulas contain three basic elements: operands, operators, and separators.

Operands ————
Separators — (25 + 5) * 4
Operators ————

Operands

Operands are the values or text that the formula operates on.

<u>Oper</u> <u>and</u>	<u>Descriptio</u> <u>n</u>	<u>Examples</u>
Value	Number	450, -92, 7.1E+12
Text	Sequence of characters enclosed in double quotation marks	"Budget", "TOTAL", "1955 Hill Valley Road"

Although you can enter values or text for operands directly into a formula, you can often make a formula more useful by entering the addresses or names of cells that contain the values or text instead. Every time you change the data in a cell referred to by a formula, the result of the formula changes.

You can enter a cell or range address in a formula by typing it, or you can select the range with the mouse or keyboard so that 1-2-3 enters the address for you. Selecting a range helps you avoid typing errors.

Operators

Operators are mathematical symbols, text characters, or logical statements that tell 1-2-3 what to do with the operands in a formula.

<u>Type</u>	<u>Operators</u>	<u>Descriptio</u> <u>n</u>
Arithmetic operators	+, -, *, /, ^	Symbols for addition, subtraction , and so on
Text operator	&	Symbol for combining strings
Logical operators	=, <, >, <=, >=, <>	Symbols for equal to, less than, and so on
	#AND#, #OR#, #NOT#	Words set off with # that evaluate conditions

Parentheses

Parentheses let you combine various operations and multiple formulas in one formula. You can use parentheses in complex formulas to tell 1-2-3 the order in which you want the formulas calculated.

In the following example, the inside formula is set off from the outside formula with parentheses.

(A1+A2*(A3-A4))/A5

{button ,AL('H_WHEN_AND_HOW_FORMULAS_RECALCULATE_OVER;H_USING_FORMULAS_OVER;H_ENTERING_A_FORMULA_STEPS;H_TYPES_OF_FORMULAS_OVER;H_GUIDELINES_FOR_ENTERING_FORMULAS_OVER',0)} [See related topics](#)

Guidelines for entering formulas

Use these guidelines when entering a formula:

- Formulas can be up to 512 bytes in length.
- A formula can begin with a number or one of these characters: +, -, =, (, @, ., \$, or #.
- When the first element of a formula is a cell address or range name, begin the formula with +, -, =, (, or \$.
- When the first character in a text formula is a " (quotation mark), begin the formula with (or +.
- When a formula looks like a date (for example, 9/25/90), begin the formula with +.
- To enter an @function in a formula, you can select it with the @function selector. You can also type @, press F3 (NAME), and then select the @function.

Blank cells

1-2-3 assigns the value 0 to blank cells whose addresses are used in formulas and in most @functions except statistical and text @functions. Most statistical @functions ignore blank cells, and text @functions using blank cells evaluate to ERR.

{button ,AL('H_COMMON_ERRORS_IN_FORMULAS_OVER;H_ENTERING_A_FORMULA_STEPS;H_ENTERING_AN_ATFUNCTION_STEPS;H_USING_FORMULAS_OVER;H_TYPES_OF_FORMULAS_OVER;H_PARTS_OF_A_FORMULA_OVER',0)} See related topics

Entering a formula

You enter a formula in a cell much as you enter any data into a sheet. After you enter a formula in a cell, 1-2-3 displays the formula in the contents box and the formula's result in the cell.

1. Select the cell where you want to enter the formula.
2. Type + to start the formula.
3. Type operands, operators, and parentheses as needed.
4. To complete the formula, press ENTER.
5. (Optional) To display the result if 1-2-3 displays *** (asterisks), widen the column.

If the formula results in ERR, or 1-2-3 does not accept the formula, check for common errors.

{button ,AL('H_ENTERING_A_FORMULA_DETAILS',1)} [See details](#)

{button ,AL('H_COMMON_ERRORS_IN_FORMULAS_OVER;H_EDITING_A_FORMULA_STEPS;H_GUIDELINES_FOR_ENTERING_FORMULAS_OVER;H_PARTS_OF_A_FORMULA_OVER;H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_STEPS;H_SIZING_COLUMNS_STEPS;H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;H_USING_FORMULAS_OVER;H_USING_RANGE_ADDRESSES_IN_A_FORMULA_STEPS;H_123_PRINTING_CELL_COMMENTS_AND_FORMULAS_STEPS',0)} [See related topics](#)

Details: Entering a formula

Calculating numeric formulas

The number of decimal places 1-2-3 displays for a calculated value depends on the number format of the cell. 1-2-3 calculates the value to a precision of 15 digits regardless of how many it displays. Use an @function, such as @ROUND, to specify a precision of less than 15 digits.

Documenting a formula

You can annotate a formula by typing ; (semicolon) immediately after the formula and then typing the note. The note appears in the contents box only, unless you format the cell as text.

To add a comment to a cell containing a formula, use Range - Cell Comment.

Using formula markers

You can use formula markers to identify cells that contain formulas. Formula markers are turned off when you first start 1-2-3. To turn them on, use View - Set View Preferences.

Printing formulas

When you print a workbook, you can choose to print the formulas along with the cell contents. To print formulas, choose File - Preview & Page Setup, click the Include tab, and select "Formulas" in the "Show" list.

Formatting @function results

For selected @functions, 1-2-3 automatically formats the result using the number format of the specified arguments. For example, if A1..A4 is formatted as Japanese Yen, and you enter @SUM(A1..A4) in A5, 1-2-3 formats the result in A5 as Japanese Yen.

1-2-3 does not automatically format the @function result if you:

- formatted the cell before entering the @function in it
- specified arguments that are in a different file
- combined an @function that 1-2-3 formats with an @function that 1-2-3 doesn't format

{button ,AL('H_ENTERING_A_FORMULA_STEPS',1)} Go to procedure

{button ,AL(';H_CREATING_A_CELL_COMMENT_STEPS;H_PRINT_CHANGING_SELECTION_STEPS;H_SETTIN
G_VIEW_PREFERENCES_FOR_WORKBOOKS_STEPS;H_ENTERING_AN_ATFUNCTION_DETAILS;',0)} See
related topics

Using range names in a formula

You can use a range name in place of an address in a formula.

1. Enter the formula up to the operator or ((open parenthesis) that precedes the range name you want to enter.
2. Type the range name, or click the navigator and select the name from the list.
3. Complete the formula.

Tip When you are writing a formula, you can also press F3 (NAME) to see a list of range names for any active workbook.

{button ,AL('H_USING_RANGE_NAMES_IN_A_FORMULA_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_A_FORMULA_STEPS;H_USING_RANGE_ADDRESSES_IN_A_FORMULA_STEPS',0)}
[See related topics](#)

Details: Using range names in a formula

If you plan to use a range name in a formula, you can enter it as a placeholder in the formula before you define the range name. The formula results in ERR until you define the range name.

To locate and change a range name that appears in formulas, use Edit - Find & Replace.

If you delete a range name that a formula uses, 1-2-3 replaces the range name with its associated address. For example, suppose that SALES is the name of B14..H14, and that your sheet contains the formula @SUM(SALES). If you delete the name SALES, 1-2-3 changes @SUM(SALES) to @SUM(B14..H14).

{button ,AL('H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS',1)} [Go to procedure](#)

Referring to other workbook files in formulas

Formulas can refer to ranges in other workbook files as well as ranges in the current workbook. These formulas create links between workbook files.

Tip You can also create formula links between workbooks by copying the range to the clipboard, and choosing Edit - Paste Link.

1. Enter the formula up to the operator or ((open parenthesis) that precedes the workbook reference.
2. If the other workbook is visible, use the mouse to select the range.

Otherwise, type the workbook reference using this format:

+<<workbook.ext>>range

Substitute the name of the workbook, extension, and range that you want. For example,

+<<MYWORKBOOK.123>>@SUM(C10..P24)

3. Press ENTER.

{button ,AL('H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_A_FORMULA_STEPS;H_USING_FORMULAS_OVER;H_COPYING_DATA_FROM_123_WITH_DRAG_AND_DROP_STEPS;H_UPDATING_FILE_LINKS_STEPS',0)} [See related topics](#)

Details: Referring to other workbook files in formulas

Other ways to specify a range in another workbook file

Press CTRL+PG UP or CTRL+PG DN to go to the other workbook and then use the keyboard to select the range.

If the other workbook is active, and the range you want to select has an assigned name, you can press F3 (NAME), choose the workbook from the "In workbook" list, and then select the named range.

When you refer to data in another workbook file using the format <<workbook.ext>>range, you don't need to include the path if the file is in the directory for workbook files specified using File - User Setup - 1-2-3 Preferences (File Locations tab). Keep in mind that if you move the workbook, you need to update the reference to reflect the workbook's new location.

Updating file links

1-2-3 automatically updates all file links when you open a workbook that refers to other active workbooks if Recalculation is set to automatic in the workbook that you open. For more information, see [Setting recalculation defaults](#).

If you open a workbook that has links to a workbook on disk, and "Update links when opening workbooks" is not turned on with File - User Setup - 1-2-3 Preferences (General tab), you need to update the links manually so the workbook uses current data from the linked workbook. To update the links, use Edit - Manage Links. For more information, see [Updating file links](#).

{button ,AL('H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_STEPS',1)} [Go to procedure](#)

Editing a formula

1. Double-click the cell containing the formula, or select the cell and press F2 (EDIT).
2. Edit the formula.
3. Press ENTER.

{button ,AL('H_COMMON_ERRORS_IN_FORMULAS_OVER;H_USING_FORMULAS_OVER',0)} [See related topics](#)

Common errors in formulas

If a formula results in ERR, or if 1-2-3 beeps instead of accepting the formula, don't panic. Examine the formula for obvious errors such as extra spaces, missing operators, or missing parentheses.

When a formula results in ERR

<u>What happened</u>	<u>Try this</u>
You used zero as a denominator.	Don't divide by zero.
You used an <u>undefined range name</u> or text that you haven't yet defined as a range name.	Link the name with an address. For more information, see <u>Naming a range</u> .
In a <u>text formula</u> , you referred to a cell that contains a value.	Correct the formula to refer to a cell that contains text.
You referred to a workbook file that either doesn't exist or isn't in the default directory.	Re-create the workbook file or refer to an existing workbook file; or include the <u>path</u> to a workbook outside the default directory.
You moved data into the first or last cell of a range that is referred to in a formula.	Re-create the overwritten data in a new location and then edit the formula to refer to the new location.
You moved data into the first or last cell of a named range referred to in the formula.	Re-create the range name, and then edit the formula to refer to the range name.
There's not enough available memory to calculate the formula.	Try closing extra windows or other applications, or quitting and re-opening 1-2-3.

Other problems

<u>What happened</u>	<u>Try this</u>
Your <u>numeric formula</u> looks like a date to 1-2-3, for example 11/30, or 30-Aug (if Aug is a range name).	Enclose the formula in parentheses or start it with + or =. For example (11/30) or +30-Aug.
You entered a formula that begins with a range name, and it didn't evaluate.	Enclose the formula in parentheses or start it with +, -, or =.
You entered an address one way, for example with a sheet address, but 1-2-3 changed the way the address looks, or changed the address to a range name.	Don't worry. 1-2-3 sometimes adjusts references you enter to show what's relevant. For example, if you have only one sheet, 1-2-3 doesn't show sheet letters in the formula. This will not hurt your formulas.

Finding circular references

A circular reference is a formula that refers directly or indirectly to itself. For example, if you enter the formula +A1+1 in cell A1, you've created a direct circular reference.

When a formula contains a circular reference, the Circular reference button appears in the status bar. To locate a circular reference, click the button. 1-2-3 moves the cell pointer to the first circular reference.



{button ,AL('H_GUIDELINES_FOR_ENTERING_FORMULAS_OVER',0)} [See related topics](#)

Summing a range automatically

You can sum a range of data by entering a recognized [SmartLabel](#).



[Show me a QuickDemo](#)

1. Enter the data in the sheet.
2. To sum columns, select the cell to the left of where you want to display the sums.
To sum rows, select the cell above where you want to display the sums.
3. Enter the SmartLabel you want to use (total, subtotal, or grand total).
4. Press ENTER.

{button ,AL('H_SUMMING_A_RANGE_AUTOMATICALLY_DETAILS',1)} [See details](#)

{button ,AL('H_123_CREATING_A_SMARTLABEL_STEPS',0)} [See related topics](#)

Details: Summing a range automatically

There are nine SmartLabels: total, subtotal, grandtotal, average, maximum, minimum, median, standard deviation, and variance you can use to automatically create a formula below or to the right of a range. For more information, see [Working with SmartLabels](#).

How does 1-2-3 know what data to sum?

When you enter a SmartLabel such as total, subtotal, or grandtotal in a cell, 1-2-3 checks to see if there are numbers in columns above and to the right, or in rows below and to the left.

Note When you create a SmartLabel with a formula that includes @subtotal, 1-2-3 checks that range for any previous cells that include @subtotal. If there is a cell containing @subtotal, the range inserted into the SmartLabel's formula (in place of the 'list' argument) is a sub-range of the total range, starting from the cell below the previous @subtotal.

To sum columns, you must enter total, subtotal, or grandtotal to the left of the range where you want to create the sums.



To sum rows, enter total, subtotal, or grandtotal above the range where you want to create the sums.



When you sum columns, you can have up to 10 blank rows between the row where you want the totals to appear and the numbers in the columns above.

When you sum rows, you can have up to 10 blank columns between the column where you want the totals to appear and the numbers in the rows to the left.

Turning off automatic summing

To turn off automatic summing, deselect "Use SmartLabels to enter formulas and apply formats" on the 1-2-3 Preferences (General tab).

Automatic summing won't work if...

- You enter any word other than total, subtotal, grandtotal.
- The cells below (for rows) or to the right of (for columns) where you want to put the sum are not blank.
- You try to sum a [3D range](#). You must use a formula or @function instead.
- Automatic summing is turned off.

Related SmartIcons



Sums values above or to the left

{button ,AL('H_SUMMING_A_RANGE_AUTOMATICALLY_STEPS',1)} [Go to procedure](#)

Using range addresses in a formula

You can use a cell or range address in a formula.

1. Enter the formula up to the operator or ((open parenthesis) that precedes the cell or range address you want to enter.
2. Type the cell or range address.
3. Complete the formula.

{button ,AL('H_USING_RANGE_ADDRESSES_IN_A_FORMULA_DETAILS',1)} [See details](#)

{button ,AL('H_ENTERING_A_FORMULA_STEPS;H_USING_RANGE_NAMES_IN_A_FORMULA_STEPS;H_USING_FORMULAS_OVER',0)} [See related topics](#)

Details: Using range addresses in a formula

Other ways to enter a cell or range address in a formula

You can enter a cell or range address in a formula by selecting the range with the mouse or keyboard. When you select the range, 1-2-3 enters the address for you.

- To use the mouse, click the cell or drag to select a range.
- To use the keyboard, press `↓`, `←`, `→`, or another pointer-movement key to move the cell pointer to the cell. For a range, move to a cell at the corner of the range, press `.` (period), and then use a pointer-movement key to highlight the other cells.

{button ,AL('H_USING_RANGE_ADDRESSES_IN_A_FORMULA_STEPS',1)} [Go to procedure](#)

Updating file links

You can update links to all workbook files not in memory.

1. Choose Edit - Manage Links.



2. In the "Link type" list, select "1-2-3 file links."
3. Select the link you want to update.
4. Click Update All Now.
5. Click Done.

{button ,AL(`H_UPDATING_FILE_LINKS_DETAILS',1)} [See details](#)

{button ,AL(`;H_REFERRING_TO_OTHER_FILES_IN_FORMULAS_STEPS;H_UPDATING_LINKS_STEPS;H_USING_FORMULAS_OVER',0)} [See related topics](#)

Details: Updating file links**Automatically updating file links**

1-2-3 automatically updates all file links when you open a workbook that refers to other active workbooks if Recalculation is set to automatic in the workbook that you open. For more information, see [Setting recalculation defaults](#).

{button ,AL('H_UPDATING_FILE_LINKS_STEPS',1)} [Go to procedure](#)

Working with SmartLabels

Using [SmartLabels](#), you can automatically create formulas below or to the right of a range by entering a recognized label. These labels can have formulas, number formats, and synonyms associated with them. You can also customize the SmartLabels 1-2-3 provides or create your own SmartLabels.

SmartLabels are saved as part of 1-2-3, rather than the current workbook, so you can use SmartLabels with any workbook file. SmartLabels are case insensitive.

Predefined SmartLabels

There are nine predefined you can use to automatically create a formula below or to the right of a range. By default, SmartLabels do not apply number formats.

Label	Formula	Format	Synonyms
total	@sum(list)	None	totals
subtotal	@subtotal(list)	None	sub total
grandtotal	@grandtotal(list)	None	grand total
average	@avg(list)	None	avg
maximum	@max(list)	None	max
minimum	@min(list)	None	min
median	@median(list)	None	
standard deviation	@std(list)	None	std
variance	@var(list)	None	var

Turning off SmartLabels

You can turn off SmartLabels by choosing File - User Setup - 1-2-3 Preferences and deselecting "Use SmartLabels to enter formulas and apply formats." For more information, see [Details: Setting 1-2-3 Options](#).

How does 1-2-3 know what data to sum?

When you enter a SmartLabel such as total, subtotal, or grandtotal in a cell, 1-2-3 checks to see if there are numbers in columns above and to the right, or in rows below and to the left.

To sum columns, you must enter total, subtotal, or grandtotal to the left of the range where you want to create the sums.



To sum rows, enter total, subtotal, or grandtotal above the range where you want to create the sums.



When you sum columns, you can have up to 10 blank rows between the row where you want the totals to appear and the numbers in the columns above.

When you sum rows, you can have up to 10 blank columns between the column where you want the totals to appear and the numbers in the rows to the left.

Automatic summing won't work if...

- You enter any word other than total, subtotal, grandtotal.
- The cells below (for rows) or to the right of (for columns) where you want to put the sum are not blank.
- You try to sum a [3D range](#). You must use a formula or @function instead.
- Automatic summing is turned off.

{button ,AL('H_123_CREATING_A_SMARTLABEL_STEPS;H_123_EDITING_A_SMARTLABEL_STEPS;H_123_DELETING_A_SMARTLABEL_STEPS',0)} [See related topics](#)

SmartLabels Setup dialog box

Use this dialog box to create a custom SmartLabel or modify an existing SmartLabel.

Choose a task

[Creating a SmartLabel](#)

[Editing a SmartLabel](#)

[Deleting a SmartLabel](#)

{button ,AL('H_CREATING_CUSTOM_FILL_LISTS_OVER;H_Filling_Ranges_OVER',0)} [See related topics](#)

Creating a SmartLabel

1. From the File menu, choose User Setup, and then choose SmartLabels Setup.
2. Type a name for the custom SmartLabel in the "SmartLabel text" box.
3. (Optional) Select a number format.
4. Specify a formula for the SmartLabel.
 - You can type a formula in the "Formula" box.
 - You can click the "Select @Function" button to select the @function you want to use for the formula.



5. Click Add to add the new SmartLabel to the "All SmartLabels" box.
6. Click Done.

{button ,AL('H_123_CREATING_A_SMARTLABEL_DETAILS',1)} [See details](#)

{button ,AL('H_123_SELECTING_A_FUNCTION_FOR_A_SMARTLABEL_STEPS;H_123_WORKING_WITH_SMARTLABELS_OVER',0)} [See related topics](#)

Details: Creating a SmartLabel

SmartLabel text

Type a name for the SmartLabel.

All SmartLabels

All defined SmartLabels are listed in alphabetical order. When you select one of the SmartLabels in this list, 1-2-3 displays all the information associated with that SmartLabel in the appropriate fields.

Number format

Select the format you want to apply when the SmartLabel name is typed into the sheet. These formats correspond to the formats listed in the Frequently Used List on the Number format tab of the Range InfoBox. This list also appears on the status bar.

Decimals (spinner)

The default number format for a new SmartLabel is "None." If you select a format that requires decimals (Fixed, Scientific, Comma, Currency, Currency ISO, or Percent), the "Decimals" box appears.

Specify the number of decimal places you want to use. If you specify "0," decimal points and all numbers after them are removed. If you specify any other value, 1-2-3 adds the specified number of decimal places after the final numeric digit in each relevant condition of the code string.

Formula

Specify the formula you want to apply when the SmartLabel is typed into the sheet.

SmartLabels work best for list functions that work on values. For example, if you create a SmartLabel that uses @COUNT, and then try to use that SmartLabel on a column that contains only labels, nothing happens when you type the SmartLabel.

If you specify a SmartLabel in the sheet which uses an incorrect formula, 1-2-3 displays "ERR" in the cells of the target range. For more information, see [Common errors in formulas](#).

@Function button

Displays the Select @Function dialog box which lists @functions that use a "list" argument. For more information about @functions, see [Overview: @Functions](#)

Synonyms

Displays all of the SmartLabels that use the same format and formula as the SmartLabel selected in the "SmartLabel Text" box.

{button ,AL('H_123_CREATING_A_SMARTLABEL_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_SELECTING_A_FUNCTION_FOR_A_SMARTLABEL_STEPS;',0)} [See related topics](#)

Selecting an @function for a SmartLabel

Use the Select @Function dialog box to select an @function to use as the formula for the SmartLabel.

1. In the "@Functions" box, select the @function you want to associate with the SmartLabel.

The available @functions use a "list" argument, which works best, but you can use other @functions if you want.

Tip To see detailed information about the selected @function, click Help.

2. Click OK to return to the SmartLabels Setup dialog box.

Editing a SmartLabel

You can change the predefined SmartLabels that come with 1-2-3.

Note If you decide you want to reset a SmartLabel back to its original state, see [Working with SmartLabels](#) for a list of the predefined SmartLabels.

1. From the File menu, choose User Setup, and then choose SmartLabels Setup.
2. Select the SmartLabel you want to edit from the "All SmartLabels" box.
3. Change the SmartLabel text, number format, or formula associated with the SmartLabel.
4. Click Modify.
5. Click Done.

{button ,AL('H_123_SELECTING_A_FUNCTION_FOR_A_SMARTLABEL_STEPS;H_123_WORKING_WITH_SMAR
TLABELS_OVER',0)} [See related topics](#)

Deleting a SmartLabel

1. From the File menu, choose User Setup, and then choose SmartLabels Setup.
2. Select the SmartLabel you want to delete from the "All SmartLabels" box.
3. Click Delete.
4. Click Done.

{button ,AL('H_123_WORKING_WITH_SMARTLABELS_OVER',0)} [See related topics](#)

Overview: Using SmartIcons

SmartIcons are buttons that represent mouse shortcuts for 1-2-3 actions and commands. When you first load 1-2-3, a set of SmartIcons appears in a bar at the top of the workspace.



To use an icon, simply click it.

To tell you what an icon does, bubble help appears by default when you position the mouse pointer over an icon. You can hide or show SmartIcons bubble help, or the set of SmartIcons.



Sets of SmartIcons

You can display several sets of icons at a time.

The set of icons that appears in the workspace changes depending on what is currently selected. For example, the set of icons that appears when a range is selected is different from the set that appears when a chart is selected.

You can change which set of SmartIcons is displayed at any given time.

You can also change the position of each set of SmartIcons in the workspace.

```
{button ,AL('H_HIDING_AND_SHOWING_SMARTICONS_STEPS;H_PLACING_SMARTICONS_IN_THE_WORKSPACE_STEPS;H_SELECTING_AND_DISPLAYING_A_SET_OF_SMARTICONS_STEPS;H_HIDING_AND_SHOWING_BUBBLE_HELP_STEPS;H_SIZING_SMARTICONS_STEPS;H_CUSTOMIZING_SMARTICONS_OVER;',0)}  
See related topics
```

Hiding and showing a set of SmartIcons

You can hide or show SmartIcons by doing one of the following:

- Choose View - Hide/Show SmartIcons.
- Click the Control menu for the set of SmartIcons, located at the far left of the set, or click the right mouse button when the pointer is on the set. Then choose to hide the particular set of SmartIcons, or all SmartIcons.

```
{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;H_PLACING_SMARTICONS_IN_THE_WORKSPACE_STEPS;H_SELECTING_AND_DISPLAYING_A_SET_OF_SMARTICONS_STEPS;',0)} See related topics
```

Selecting and displaying a set of SmartIcons

You can choose which set of SmartIcons to display, and when each set is displayed.

1. Choose File - User Setup - SmartIcons Setup.



2. Under Bar to setup, choose the set of SmartIcons to display from the "Bar name" list.
3. Select an option from the "Bar can be displayed when context is" list.
4. Make sure "Bar is enabled to display during its context" is selected.
5. Click OK.

{button ,AL('H_SELECTING_AND_DISPLAYING_A_SET_OF_SMARTICONS_DETAILS',1)} [See details](#)

{button ,AL('H_HIDING_AND_SHOWING_SMARTICONS_STEPS;H_PLACING_SMARTICONS_IN_THE_WORKSPACE_STEPS;H_USING_SMARTICONS_OVER',0)} [See related topics](#)

Details: Selecting and displaying a set of SmartIcons

Options for setting up SmartIcons bars

- Bar name -- When you select a set of SmartIcons from this list, the set appears across the top of the dialog box.
- Bar can be displayed when context is -- You can decide when to display a set of SmartIcons: always; when you're working in a range, a sheet, a chart, a map, a drawing, a web table, a query table, an OLE server, or an OLE object; or when you're using print preview.

For example, you are working with a map and want a custom set of map SmartIcons to display. First, select the custom set of SmartIcons in the "Bar name" list. Then select "A Map" from the "Bar can be displayed when context is" list. Now you can display the custom set when you're working on a map.

- Bar is enabled to display during its context -- This option acts as an on/off display switch. If selected, it displays a specific set of SmartIcons whenever you're working with a specific type of data. Deselect this option to turn off the display of a specific set of SmartIcons.

{button ,AL('H_SELECTING_AND_DISPLAYING_A_SET_OF_SMARTICONS_STEPS',1)} [Go to procedure](#)

Moving a set of SmartIcons

You can move a set of SmartIcons wherever you want on the desktop.

1. Position the mouse pointer under the Control menu at the far left of the displayed set of SmartIcons.
The mouse pointer changes to the shape of a hand.
2. Drag the set of SmartIcons to the new location.
3. Release the mouse button.

{button ,AL('H_PLACING_SMARTICONS_IN_THE_WORKSPACE_DETAILS',1)} [See details](#)

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;H_HIDING_AND_SHOWING_SMARTICONS_STEPS;H_SELECTING_AND_DISPLAYING_A_SET_OF_SMARTICONS_STEPS',0)} [See related topics](#)

Details: Moving a set of SmartIcons**Moving the set of SmartIcons to a fixed position**

You can position SmartIcons at the edges of the 1-2-3 window in a fixed position (left, right, top, or bottom). If you drag the SmartIcons bar to an edge, it will snap to and stay with that edge, even when the 1-2-3 window is moved.

Moving the set of SmartIcons to a floating position

You can display SmartIcons in a floating position anywhere inside or outside the 1-2-3 window. Dragging SmartIcons to a place other than an edge creates a floating palette. You can also drag one set of SmartIcons over another.

{button ,AL('H_PLACING_SMARTICONS_IN_THE_WORKSPACE_STEPS',1)} [Go to procedure](#)

Overview: Customizing SmartIcons

1-2-3 includes many standard SmartIcons and sets of SmartIcons. You can use the icons and sets of icons as they are, or you can change them to suit your needs. You can create and edit custom icons to be part of a standard 1-2-3 set, or you can create custom sets of SmartIcons. You can also:

- Add SmartIcons to a set
- Move SmartIcons within a set
- Remove SmartIcons from a set
- Delete individual SmartIcons or entire sets of SmartIcons
- Save new or changed SmartIcons and sets of SmartIcons
- Attach scripts or macros to SmartIcons

{button ,AL('H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_STEPS;H_CREATING_AN_ICON_STEPS;H_EDITING_AN_ICON_STEPS;H_MOVING_AN_ICON_WITHIN_A_SET_OF_SMARTICONS_STEPS;H_REMOVING_AN_ICON_FROM_A_SET_OF_SMARTICONS_STEPS;H_SAVING_A_SET_OF_SMARTICONS_STEPS;H_ATTACHING_A_SCRIPT_TO_AN_ICON_STEPS;H_DELETING_A_SET_OF_SMARTICONS_STEPS','0')} See related topics

Adding an icon to a set of SmartIcons

You can add an icon to a set of SmartIcons.

1. Choose File - User Setup - SmartIcons Setup.



2. From the "Bar name" list, select the set of SmartIcons to which you want to add the icon.
3. Click an icon in the "Available icons" list.
4. Drag the selected icon to the position you want in the displayed set.
5. Do one of the following:

- Click Save Set if you want to save the modified set of SmartIcons with a new name.
- Click OK to save the modified set with the current name, and display the modified set.

Note When you click OK, 1-2-3 replaces the old set of SmartIcons with the modified set. If you think you will want to use the old set again, click Save Set and give the modified set a different name.

{button ,AL('H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_DETAILS',1)} [See details](#)

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_MOVING_AN_ICON_WITHIN_A_SET_OF_SMARTICONS_STEPS;H_REMOVING_AN_ICON_FROM_A_SET_OF_SMARTICONS_STEPS;H_SAVING_A_SET_OF_SMARTICONS_STEPS;',0)} [See related topics](#)

Details: Adding an icon to a set of SmartIcons

Positioning an icon in the set

To position the new icon before an icon that already appears in the set, drag the new icon to the left of that icon.

To position the new icon after an icon that already appears in the set, drag the new icon to the right of that icon.

Adding a spacer icon

You can also add a spacer icon, which helps you to visually group the icons in the set.



{button ,AL('H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_STEPS',1)} [Go to procedure](#)

Creating an icon

You create a new icon by editing and renaming a standard 1-2-3 icon, or by creating a new icon from scratch. When you save an icon, you give it a file name with the .BMP file extension.

1. Choose File - User Setup - SmartIcons Setup.



2. Click Edit Icon.
3. Click Create a New Blank Icon to create a new icon, or select an icon to modify from the "Available icons you can edit or copy" list.
4. Use the mouse buttons to apply or change colors.
5. Enter the icon's bubble help in the "Description" box.
6. Click Save As to name and save the new icon.
7. Attach a macro or script to the icon that will run when the icon is clicked.
8. If you make further changes to the icon, click Save to preserve the changes.
9. Click Done to return to the SmartIcons Setup dialog box.

The new icon appears in the list of available icons.

10. Click OK.

{button ,AL('H_CREATING_AN_ICON_DETAILS',1)} See details

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;H_EDITING_AN_ICON_STEPS;',0)} See related topics

Details: Creating an icon

Applying colors

You create or edit an icon by applying or changing color. To select a color, click the "Left" or "Right" box under Mouse button colors and click a color from the palette that appears.



To apply the color, use the left or right mouse button and click where you want to apply color on the icon under "Picture editor." 1-2-3 applies the color and updates the Preview icon as you go along.

Starting from scratch

To create a new custom icon, click Create a New Blank Icon. 1-2-3 displays a blank icon under "Picture editor."

Creating a new icon from an existing one

To create a new icon based on an existing one, select an icon from the "Available icons you can edit or copy" list. If you select a standard 1-2-3 icon, 1-2-3 copies the icon, but not the file name, and displays it under "Picture editor." You must give this icon a new file name when you save it.

{button ,AL('H_CREATING_AN_ICON_STEPS',1)} [Go to procedure](#)

Editing an icon

You can modify an existing custom icon by changing the icon's picture, colors, bubble help, or the attached script or macro. While you cannot modify the standard 1-2-3 SmartIcons, you can create a custom icon by copying a standard icon and modifying the copy.

1. Choose File - User Setup - SmartIcons Setup.



2. Click Edit Icon.
3. Select the icon in the "Available icons you can edit or copy" list.
The icon appears under "Picture editor."
4. Edit the icon by using the mouse buttons to apply or change colors.
5. (Optional) Change the icon's bubble help in the "Description" box.
6. Click Save As to name and save the new icon.
7. Attach a macro or script to the icon that will run when the icon is clicked.
8. If you make any further changes to the icon, click Save to preserve the changes.
9. Click Done to return to the SmartIcons Setup dialog box.
The new icon appears in the list of available icons.
10. Click OK.

{button ,AL('H_EDITING_AN_ICON_DETAILS',1)} See details

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_CREATING_AN_ICON_STEPS;',0)} See related topics

Details: Editing an icon

Applying colors

You edit an icon by applying or changing color. To select a color, click the "Left" or "Right" box under Mouse button colors and click a color from the palette that appears.



To apply the color, use the left or right mouse button and click where you want to apply color on the icon under "Picture editor." 1-2-3 applies the color and updates the the Preview icon as you go along.

{button ,AL('H_EDITING_AN_ICON_STEPS',1)} [Go to procedure](#)

Moving an icon within a set of SmartIcons

You can move an icon to a new position within a set of SmartIcons.

Tip If the set of SmartIcons containing the icon you want to move is displayed in the 1-2-3 window, hold down CTRL + drag the icon to its new position in the displayed set.

1. Choose File - User Setup - SmartIcons Setup.



2. From the "Bar name" list, select the set of SmartIcons that contains the icon you want to move.
3. Click the icon you want to move, and drag it to its new location in the set of SmartIcons.
4. Do one of the following:
 - Click Save Set if you want to save the modified set of SmartIcons with a new name.
 - Click OK to save the modified set with the current name, and display the modified set.

Note When you click OK, 1-2-3 replaces the old set of SmartIcons with the modified set. If you think you will want to use the old set again, click Save Set and give the modified set a different name.

{button ,AL('H_MOVING_AN_ICON_WITHIN_A_SET_OF_SMARTICONS_DETAILS',1)} [See details](#)

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_REMOVING_AN_ICON_FROM_A_SET_OF_SMARTICONS_STEPS;H_SAVING_A_SET_OF_SMARTICONS_STEPS;H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_STEPS',0)} [See related topics](#)

Details: Moving an icon within a set of SmartIcons

You don't need to be in the SmartIcons Setup dialog box to move an icon within a set of SmartIcons. Just hold CTRL as you drag the icon to its new position within a set of SmartIcons in your workspace.

{button ,AL('H_MOVING_AN_ICON_WITHIN_A_SET_OF_SMARTICONS_STEPS',1)} [Go to procedure](#)

Removing an icon from a set of SmartIcons

You can remove an icon from a set of SmartIcons.

1. Choose File - User Setup - SmartIcons Setup.



2. From the "Bar name" list, select the set of SmartIcons that contains the icon you want to remove.
3. Click the icon you want to remove, and drag it off the set.
4. Do one of the following:

- Click Save Set if you want to save the modified set of SmartIcons with a new name.
- Click OK to save the modified set with the current name, and display the modified set.

Note When you click OK, 1-2-3 replaces the old set of SmartIcons with the modified set. If you think you will want to use the old set again, click Save Set and give the modified set a different name.

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_STEPS;H_SAVING_A_SET_OF_SMARTICONS_STEPS','0')} [See related topics](#)

Deleting a set of SmartIcons

If you delete a set of SmartIcons, 1-2-3 deletes the set but not the individual icons.

1. Choose File - User Setup - SmartIcons Setup.



2. Click Delete Set.
3. Select the set(s) of SmartIcons you want to delete.
4. Click OK.

1-2-3 deletes the selected sets of SmartIcons and returns you to the SmartIcons Setup dialog box.

5. Click OK.

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;H_SAVING_A_SET_OF_S
MARTICONS_STEPS;',0)} [See related topics](#)

Saving a set of SmartIcons

You can save a modified set of SmartIcons with the current name or a new name. You can also save a custom set of SmartIcons.

1. Choose File - User Setup - SmartIcons Setup.



2. Select a set of SmartIcons from the "Bar name" list.
3. Add, move, or remove icons to create the set you want.
4. Click Save Set.
1-2-3 asks if you want to overwrite the current set, or create a new one.
5. Do one of the following:
 - Click Overwrite to save the changed set of SmartIcons under the current name. Go to step 9.
 - Click Save As New to save the set of SmartIcons under a new name. Go to step 6.
6. Enter a name for the set of SmartIcons in the "SmartIcons bar name" box.
7. Enter a new file name in the "SmartIcons file name" box.
8. (Optional) Click Browse to change the directory in which 1-2-3 saves the new set of SmartIcons.
9. Click OK.
1-2-3 saves the set of SmartIcons and returns you to the SmartIcons Setup dialog box.
10. Click OK.

{button ,AL('H_SAVING_A_SET_OF_SMARTICONS_DETAILS',1)} [See details](#)

{button ,AL('H_USING_SMARTICONS_OVER;H_CUSTOMIZING_SMARTICONS_OVER;H_ADDING_AN_ICON_TO_A_SET_OF_SMARTICONS_STEPS;H_DELETING_A_SET_OF_SMARTICONS_STEPS;H_MOVING_AN_ICON_WITHIN_A_SET_OF_SMARTICONS_STEPS;H_REMOVING_AN_ICON_FROM_A_SET_OF_SMARTICONS_STEPS;',0)} [See related topics](#)

Details: Saving a set of SmartIcons**Naming a set of SmartIcons**

When you save a set of SmartIcons, the name appears in the "Bar name" list in the SmartIcons Setup dialog box.

You save a set of SmartIcons as an .SMI file. You save a custom icon as a .BMP file.

{button ,AL('H_SAVING_A_SET_OF_SMARTICONS_STEPS',1)} Go to procedure

Changing the display size of SmartIcons

You can change the default display size for SmartIcons.

1. Choose File - User Setup - SmartIcons Setup.



2. Under SmartIcons preferences, select a size in the "Icon size" list.
3. Click OK.

{button ,AL('H_SIZING_SMARTICONS_DETAILS',1)} [See details](#)

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;',0)} [See related topics](#)

Details: Changing the display size of SmartIcons

Selecting the size

You may want to change the displayed size of SmartIcons based on the type of display adaptor and monitor you use, or just to make it easier to see them clearly. By default, SmartIcons are displayed as Regular. You can change the display size to Large.



{button ,AL('H_SIZING_SMARTICONS_STEPS',1)} [Go to procedure](#)

SmartIcons Setup dialog box

You can review all sets of SmartIcons from this dialog box by selecting the icon sets from the "Bar name" list one at a time. The SmartIcons set you select appears at the top of the dialog box.

You can then add, move, and remove icons in the set, and save or delete sets of SmartIcons. You can also create and edit custom icons from this dialog box.

Choose a task

[Adding an icon to a set of SmartIcons](#)

[Moving an icon within a set of SmartIcons](#)

[Removing an icon from a set of SmartIcons](#)

[Selecting and displaying a set of SmartIcons](#)

[Hiding and showing a set of SmartIcons](#)

[Hiding and showing bubble help](#)

[Changing the display size of SmartIcons](#)

{button ,AL(';H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER;H_CREATING_AN_ICON_STEPS;H_EDITING_AN_ICON_STEPS;H_DELETING_A_SET_OF_SMARTICONS_STEPS;H_SAVING_A_SET_OF_SMARTICONS',0)} [See related topics](#)

Attaching a script or macro to an icon

You must attach a script or macro to a custom icon before you can use the icon.

Note To run a script attached to an icon, you must open the script file first. To change the script attached to an icon, click Detach first, and then attach the new script.

1. Choose File - User Setup - SmartIcons Setup.



2. Click Edit Icon.
3. Create or edit the icon.
4. Save and name the new icon.
5. Click Attach Script.
6. Select "Script" or "Macro."
7. Select the script or enter the macro you want to attach to the icon.
8. Click Attach to return to the Edit SmartIcons dialog box.
9. Enter the icon's bubble help in the "Description" box if you haven't already.
10. Click Save.
11. Click Done to return to the SmartIcons Setup dialog box, and then click OK.

{button ,AL('H_CREATING_AN_ICON_STEPS;H_CUSTOMIZING_SMARTICONS_OVER;H_EDITING_AN_ICON_STEPS','0)} [See related topics](#)

Edit SmartIcons dialog box

You can create, edit, attach scripts and macros to, and save icons from this dialog box. You must attach a script or macro to a custom icon to use the icon.

Choose a task

[Creating an icon](#)

[Editing an icon](#)

[Attaching a script or macro to an icon](#)

{button ,AL('H_CUSTOMIZING_SMARTICONS_OVER;H_USING_SMARTICONS_OVER',0)} [See related topics](#)

Hiding and showing bubble help

By default, 1-2-3 automatically displays bubble help when you position the mouse pointer over a particular icon or InfoBox tab. You can hide the bubble help if you want.

1. Choose File - User Setup - SmartIcons Setup.



2. Under SmartIcons preferences, do one of the following:
 - Deselect "Show icon descriptions" to hide the bubble help.
 - Select "Show icon descriptions" to show the bubble help.
3. Click OK.

{button ,AL('H_USING_SMARTICONS_OVER;H_CUSTOMIZING_SMARTICONS_OVER;',0)} [See related topics](#)

Overview: 1-2-3 macros

A macro is a series of commands that automates a 1-2-3 task. You can use macros to automate repetitive tasks, streamline complex procedures, and create applications based on 1-2-3.

Creating macros

You create a macro by entering macro commands in a sheet. You can create macros to use just once or to use over and over again.



[See related topics](#)

Running and debugging macros

You run macros either by explicitly starting them or by having them start automatically when you open a workbook. If a macro you create doesn't work correctly, you need to find the error and fix it, a process called debugging.

Note You cannot undo macros.



[See related topics](#)

Using LotusScript

You can also automate your work using LotusScript, a scripting language built into all Lotus SmartSuite products. Using LotusScript, you can record keystrokes, mouse actions, and menu commands. LotusScript comes with a complete development environment for creating, debugging, and running scripts.

You can combine macros and scripts. You can also rewrite your macros in LotusScript.



[See related topics](#)

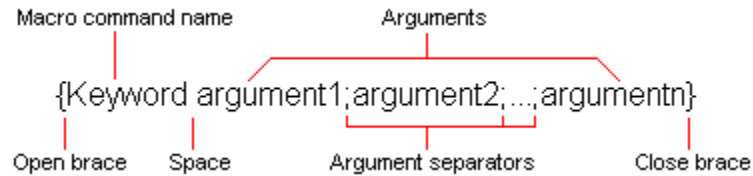
Getting additional Help on macros

1-2-3 provides Help that explains how to use macros, but does not come with Help on individual macro commands. However, you can use the World Wide Web or call Lotus Customer Support to get macro command Help. See [Installing Help on macro commands](#).

{button ,AL('H_MACRO_COMPATIBILITY_OVER;H_123_RELEASE_5_MACRO_COMMAND_EQUIVALENTS_OVE
R;H_OBSOLETE_MACINTOSH_MACROS_OVER',0)} [See related topics](#)

Parts of a macro

A macro command contains three parts: a keyword, arguments, and argument separators. A macro is made up of one or more macro commands.



Keyword

The first word in a macro command is the keyword, the macro command name. The keyword tells 1-2-3 what action to perform.

Arguments

An argument is the information you want 1-2-3 to use when it performs the command. Depending on the particular macro, an argument can be a single value, a range of cells, text, or a formula.

Arguments can be required or optional. You must enter required arguments, but you can omit the optional ones. Optional arguments are enclosed in [] (brackets) in the descriptions you see in the Macro Keywords dialog box and in the Help on individual macro commands.

If a macro contains more than one optional argument, you must use the arguments sequentially. You can't use an optional argument without using the optional arguments that precede it. You can, however, use an optional argument without using subsequent optional arguments.

Argument separators

When you use more than one argument with a macro, you separate the arguments with an argument separator, typically a ; (semicolon). You can specify a different argument separator using the regional settings (country settings) in your operating system.

Quotation marks

Quotation marks enclose the text for text arguments. For example, the following macro uses the text argument Sales Forecast:

```
{EDIT-FIND "Sales Forecast"}
```

1-2-3 assumes that text not enclosed in quotation marks is a range name.

```
{button ,AL('H_ARGUMENT_TYPES_OVER;H_CHANGING_THE_ARGUMENT_SEPARATOR_STEPS;H_INSTALLING_MACRO_REFERENCE_HELP_STEPS',0)} See related topics
```

Writing a macro

You write macros by entering macro commands, with their arguments, in consecutive cells of a sheet.

1. Select the cell where you want to enter a macro command.
2. Type {
3. Press F3 (NAME) to display the Macro Keywords dialog box.
4. If you know the category of the macro command you want, select it in the "Category" list.
5. Select the keyword from the "Macro keywords" list.
6. Click OK.
The macro command, with argument placeholders, appears in the cell.
7. Replace any argument placeholders with the appropriate arguments.
8. Press ENTER.
9. Repeat these steps for each command in the macro.

After you create the macro, you can assign it a name, document it, and save it.

{button ,AL('H_WRITING_A_MACRO_DETAILS',1)} See details

{button ,AL('H_COMMON_ERRORS_IN_MACROS_OVER;H_NAMING_AND_DOCUMENTING_A_MACRO_STEPS
;H_SAVING_A_MACRO_STEPS;H_SYNTAX_RULES_FOR_MACROS_OVER;H_PARTS_OF_A_MACRO_OVER
;H_123_MACROS_OVER;H_ARGUMENT_TYPES_OVER;H_CALLING_A_SCRIPT_FROM_A_MACRO_STEPS;' ,0)} See related topics

Details: Writing a macro

You can enter macro commands in the workbook where you store your work or in a macro library, a workbook where you store only macros.

Entering macros by typing

You can also enter a macro command by typing the keyword and the appropriate arguments directly in the cell, and enclosing the entire expression in { } (braces).

Entering multiple macro commands in one cell

You can enter more than one command in a cell, up to 512 characters. In most cases, however, it's best to enter one command per cell, to make the macro easier to read and debug. Some commands, such as the {IF} command, must be followed by at least one more command in the same cell.

Checking the syntax of the macro

1-2-3 doesn't check the syntax of a macro command until you run the macro containing the command. When you run a macro that has incorrect syntax, 1-2-3 displays a message with the name and location of the incorrect command. You can use this information to debug the macro.

Using a macro with just one workbook

If you use a macro with only one workbook, it's simplest to enter the macro in that workbook, along with the data the workbook contains. However, when entering data, you must be careful not to overwrite your macros, and vice versa.

To keep your data and macros intact, follow these guidelines:

- Put macros in a separate sheet rather than in a sheet containing other data. You can name the sheet to make it easier to find.
- If you want to put macros and other data in the same sheet, put the macros below and to the right of the data area. If you don't, inserting or deleting rows and columns in the data area may damage your macros.

If you put the macros and other data in the same sheet, name a cell at the beginning of the macros area with a range name such as Macros. This convention makes it easier to move between the macros area and the data area.

Using a macro with several workbooks

If you use a macro with several workbooks, you can store the macro in a macro library. A macro library is a workbook that contains only macros. You can organize a macro library by using a separate sheet for each group of related macros.

The macro library workbook must be active before you can run a macro stored there. However, you run the macro from the workbook you want it to work on.

{button ,AL('H_WRITING_A_MACRO_STEPS',1)} [Go to procedure](#)

Syntax rules for macros

Starting and ending macros

- Start a macro command with { (open brace), and end it with } (closing brace).
- End a macro with a blank cell or a {QUIT} command.
- Start and end each macro command in the same cell.

Correct		{CONTENTS REPORT;INCOME;12;117}
Incorrect		{CONTENTS REPORT; INCOME;12;117}

Entering macro keywords

- Type the keyword immediately after the open brace, leaving no spaces before the keyword or in the keyword.
- Don't put any spaces between hyphenated words in multi-word keywords, and don't use underscores instead of hyphens.
- You can type the keyword in any combination of uppercase and lowercase letters.

Using spaces

- If you include arguments in the command, separate the keyword from the first argument with one space. If you include no arguments, include no spaces.
- Do not leave any spaces between arguments.
- Other than a single space between the keyword and the first argument, the command should have no spaces except those that are part of text enclosed in " " (quotation marks).

Using arguments

- If a command includes two or more arguments, use an argument separator to separate each argument from the one that follows.
- If you omit an optional argument between two other arguments, enter an argument separator as a placeholder. For example, in the macro command {CONTENTS REPORT;INCOME;;117}, the argument separator takes the place of the omitted optional argument; 117 is the fourth argument.
- In text arguments, enclose literal text in quotation marks. 1-2-3 reads text not enclosed in quotation marks as a range name.
- To enter a quotation mark within text already enclosed in quotation marks, type two quotation marks. For example, to make the macro display the text Now using a "Custom" Macro, use the following command: {INDICATE "Now using a ""Custom"" Macro"}.

Working with text files

- You must open a text file with {OPEN} before using any other text-file manipulation commands.
 - Only one text file can be open at a time. If a text file is open when 1-2-3 reaches an {OPEN} command, 1-2-3 automatically closes the first text file before opening the new one. If a text file is open when a macro ends, however, 1-2-3 does not automatically close the text file. You must include a {CLOSE} command in the macro to close the file.
 - After successfully executing a text-file manipulation command, 1-2-3 goes directly to the next cell in the macro, ignoring any macro instructions after the command in the same cell. If the command returns an error, the macro continues in the same cell as the command.
 - Although some text-file manipulation commands change the contents of cells, 1-2-3 does not automatically recalculate formulas after executing these commands, even when sheet recalculation is set to Automatic. To force recalculation after a text-file manipulation command, follow the command with {CALC}.
 - The first byte-pointer position in a text file is reported as 0, not 1.
-

```
{button ,AL('H_123_MACROS_OVER;H_WRITING_A_MACRO_STEPS;H_COMMON_ERRORS_IN_MACROS_OV  
ER;H_PARTS_OF_A_MACRO_OVER;H_CHANGING_THE_ARGUMENT_SEPARATOR_STEPS;H_ARGUMENT  
_TYPES_OVER;',0)} See related topics
```

Naming and documenting a macro

You name a macro so that you can easily identify and run it. You document a macro to help you or others remember what the macro does.

Naming a macro

1. Select the first cell of the macro.
2. Choose Range - Name, and enter a name for the macro in the "Name" box.
You can enter either a multiple-character name, just as you would use for a range, or you can enter a backslash macro name.
3. Click OK.

Documenting a macro

1. Select the cell immediately to the left of the macro's first cell.
2. If you are documenting a backslash name, type ' (apostrophe) in the cell.
3. Type the name of the macro, and press ENTER.
4. In the rows above the macro, enter a brief description of the macro's function.
5. (Optional) To document macro commands or subroutines, enter a description in the cells to the right of the commands.

```
{button ,AL('H_NAMING_AND_DOCUMENTING_A_MACRO_DETAILS',1)} See details  
{button ,AL('H_NAMING_AND_DOCUMENTING_A_MACRO_EX',1)} See example  
{button ,AL('H_123_MACROS_OVER;H_SAVING_A_MACRO_STEPS',0)} See related topics
```

Details: Naming and documenting a macro

Multiple-character names

A multiple-character name is an ordinary range name. This type of name is convenient for indicating what the macro does. You run a range-name macro with ALT+F3 (RUN) or Edit - Scripts & Macros - Run.

Backslash names

A backslash name consists of a \ (backslash) followed by a single letter; for example, \d. To run a macro with a backslash name, press CTRL+ the letter; for example, CTRL+D. Naming a macro \0 (backslash zero) creates an autoexecute macro that runs automatically every time you open the workbook containing the macro.

If you use \ (backslash) and a letter to name a macro, and this letter corresponds to a keyboard shortcut using CTRL+ the letter, then the macro overrides the keyboard shortcut. For example, the keyboard shortcut for copying the current selection is CTRL+C. If you name a macro \c, pressing CTRL+C will run the macro instead of copying the current selection.

Duplicate names

When naming your macros, be careful not to use names that duplicate built-in 1-2-3 script commands, macro commands, or key names. For example, if you name a macro PRINT and later try to use the 1-2-3 {PRINT} macro command, 1-2-3 will run your macro and not the 1-2-3 {PRINT} macro.

If you assign a name to a macro that is the same as a shortcut for a global script, 1-2-3 will run the script. For example, if you name a macro \d and also assign \d as the shortcut to a script, pressing CTRL+D will run the script, not the macro.

If you try to run a macro when macros with the same name exist in two or more active workbooks, 1-2-3 runs the macro in the current workbook.

{button ,AL('H_NAMING_AND_DOCUMENTING_A_MACRO_STEPS',1)} [Go to procedure](#)

{button ,AL('H_CREATING_AN_AUTOEXECUTE_MACRO_STEPS',0)} [See related topics](#)

Example: Documenting a macro

The following sheet shows a small macro and its documentation. The macro name is documented to the left of the macro, the description of the macro appears above, and each command has a short description to the right:

A	B	C
	This macro enters the company name in the current cell	
Company	{CELL-ENTER "Howard's Fancy Hats"}	Enters name
	{STYLE-FONT-ALL "CaslonOpenFace";24}	Sets font and point size
	{COLUMN-WIDTH 30}	Widens column to fit

Saving a macro

It's a good idea to save a new macro before you run it for the first time. You save a macro the same way you save any other data: save the workbook containing the macro.

1. Make sure the cell pointer is in the workbook you want to save.
2. Choose File - Save to save the workbook containing the macro.



{button ,AL('H_123_MACROS_OVER;H_SAVING_A_NEW_WORKBOOK_STEPS;H_SAVING_AN_EXISTING_FILE_STEPS;',0)} [See related topics](#)

Running a macro

To make a macro perform the commands you entered, you run it. The workbook containing the macro must be active before you can run a macro in that workbook.

Caution You cannot undo a macro.

1. If necessary, move the [cell pointer](#) to the sheet area you want the macro to act on.
2. Choose Edit - Scripts & Macros - Run.



3. Select "Macro."
4. If the macro you want is in a different workbook, select that workbook in the "From" list.
5. Do one of the following:
 - In the "Range" box, type the range name or address of the macro to run or use the [range selector](#) to specify the range.
 - Select the macro name from the list of range names.
6. Click Run.

Note If the macro doesn't run as expected, or if you see a message when you run the macro, you need to debug the macro to find and fix the problem.

{button ,AL('H_RUNNING_A_MACRO_DETAILS',1)} [See details](#)

{button ,AL('H_123_MACROS_OVER;H_DEBUGGING_A_MACRO_STEPS;H_COMMON_ERRORS_IN_MACROS_OVER;H_STOPPING_A_RUNNING_MACRO_STEPS;H_123_RUNNING_A_SCRIPT_STEPS;',0)} [See related topics](#)

Details: Running a macro

Other ways to run a macro

To run an unnamed macro, select the first cell of the macro and press ALT+F3 (RUN).

To run a backslash macro, press CTRL and the single-letter name simultaneously. For example, to run a macro named \a, press CTRL+A. The macro overrides any keyboard shortcut assigned to that letter.

Recalculating during a macro

Whether 1-2-3 recalculates formulas while a macro is running depends on the recalculation setting in the most recently opened workbook.

- When you set recalculation to Manual, 1-2-3 recalculates formulas only when it encounters a {CALC}, {RECALC}, or {RECALCCOL} command in a macro, or when you press F9 (CALC) during an interactive macro.
- When you set recalculation to Automatic, 1-2-3 recalculates formulas automatically whenever a command in a macro changes data in the workbook, with the exceptions noted below.

In general, macros run faster with recalculation set to Manual. When recalculation is set to Manual, however, a macro may produce inaccurate results if the macro changes data and then uses the result of a formula that depends on that data. You can avoid inaccurate results by putting a {CALC}, {RECALC}, or {RECALCCOL} command in the macro at any point where data is likely to change.

Commands that don't cause automatic recalculation

The following macro commands change data but don't cause an automatic recalculation, even with recalculation set to Automatic:

{ALERT}	{FILESIZE}	{LET}
{CHOOSE-FILE}	{FOR}	{LOOK}
{CHOOSE-ITEM}	{GET}	{PUT}
{CHOOSE-MANY}	{GET-FORMULA}	{READ}
{CHOOSE-ONE}	{GET-LABEL}	{READLN}
{CONTENTS}	{GET-NUMBER}	{SET}
{DEFINE}	{GET-RANGE}	
{DIALOG}	{GETPOS}	

Instead of recalculating data immediately after performing one of these commands, 1-2-3 defers recalculation until one of the following happens:

- You press ENTER or a pointer-movement key
- A macro command equivalent to ENTER or a pointer-movement key occurs in the macro
- A {CALC}, {RECALC}, or {RECALCCOL} occurs in the macro

{button ,AL('H_RUNNING_A_MACRO_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SETTING_RECALCULATION_DEFAULTS_STEPS',0)} [See related topics](#)

Stopping a running macro

While a macro is running, you can't do anything else in 1-2-3. For this reason, you may sometimes want to stop a macro while it's running.

1. Press CTRL+BREAK while the macro is running.

Unless the macro contains a {BREAKOFF} command, 1-2-3 stops the macro after it completes the current command, and displays a message.

2. Click OK to clear the message.
3. Resume working in 1-2-3.

Note You can't stop a macro that contains a {BREAKOFF} command. The {BREAKOFF} command prevents users from stopping a macro; the {BREAKON} command restores the ability to stop a macro.

{button ,AL('H_123_MACROS_OVER;H_DEBUGGING_A_MACRO_STEPS;',0)} [See related topics](#)

Debugging a macro

Sometimes when you first run a macro, it doesn't do what you expect, or 1-2-3 displays a message. When a macro doesn't run correctly, you have to find and fix the problem.

1. Choose Edit - Scripts & Macros - Run.



2. Select "Macro."
3. Do one of the following:
 - In the "Range" box, enter the range name or address of the macro to run.
 - Select the macro name from the list of range names.
4. Click Step to display the Macro Trace window with the first command displayed.
5. Click Step again to execute the first command in the macro and display the next command.
6. Continue clicking Step to execute each command in the macro, one at a time.

If 1-2-3 encounters an error, it displays a message and stops the macro.
7. (Optional) If a command does not work as expected, click Stop to stop the macro at the cell containing the next macro command.
8. When the macro stops, click OK to dismiss the message, if one appears, and edit the macro.

Note Once macro execution stops, you must start executing the macro from the beginning to further debug the macro. You cannot continue macro execution where you left off, or correct a macro while it is running.

{button ,AL('H_DEBUGGING_A_MACRO_DETAILS',1)} [See details](#)

{button ,AL('H_123_MACROS_OVER;H_COMMON_ERRORS_IN_MACROS_OVER;H_SYNTAX_RULES_FOR_MACROS_OVER;',0)} [See related topics](#)

Details: Debugging a macro

Fixing problems in macros

If 1-2-3 displays a message when you try to run a macro, the problem is usually incorrect syntax, often caused by a typing or spelling error. You can correct these errors by editing the macro commands just as you edit any cell entry. The message tells you the name and location of the incorrect command.

Running a macro to completion

When using the Macro Trace window, you can run a macro to completion by clicking Continue Execution. You can click this button at any time before the macro stops. For example, you might click Step a few times to see how the first few commands work, and then click Continue Execution to run the rest of the macro to the end.

If 1-2-3 encounters an error in the macro after you've clicked Continue Execution, it displays a message and stops the macro.

{button ,AL('H_DEBUGGING_A_MACRO_STEPS',1)} Go to procedure

Common errors in macros

When debugging a macro, check for the following common errors.

Typing errors

- Incorrectly spelled keywords, such as {INSERT-COLUMN} instead of {INSERT-COLUMNS}; or misspelled range names, such as Profits instead of Profit
- A missing hyphen or extra hyphens in a hyphenated macro keyword
- Underscores (_) instead of hyphens (-) in a macro keyword

Extra spaces

Watch for spaces where there shouldn't be any, such as:

- Between the { (open brace) and the keyword in a macro command
- Between arguments
- In an @function within a command
- In a range name
- Before or after a hyphen in a hyphenated word
- As the last character in a cell

Punctuation problems

- Missing braces around a command
- Enclosing a command in () (parentheses) or [] (square brackets) instead of { } (braces)
- Missing quotation marks around text arguments that must be enclosed in quotation marks; for example, {CELL-ENTER Rates;Caption} instead of {CELL-ENTER "Rates";Caption}

Problems with arguments

- Missing required arguments
- Arguments of the wrong type; for example, a text argument where 1-2-3 expects a number
- Missing or misplaced argument separators, such as when you intentionally omit an optional argument between two other arguments
- Using an invalid argument separator; see [Changing the argument separator](#) for information

Problems with references

- References to nonexistent ranges
- References to range names that are no longer associated with a range
- Range names or addresses without sheet letters or workbook file references, when you need these to specify a location argument

Duplicate names

Watch for script names, macro names, or subroutine names that duplicate macro keywords, such as Quit, Return, or Query.

Problems with recalculation

Be careful not to omit a {CALC}, {RECALC}, or {RECALCCOL} command after a macro command that changes data. 1-2-3 recalculates formulas only when it encounters one of these commands if recalculation is set to Manual.

Macro ends too soon

Make sure your macro doesn't include a blank cell or a cell containing a value, which will end the macro before you meant it to.

{button ,AL(`H_123_MACRO_S_OVER;H_DEBUGGING_A_MACRO_STEPS;'0)} [See related topics](#)

Creating a macro that runs automatically

An autoexecute macro is a macro that runs automatically every time you open the workbook containing the macro.

1. Create the macro.
2. Select the first cell of the macro.
3. Choose Range - Name.
4. In the "Name" box, enter \0 (a backslash, followed by a zero), and click OK.

Note You can have only one autoexecute macro in each workbook.

{button ,AL('H_CREATING_AN_AUTOEXECUTE_MACRO_DETAILS',1)} [See details](#)

{button ,AL('H_123_MACROS_OVER;H_NAMING_AND_DOCUMENTING_A_MACRO_DETAILS;',0)} [See related topics](#)

Details: Creating a macro that runs automatically

How the autoexecute setting affects macro results

The result of certain macros depends on the autoexecute setting in File - User Setup - 1-2-3 Preferences (General tab). For example, suppose a macro contains a {FILE-OPEN} command that opens a workbook containing an autoexecute macro. The macro would give different results depending on the autoexecute setting.

- If "Run file Opened scripts, autoexecute macros" is selected, 1-2-3 opens the workbook and runs the autoexecute macro, but doesn't resume running the original macro.
- If "Run file Opened scripts, autoexecute macros" is not selected, 1-2-3 opens the workbook and continues running the original macro, but doesn't run the autoexecute macro.

Opening multiple files with autoexecute macros

If you open multiple files at once, 1-2-3 checks to see which files contain autoexecute macros. Of those files, 1-2-3 runs only the macro in the last workbook opened.

Using explicit file names

Macros that do not contain explicit file names always operate on the current workbook. If you open more than one workbook at a time, the last workbook opened becomes the current workbook, even if that workbook doesn't have an autoexecute macro. When opening multiple files at once, it is possible to execute an autoexecute macro in one workbook on data in a different workbook, if that workbook was opened after the workbook containing the macro.

Therefore, if you open multiple files at once, be sure to use explicit file names in your autoexecute macros to ensure that the macro will execute against the correct workbook. For example, you should use complete file-name references in all range specifications, as in <<myfile>>A:A1..B6.

{button ,AL('H_CREATING_AN_AUTOEXECUTE_MACRO_STEPS',1)} [Go to procedure](#)

Calling a script from a macro

You can call script subroutines from macros.

1. Select the cell where you want to enter the call to the script.
2. Type {
3. If the script is stored in another workbook, enter the name of the workbook file, enclosed in angle brackets (for example, <<myfile>>).
4. Enter the name of the script.
5. Type } and press ENTER.
6. Enter any other commands in your macro.

{button ,AL('H_CALLING_A_SCRIPT_FROM_A_MACRO_DETAILS',1)} [See details](#)

{button ,AL('H_CALLING_A_SCRIPT_FROM_A_MACRO_EX',1)} [See example](#)

{button ,AL('H_123_MACROS_OVER;H_COMMON_ERRORS_IN_MACROS_OVER;H_NAMING_AND_DOCUMENTING_A_MACRO_STEPS;H_SAVING_A_MACRO_STEPS;H_SYNTAX_RULES_FOR_MACROS_OVER;H_PARTS_OF_A_MACRO_OVER;',0)} [See related topics](#)

Details: Calling a script from a macro

Duplicate names

When you call a script from a macro, be careful that your script name does not duplicate the name of a macro keyword or a named range.

When you specify a script name in a macro, 1-2-3 first checks whether the name is a macro keyword or a range. If 1-2-3 finds a macro keyword by the specified name, it evaluates the command as a macro. If 1-2-3 finds a range by that name, it looks for macro commands at that range. Only if it cannot find a macro keyword or a range name by the specified name does 1-2-3 look for a script to execute.

Running a script in another workbook

If your macro calls a script in another workbook, the workbook containing the script must be active when you run the macro.

Passing arguments to a script

To pass arguments to a script when you call it from a macro, enter the arguments in standard macro format:

`{SCRIPTNAME argument1;argument2;...}`

Note When 1-2-3 is a DDE client, you cannot run a macro that calls a script subroutine.

`{button ,AL('H_CALLING_A_SCRIPT_FROM_A_MACRO_STEPS',1)}` [Go to procedure](#)

Example: Calling a script from a macro

The following macro calls a script named GetData, which puts data in cells A1..B15. The macro then names the range and styles the data retrieved by GetData.

```
{GetData}  
{RANGE-NAME-CREATE "DATA";A1..B15}  
{STYLE-FONT-ATTRIBUTES "BOLD";"ON";"DATA"}
```

Changing the argument separator

The standard separator to use between macro and @function arguments is ; (semicolon). However, you can specify a different character.

1. From the Windows 95 Start menu, choose Settings.
2. From the Settings menu, choose Control Panel.
3. Double-click Regional Settings.
4. Click the Number tab.
5. In the "List separator" box, enter or select the separator you want to use.

You can use any character as the argument separator. Common separators to use are , (comma) and . (period).

Note ; (semi-colon) will work as an argument separator even if another character is selected in the "List separator" box. The argument separator cannot be the same as the decimal symbol.

{button ,AL('H_123_MACROS_OVER;H_FUNC_BASICS;H_PARTS_OF_A_MACRO_OVER;H_FUNCTION_FORMA
T_OVER;',0)} [See related topics](#)

Installing Help on macro commands

Help on macro commands is not installed by the Install program. If you have the 1-2-3 Release 9 or SmartSuite Release 9 CD-ROM, you can install macro Help from there. If not, you can download macro Help from the World Wide Web.

Once macro Help is copied to the correct location on your computer, you can access it by using Help - Help Topics or by clicking the Help button in the Macro Keywords dialog box.

Installing macro Help from the CD-ROM

1. Insert the CD-ROM in the appropriate drive.
2. Start the Windows Explorer.
3. Open the EXTRA\123\MACROHLP folder on the CD drive.
4. Select the files ssmn70en.hlp and ssmn70en.cnt, and choose Edit - Copy.
5. Open the folder where you installed 1-2-3 (typically \lotus\123), and choose Edit - Paste.

Macro Help will be available the next time you open Help for 1-2-3 Release 9.

Tip If 1-2-3 Help was open when you installed macro help, close and reopen 1-2-3 Help before opening macro help topics.

Installing macro Help from the World Wide Web

Use this procedure to download a file that installs the macro help files on your computer.

1. Choose Help - Lotus Internet Support - Lotus Customer Support (or use your browser to go to www.support.lotus.com).



2. Scroll to the Product Support Pages list, select "1-2-3 for Windows," then click GO.
3. In the Hot Topics list, click the link for 1-2-3 Release 9 Macro Help File.
4. Click MACROS_9.EXE.
5. Select your 1-2-3 product directory (typically \lotus\123\) as the location for the file MACROS_9.EXE.
6. Click Save.
7. Click the Windows 95 Start button, and then choose Run.
8. Type c:\lotus\123\macros_9.exe in the command line.
9. Click OK.

MACROS_9.EXE installs the following files:

- ssmn70en.hlp
- ssmn70en.cnt

These files will be available the next time you open Help for 1-2-3 Release 9.

Tip If 1-2-3 Help was open when you installed macro help, close and reopen 1-2-3 Help before opening macro help topics.

Note 1-2-3 will not automatically remove the macro Help files if you choose to uninstall 1-2-3. Instead, you will need to manually delete these files.

Using macro Help in translated versions of 1-2-3

Help on macro commands is designed for use with the worldwide English version of 1-2-3. If you have installed a translated version of 1-2-3 and want to use the macro Help files (ssmn70en.hlp, ssmn70en.cnt), please note the following:

- In Help Contents, the two macro command books, "Alphabetical List of Macros" and "Macros by Category" (and all information within these books) appear in English.
- Some links and glossary pop-ups in macro Help will display errors because they refer to Help topics in the worldwide English version of 1-2-3.

{button ,AL('H_PHONE_NUMBERS_AND_HOURS_US_OVER;H_PHONE_NUMBERS_AND_HOURS_CANADA_OVER;H_LOTUS_CUSTOMER_SUPPORT_INT_OVER;H_123_MACROS_OVER;',0)} See related topics

Help on macro commands

Use the Macro Keywords dialog box to enter the name of a macro command in a cell, along with argument placeholders. To display the dialog box, enter { (open brace) in a cell and press F3 (NAME).

Choose a topic

Writing a macro

Macro commands A-Z (available only if you have installed Help on macro commands)

Installing Help on macro commands

{button ,AL('H_123_MACROS_OVER;H_MACRO_COMPATIBILITY_OVER;H_123_RELEASE_5_MACRO_COMMAND_EQUIVALENTS_OVER;H_OBSOLETE_MACINTOSH_MACROS_OVER',0)} See related topics

Macro compatibility

A number of macro commands that were supported in previous releases of 1-2-3 are no longer supported in 1-2-3. In addition, the behavior of some macros has changed.

Chart macro commands

These macro commands are no longer supported:

- {CHART-COLOR-RANGE}
- {CHART-PATTERN-RANGE}
- {CHART-SET-PREFERRED}
- {CHART-USE-PREFERRED}

In addition, the {CHART-TYPE} macro command for xy scatter charts works differently in this release. 1-2-3 no longer supports stacked xy scatter charts. Therefore, {CHART-TYPE "xy";1}, {CHART-TYPE "xy";3}, and {CHART-TYPE "xy";5} all generate non-stacked xy scatter charts.

Database macro commands

These macro commands are no longer supported:

- {COMMIT}
- {CROSSTAB}
- {QUERY-UPGRADE}
- {ROLLBACK}

1-2-3 commits changes automatically. You cannot roll back changes once they are completed.

DDE and OLE macro commands

These macro commands are no longer supported:

- {LINK-TABLE}
- {DDE-TABLE}

These DDE macro commands were not supported in 1-2-3 97, but are supported in this release of 1-2-3.

- {DDE-ADVISE}
- {DDE-CLOSE}
- {DDE-EXECUTE}
- {DDE-OPEN}
- {DDE-POKE}
- {DDE-REQUEST}
- {DDE-UNADVISE}
- {DDE-USE}

Edit macro commands

The "query" argument in {EDIT-PASTE-SPECIAL} is not supported. If you use the argument, the macro stops and 1-2-3 displays an error message.

File macro commands

The {FILE-SEAL-NETWORK-RESERVATION} macro is no longer supported.

When attempting to find a named print style to use, {PRINT-NAME-USE} looks first in the current workbook. If there is no print style by that name in the current workbook, 1-2-3 looks for an .AL3 file. If it finds the .AL3 file, 1-2-3 creates a new named print style in the current workbook using the file name.

{PRINT-NAME-ADD} never creates an .AL3 file, but instead adds a named print style to the current workbook. If there is already a print style with that name, the macro stops and displays an error message.

Flow-of-control macro commands

These macro commands are no longer supported:

- {LOTUS-LAUNCH}

- {SYSTEM}

Solver macro commands

The {SOLVER-ANSWER-SAVE} macro is no longer supported.

To use other {SOLVER} macros, you must install the Solver add-in. You can install a trial version of Solver, available from both the 1-2-3 Customer Support Web site and the Frontline Systems Web site. See [Connecting to Lotus Customer Support](#).

For more information about Solver, contact:

Frontline Systems, Inc.
PO Box 4288
Incline Village, NV 89450
Tel: (702) 831-0300
Fax: (702) 831-0314
Web: <http://www.frontsys.com>
E-mail: info@frontsys.com

The {BACKSOLVE} macro command works even if the Solver add-in is not installed.

Tools macro commands

These macro commands are no longer supported:

- {ADDIN-INVOKE}
- {REGISTER}
- {UNREGISTER}

In addition, the {AUDIT} macro command is no longer supported; instead, its functionality is provided through the Scripts.123 files, available in the Extra\123\Scripts directory on the 1-2-3 and SmartSuite CD-ROMs.

User environment macro commands

These macro commands are no longer supported:

- {FORM}
- {FORMBREAK}

Version Manager macro commands

These macro commands are no longer supported:

- {RANGE-VERSION?}
- {VERSION-INDEX-COPY}
- {VERSION-UPDATE}

{button ,AL('H_123_CONVERTING_MACRO_BUTTONS_OVER;H_PHONE_NUMBERS_AND_HOURS_US_OVER;
H_PHONE_NUMBERS_AND_HOURS_CANADA_OVER;H_LOTUS_CUSTOMER_SUPPORT_INT_OVER;H_OB
SOLETE_MACINTOSH_MACROS_OVER',0)} [See related topics](#)

Obsolete 1-2-3 for Macintosh commands

The following table lists macro commands that worked with 1-2-3 for Macintosh and were supported in previous releases of 1-2-3 for Windows but are no longer supported. The second column lists the closest current 1-2-3 command.

1-2-3 for Macintosh command	Similar current 1-2-3 command
{DATA-DISTRIBUTION}	{DISTRIBUTION}
{DATA-EXTERNAL-CONNECT}	{DATABASE-CONNECT}
{DATA-EXTERNAL-CREATE-TABLE}	{DATABASE-CREATE-TABLE}
{DATA-EXTERNAL-DISCONNECT}	{DATABASE-DISCONNECT}
{DATA-EXTERNAL-SEND-COMMAND}	{DATABASE-SEND-COMMAND}
{DATA-FILL}	{FILL}
{DATA-MATRIX-INVERT}	{MATRIX-INVERT}
{DATA-MATRIX-MULTIPLY}	{MATRIX-MULTIPLY}
{DATA-PARSE}	{PARSE}
{DATA-REGRESSION}	{REGRESSION}
{DATA-REGRESSION-RESET}	No similar macro available
{EDIT-CLEAR-CONTENTS}	{EDIT-CLEAR}
{EDIT-CLEAR-STYLES}	{EDIT-CLEAR}
{EDIT-MOVE-CELLS}	{EDIT-QUICK-MOVE}
{FILE-PRINT}	{PRINT}
{FILE-PRINT-NAME-ADD}	{PRINT-NAME-ADD}
{FILE-PRINT-NAME-USE}	{PRINT-NAME-USE}
{FILE-PRINT-RESET}	{PRINT-RESET}
{FILE-PRINT-SELECTION}	{PRINT}
{FILE-PRINT-SELECTION?}	{PRINT?}
{FILE-PRINT?}	{PRINT?}
{FILE-QUIT}	{FILE-EXIT}
{GRAPH-NEW}	No similar macro available
{GRAPH-VIEW}	No similar macro available
{RANGE-FORMAT}	{STYLE-NUMBER-FORMAT}
{RANGE-FORMAT-RESET}	{STYLE-NUMBER-FORMAT-RESET}
{RANGE-GOTO}	{EDIT-GOTO}
{RANGE-PROTECT}	{PROTECT}
{RANGE-UNPROTECT}	{UNPROTECT}
{ROW-HEIGHT-RESET}	{ROW-HEIGHT-FIT-LARGEST}
{SELECT-ALL-SHEETS}	{SELECT-ALL}
{SELECT-RANGE}	{SELECT}
{SELECT-RANGE-APPEND}	{SELECT-APPEND}
{STYLE-ALIGN}	{STYLE-ALIGN-HORIZONTAL}
{STYLE-BACKGROUND-COLOR}	{STYLE-INTERIOR}
{STYLE-BACKGROUND-PATTERN}	{STYLE-INTERIOR}
{STYLE-FONT-EMPHASIS}	{STYLE-FONT-ATTRIBUTES}
{STYLE-FOREGROUND-COLOR}	{STYLE-INTERIOR}
{STYLE-TEXT-COLOR}	{STYLE-INTERIOR}
{USER-SETUP-UPDATE}	No similar macro available
{WINDOW-CLOSE}	{FILE-CLOSE}

{button ,AL('H_MACRO_COMPATIBILITY_OVER','0')} [See related topics](#)

Run Scripts & Macros dialog box

Use this dialog box to run existing scripts and macros.

Choose a task

[Running a macro](#)

[Running a script](#)

[Debugging a macro](#)

{button ,AL('H_123_MACROS_OVER;',0)} [See related topics](#)

Getting Help on a menu command

Help provides descriptions of the commands on each menu.

1. Click the command on the main menu (for example, File, Edit, View).
2. Press F1 (HELP) to see a Help topic describing each command on that menu.

Tip When you highlight a command, a description appears in the title bar of the 1-2-3 window.

{button ,AL('H_GETTING_HELP_ON_A_MENU_COMMAND_DETAILS',1)} [See details](#)

{button ,AL('H_USING_MENUS_OVER;H_123_COMMANDS_REF;',0)} [See related topics](#)

Details: Getting Help on a menu command

1-2-3 has context-sensitive Help for all menu commands, InfoBox tabs, and dialog boxes.

Other ways to get Help

To display Help on a dialog box, click the Help button. To display Help on an InfoBox tab, click the ?... (question mark) button in the top-right corner of the InfoBox.



{button ,AL('H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS',1)} [Go to procedure](#)

Overview: Using menus

1-2-3 commands appear on the main menu. To cancel out of a menu, press ESC one or more times.

The main menu

The 1-2-3 commands below always appear on the main menu when a workbook is active.

- File
- Edit
- View
- Create
- Sheet
- Window
- Help

One command on the menu changes, depending on your current selection. For example, if you select a range, the command changes to Range, but if you select a drawing, then the command changes to Drawing.



Depending on what you have selected, you will see one of the following commands:

- Chart
- Drawing
- Map
- Preview
- Range
- Query Table
- Web Table
- <OLE object>
- <Name of control>

Note If you select an OLE object, the name of that object, such as Presentation or Document, appears in the menu.

Shortcut menus

Shortcut menus display useful commands for working with the current selection. To display a shortcut menu, select a range or graphic object, then right-click the selection. For example, if you select a row and then right-click the selection, you will see menu commands appropriate for working with rows, as shown below.



You can't display a shortcut menu while you are editing in a cell or text block, or while a dialog box is open.

The 1-2-3 Classic menu

1-2-3 Classic is the / (slash) command menu of 1-2-3 for DOS Release 3.1, available in the current release of 1-2-3. For more information, see [Overview: 1-2-3 Classic](#).



```
{button ,AL('H_CANCELLING_A_COMMAND_STEPS;H_GETTING_HELP_ON_A_MENU_COMMAND_STEPS;H_
UNDOING_A_COMMAND_STEPS;',0)} See related topics
```

Overview: Versions

As an individual or as part of a team, you can create and work with versions to perform what-if analyses and track spreadsheet changes. You can use versions to test business assumptions, devise strategies based on different business scenarios, or coordinate the contributions of a team or workgroup.

What are versions?

Versions are sets of different data for the same named range. Each version has a name, a date and time of creation and modification, and the name of the person who created or last modified the version. You can also assign styles and protection settings to a version and attach a comment.

For example, you can name a range Revenues and create three versions of the range: HighRev, with values of 600, 500, 400, and 300; MedRev, with values of 500, 400, 300, and 200; and LowRev, with values of 400, 300, 200, and 100.

You can create versions of any named range. For example, as well as creating versions of Revenues, you might name another range Expenses and create versions named HighExp, MedExp, and LowExp.

When you create versions for a named range, all the versions are stored in the cells of the range. 1-2-3 calculates using the values in the currently displayed version. Any style or data changes you make to cells update the version within that range automatically.

Tracking changes to data

Using versions lets you track changes to data. With versions, you can always tell the *who*, *when*, *what*, and *why* of data.

Tracking is especially useful in a workgroup where different team members contribute to the same spreadsheet. You can always tell who created a version and when it was created or modified. From the comments, you can tell what type of data a version contains and why it was created or modified.

Using versions for what-if analysis

Formulas that refer to cells in a versioned range vary according to the version of the range currently displayed.

Displaying different versions of a range and comparing the effect on other values in your spreadsheet is a good way to do simple what-if analysis.

For example, you can create High and Low versions for a range named Sales and compare the effect of those versions on other values.

```
{button ,AL(`;H_SHARING_VERSIONS_WITH_A_TEAM_OVER;H_WORKING_WITH_VERSION_GROUPS_OVER;  
H_DELETING_VERSIONS_STEPS;H_DISPLAYING_VERSIONS_STEPS;H_CREATING_A_VERSION_STEPS';  
0)} See related topics
```

Overview: Sharing versions with a team

You can increase team productivity by sharing versions and version groups. For example, team members can collaborate on a sales projection by each entering their versions of projected sales and expenses. As the originator of a shared workbook or range, you can distribute a workbook or range to a team, then consolidate the contributions of team members into your original workbook or range.

You can share entire workbooks (or ranges within a workbook) on a network or without a network.

Sharing an entire workbook

To share an entire workbook containing versioned ranges, use File - TeamMail. When you receive changes from team members on your distribution list, you can use File - TeamConsolidate - Merge Versions to merge their changes into the master copy.



[See related topics](#)

Sharing a versioned range

To share just a versioned range in a workbook, use File - TeamReview. When the range has been distributed to team members, it is returned to you automatically, and you can then consolidate it back into a master workbook. The consolidation process creates versions automatically based on the changes received from team members.



[See related topics](#)

Sharing a workbook on a network

You can also share a workbook using a network and workbook reservations. Every team member can read the workbook containing the versions, but only the person who currently has the reservation can make changes.



[See related topics](#)

Creating a version

You can name a range and create versions at the same time, or you can create versions of previously named ranges.



[Show me a QuickDemo](#)

1. Select the range.
2. Choose Range - Version - New Version.



3. If the range is not already named, enter a name in the "Name of range containing versions" box or accept the default name.
4. Accept the default version name or enter a different name in the "Name of new version" box.
5. (Optional) To copy data in the original named range into the new version, select "Use current data for new version."
If you leave this option deselected, the new version is blank.
6. (Optional) Click Next to enter a comment or set [options](#).
7. Click Done.

{button ,AL('H_CREATING_A_VERSION_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_NAMING_A_RANGE_STEPS;H_CHANGING_VERSION_PROPERTIES_STEPS;H_DELETING_VERSIONS_STEPS;H_DISPLAYING_VERSIONS_STEPS;',0)} [See related topics](#)

Details: Creating a version

Displaying the version name and border

To change the version name, click it, type a new name, and press ENTER

To select the version you want to use, click here

A						
A	A	B	C	D	E	F
1						
2						
3						
4						
5	China	9	14	9		
6	France	12	14	8		
7	Japan	13	20	10		
8	U.S.	11	10	14		
9	Total	45	58	41	49	

Displaying the version name and border makes it easy to:

- Identify ranges that contain versions.
- Display a different version quickly by clicking the arrow next to the version name and selecting a version from the list.
- Get quick access to commands for working with versions. Right-click the version name to display the shortcut menu.

Renaming versions used in @functions

If you change the name of a version used in an @function, you can use Edit - Find & Replace to replace the old name with the new name in the @function.

Turning on version names and borders for the whole workbook

To turn version names and borders on or off for the whole workbook, use File - Workbook Properties (View tab).

Limitations

You can create versions of named ranges only if they contain 2000 or fewer cells.

{button ,AL('H_CREATING_A_VERSION_STEPS',1)} [Go to procedure](#)

{button ,AL('H_SETTING_VIEW_PREFERENCES_FOR_WORKBOOKS_DETAILS;',0)} [See related topics](#)

Options: New Version dialog box (Step 2: Options tab) and Range InfoBox (Versions tab)

Name of current version

You can change the name here. This option appears only on the Range InfoBox (Versions tab).

Comment

The comment you enter in the New Version dialog box appears in the InfoBox when the version is displayed in the sheet.

Show name and border around version

Displays the version name and a border around the named range. You can change whether the version name and border are displayed by default with File - Workbook Properties (View tab).

Keep styles with version

Retains the styles of the range; you can create a different style, for example, a background color, for each version.

Protection

The protection setting you choose takes effect only after you lock the sheet or workbook.

- Unprotected. You can display, change, or delete the version unless any part of the versioned range is protected with cell protection. Cell protection does not take effect until the workbook is locked.
- Protected. Once the sheet or workbook is locked, you cannot change the version's data or properties, or delete it. You can display it in the sheet unless any part of the versioned range is protected with cell protection.
- Hidden. Once the workbook is locked, the version name does not appear in lists of versioned ranges, and you cannot display, change, or delete it. The InfoBox also does not display version information for a hidden version.

{button ,AL('H_PROTECTING_DATA_OVER;H_WORKING_WITH_VERSIONS_OVER;H_CREATING_A_VERSION_DETAILS','0)} [See related topics](#)

Displaying a version

You can display different versions in a sheet. When you display a version, 1-2-3 recalculates all formulas and charts associated with the displayed version.



Show me a QuickDemo

1. Choose Range - Version - Display Version.



2. From the "Display version for range" list, select the range containing the version you want to display.
3. From the list of versions, select the version you want to display.
4. If the version is in a part of the sheet outside the displayed area and you want to see the version when you display it, select "Go to version when displayed."
5. Click Display.
6. (Optional) To display another version of the same range, repeat step 3; to display a version of a different named range, repeat steps 2 and 3.
7. Click Done.

Tip If the version name and borders are displayed in the sheet, you can click the arrow next to the name and select the version to display.

{button ,AL('H_DISPLAYING_VERSIONS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_CREATING_A_VERSION_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_DELETING_VERSIONS_STEPS;H_CHANGING_VERSION_PROPERTIES_STEPS','0)} [See related topics](#)

Details: Displaying a version

In a locked workbook, hidden versions don't appear in the list of versions. If all the versions in a range are hidden, the range name does not appear in the "Display version for range" list.

{button ,AL('H_DISPLAYING_VERSIONS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_BOX_NEW_VERSION_TAB_OPTIONS_REF;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Changing version properties

You can use the InfoBox to change the version name, comment, and options for displaying, styling, and protecting versions.

1. Select the named range containing the version you want to change.
2. Choose Range - Range Properties.



3. Click the Version tab in the InfoBox.



4. Change one or more properties.
5. (Optional) Move, collapse, or close the InfoBox.

Tip If the version name and borders are displayed in the sheet, you can rename the currently displayed version by clicking the name, typing a new name, and pressing ENTER.

For a description of the options on this InfoBox tab, see [Options](#).

{button ,AL('H_CHANGING_VERSION_PROPERTIES_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_CREATING_A_VERSION_STEPS;H_DISPLAYING_VERSIONS_STEPS;H_FINDING_RANGES_AND_OTHER_OBJECTS_STEPS;H_DELETING_VERSIONS_STEPS;H_USING_THE_NAVIGATOR_TO_FIND_NAMED_RANGES_STEPS;',0)} [See related topics](#)

Details: Changing version properties

Displaying the version name and border

Displaying the version name and border makes it easy to:

- Identify ranges that contain versions.
- Display a different version quickly by clicking the arrow next to the version name and selecting a version from the list.
- Get quick access to commands for working with versions. Right-click the version name to display the shortcut menu.
- Edit the version name.

To change the version name, click it, type a new name, and press ENTER

To select the version you want to use, click here

	A	B	C	D	E	F
1						
2		Units Sold				
3						
4		Actual				
5	China	9	14	9		
6	France	12	14	8		
7	Japan	13	20	10		
8	U.S.	11	10	14		
9	Total	45	58	41	49	

Actual
Forecast
Original

Renaming versions used in @functions

If you change the name of a version used in an @function, you can use Edit - Find & Replace to replace the old name with the new name in the @function.

Turning on version names and borders for the whole workbook

To turn version names and borders on or off for the whole workbook, use File - Workbook Properties (View tab).

{button ,AL('H_CHANGING_VERSION_PROPERTIES_STEPS',1)} [Go to procedure](#)

Deleting a version

1. Choose Range - Version - Delete Version.



2. From the "Delete version for range" list, select the range containing the version you want to delete.
3. From the list of versions, select the version to delete.
4. Click Delete.
5. (Optional) To delete another version, repeat steps 2 through 4.
6. Click Done.

{button ,AL('H_DELETING_VERSIONS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;H_CREATING_A_VERSION_STEPS;H_DISPLAYING_VERSIONS_STEPS;H_CHANGING_VERSION_PROPERTIES_STEPS','0')} [See related topics](#)

Details: Deleting a version

What happens when you delete a version?

After you delete a version, 1-2-3 displays one of the remaining versions in the sheet. If there are no other versions for the range, or if all other versions are hidden, the range contains the data for the last version you deleted, but no longer stores the data as a version.

Hidden and protected versions

You cannot delete protected or hidden versions in a locked sheet or workbook, or delete an unprotected version if it is displayed in a locked workbook and one or more cells are protected. The names of hidden versions in a locked workbook do not appear in the list of versions.

{button ,AL('H_DELETING_VERSIONS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Creating a version report

You can create a report showing selected versions and their effect on formulas. 1-2-3 creates the report in a new workbook.

1. Choose Range - Version - Report.
2. From the "Report on this range" list, select the name of the range containing the versions you want to include in the report.
3. From the "Include these versions" list, click one or more versions.
4. (Optional) To see the effect of the selected versions on formulas in the sheet, enter the address or name of the range containing the formulas in the "Results of dependent formulas in this range" box.
5. (Optional) To include the data for the selected versions, select "Version data."
6. (Optional) To include the names of people who created or last modified the version, along with the date and time the version was created and modified, select "Creator, editors, and dates."
7. Under Arrange report, select "By columns" or "By rows."
8. Click OK.

{button ,AL('H_CREATING_A_VERSION_REPORT_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_VERSION_REPORT_EX;',1)} [See example](#)

{button ,AL('H_WORKING_WITH_VERSIONS_OVER;',0)} [See related topics](#)

Details: Creating a version report

1-2-3 creates the version report in a new workbook, with the name REPORT followed by a number: for example, REPORT1.123. To view the workbook, choose Window and select the report name. You can print and save this as you would any other workbook.

Specifying the range of formulas

If you specify a range in the "Results of dependent formulas in this range" box, 1-2-3 recalculates formulas in active files. Formulas will show the results of the respective versions in the report file.

You can't specify a collection for the range of formulas.

{button ,AL('H_CREATING_A_VERSION_REPORT_STEPS',1)} [Go to procedure](#)

Example: Creating a version report

The illustration below is an example of a version report. This report shows the name of the file containing the versions, the name and address of the versioned range, the reported versions, the version data, and the effect of the versions on the specified formula.

A				
A	A	B	C	D
1	File	C:\LOTUS\WORK\123\Sales.123		
2	Named range	INVENTORY	(A:B14..A:C17)	
3				
4	Version name	Actual	Forecast	
5	Creator	Miriam Henkel	Carol Saron	
6	Date created	08/27/96	08/27/96	
7	Modifier	Min Chin	Rene Gonzales	
8	Date modified	08/27/96	08/27/96	
9				
10	Version cells			
11				
12	A:B14	16	15	
13	A:B15	29	16	
14	A:B16	21	19	
15	A:B17	19	17	
16	A:C14	16	16	
17	A:C15	27	26	
18	A:C16	23	22	
19	A:C17	26	24	
20				
21	Formula results			
22				
23	A:B18	85	67	
24	A:C18	92	88	
25				

{button ,AL('H_CREATING_A_VERSION_REPORT_STEPS','0)} [See related topics](#)

Overview: Version groups

You can group versions of different named ranges and name the version group. For example, you can group the HighRev version of Revenues with the LowExp version of Expenses to create a version group named BestCase, or create a version group named WorstCase that combines the LowRev version of Revenues with the HighExp version of Expenses.

Using version groups for what-if analysis

Formulas that refer to cells in a versioned range vary according to the version of the range currently displayed. Displaying different versions of a range and comparing the effect on other values in your spreadsheet is a good way to do simple what-if analysis.

With version groups, you can perform more complex what-if analyses. When you display a version group, all the versions in that group appear in the sheet, affecting any formulas that refer to the versions. You can combine versions into many different groups, display these groups, and compare the various effects.

{button ,AL(`H_WORKING_WITH_VERSIONS_OVER;H_SHARING_VERSIONS_WITH_A_TEAM_OVER;H_CREATING_A_VERSION_GROUP_STEPS;H_DISPLAYING_VERSION_GROUPS_STEPS;H_MODIFYING_A_VERSION_GROUP_STEPS;H_DELETING_VERSION_GROUPS_STEPS";0)} [See related topics](#)

Creating a version group

You can group versions and name the new version group.



[Show me a QuickDemo](#)

1. Choose Range - Version - Version Groups.



2. Click New Group.
3. Enter a name in the "Name of version group" box or accept the default name.
4. To add a version to the new group, drag it from the "Available versions" list to the "Versions in group" list.
For each named range, you can select only one version to put in the new version group.
5. To remove a version from the group, drag it outside the "Versions in group" list.
6. From the "Protection for group" list, select an option: "Protected," "Unprotected," or "Hidden."
7. (Optional) In the "Comments" box, enter a comment about the version group.
8. Click OK to return to the Version Groups dialog box.
9. Click Done.

{button ,AL('H_CREATING_A_VERSION_GROUP_DETAILS',1)} [See details](#)

{button ,AL(';H_WORKING_WITH_VERSION_GROUPS_OVER;H_MODIFYING_A_VERSION_GROUP_STEPS;H_DELETING_VERSION_GROUPS_STEPS;H_DISPLAYING_VERSION_GROUPS_STEPS;',0)} [See related topics](#)

Details: Creating a version group

Overlapping versioned ranges

Do not include overlapping versions in the same version group. This may result in unpredictable data or data loss in the overlapping cells of the version group.

Expanding and collapsing the "Available versions" and "Versions in group" lists

You can expand and collapse the "Available versions" and the "Versions in group" lists by double-clicking range names.

When a workbook is locked

When a workbook is locked, hidden version groups will not appear under "Version group." You cannot change the properties of protected versions or version groups. However, you can add a protected version to an unlocked version group.

You cannot create a hidden version in a locked workbook.

You can add protected versions to a new version group.

{button ,AL('H_CREATING_A_VERSION_GROUP_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Displaying a version group

When you display a version group, all the versions in the group appear in the sheet.

1. Choose Range - Version - Version Groups.



2. From the "Version group" list, select the group you want to display.
3. Click Display Group.
4. (Optional) To display another version group, repeat steps 2 and 3.
5. Click Done.

Tip If the version name and borders are displayed in the sheets, you can click the arrow next to the name of a version in the group, and then select the version group to display.

{button ,AL('H_DISPLAYING_VERSION_GROUPS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKING_WITH_VERSION_GROUPS_OVER;H_CREATING_A_VERSION_GROUP_STEPS;H_MODIFYING_A_VERSION_GROUP_STEPS;H_DELETING_VERSION_GROUPS_STEPS','0)} [See related topics](#)

Details: Displaying a version group

Hidden and protected versions

If a version group contains any hidden versions and the sheet or workbook containing that group is locked, 1-2-3 does not display the hidden versions.

1-2-3 also does not display a versioned range if it is protected with cell protection or if any cells within that range are protected.

{button ,AL('H_DISPLAYING_VERSION_GROUPS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_BOX_NEW_VERSION_TAB_OPTIONS_REF;H_PROTECTING_DATA_OVER',0)} [See related topics](#)

Changing a version group

You can add or remove versions in a version group.

1. Choose Range - Version - Version Groups.



2. From the "Version group" list, select the group you want to edit.
3. Click Edit Group.
4. To rename the group, enter a new name in the "Name of version group" box.
5. To add a version to the group, drag it from the "Available versions" list to the "Versions in group" list.
6. To remove a version from the group, drag it outside the "Versions in group" list.
7. From the "Protection for group" list, select an option: "Unprotected," "Protected," or "Hidden."
8. In the "Comments" box, enter a comment.
9. Click OK to return to the Version Groups dialog box.
10. Click Done.

{button ,AL('H_MODIFYING_A_VERSION_GROUP_DETAILS',1)} [See details](#)

{button ,AL(';H_WORKING_WITH_VERSION_GROUPS_OVER;H_CREATING_A_VERSION_GROUP_STEPS;H_DISPLAYING_VERSION_GROUPS_STEPS;H_DELETING_VERSION_GROUPS_STEPS;','0')} [See related topics](#)

Details: Changing a version group

Overlapping versioned ranges

Do not include overlapping versions in the same version group. This may result in unpredictable data or data loss in the overlapping cells of the version group.

Protection settings

You can change the protection setting for a version group only if the sheet or workbook is unlocked.

You can protect an unprotected version group in a locked workbook.

You cannot edit the properties of a protected version group in a locked workbook.

Hidden version groups in a locked workbook do not appear in the "Version group" list, so you cannot edit their properties.

{button ,AL('H_MODIFYING_A_VERSION_GROUP_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_BOX_NEW_VERSION_TAB_OPTIONS_REF;H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Deleting a version group

Deleting a version group does not delete the versions (or the data in the versions) that made up the group.

1. Choose Range - Version - Version Groups.



2. From the "Version group" list, select the group you want to delete.
3. Click Delete Group.
4. (Optional) To delete another version group, repeat steps 2 and 3.
5. Click Done.

{button ,AL('H_DELETING_VERSION_GROUPS_DETAILS',1)} [See details](#)

{button ,AL(';H_WORKING_WITH_VERSION_GROUPS_OVER;H_CREATING_A_VERSION_GROUP_STEPS;H_DISPLAYING_VERSIONS_STEPS;H_MODIFYING_A_VERSION_GROUP_STEPS;','0')} [See related topics](#)

Details: Deleting a version group

Protected or hidden versions

You cannot delete version groups that are protected or hidden if the workbook containing those version groups is locked.

{button ,AL('H_DELETING_VERSION_GROUPS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_OPTIONS_BOX_NEW_VERSION_TAB_OPTIONS_REF;H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Version Groups dialog box

Choose a task

[Creating a version group](#)

[Displaying a version group](#)

[Changing a version group](#)

[Deleting a version group](#)

{button ,AL(';H_WORKING_WITH_VERSION_GROUPS_OVER',0)} [See related topics](#)

Working with Web tables

When you create a Web table, 1-2-3 copies tabular data from the HTML file on the Web into a range on the sheet and maintains a link to the source location.



For example, you can extract stock quotes from a Web page and pull them into an investment portfolio, bring up-to-date interest rates into a what-if table, or use budgeting information from your organization's intranet in a forecasting worksheet.

You can click the hyperlink in the Web table to launch your browser and go to the source Web page.

You can specify how often you want to refresh the data in the Web table. You can also use the data in your Web table to perform calculations or build formulas just like any other data in your sheet. For example, you can use the Web data in @functions, query tables, and what-if tables.

As you can see from the picture above, Web tables include a hyperlink that displays the URL for the source as well as the data from an HTML table on the Web. Web tables can also include hyperlinks to other Web pages if they appear in the HTML table on the Web page.

Note The Web table title bar may appear on the bottom of the Web table if there is not enough room to display it on top.

In some ways, Web tables are like other objects in 1-2-3. When you select a Web table, you can move it, size it, change its properties, delete it, and save it with the workbook file.

Selecting and moving a Web table

You can select a Web table by clicking the Web table frame or title bar. The frame is selected and the Web Table menu appears on the menu bar. Handles appear on all sides and corners of the selected Web table.



You can move a selected Web table by dragging it to a new location.

Resizing and refreshing a Web table

You can resize a Web table by dragging a handle of the Web table to a new location. When you change the size of the Web table range, 1-2-3 updates the data in the Web table with the source data on the Web, and updates the Web table range and range size. You can specify whether you want to refresh manually or automatically.

You can also select a variable or fixed range size for your Web table. A variable range size shows all the data from the HTML table on the Web. A fixed range size limits the size of the Web table to the range you specify in 1-2-3.

{button ,AL('H_123_SELECTING_A_WEB_TABLE_STEPS;H_123_GET_DATA_FROM_WEB_STEPS;H_123_REFRESH_WEB_DATA_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} See related topics

Getting data from the Web

When you get data from the Web, you can create a Web table in the current sheet or another sheet in the workbook, but not in a different workbook.

1. From the File menu, choose Internet, and then choose Get Data from Web.
2. Specify the Web address in the "Web address (URL)" box.
3. Enter the range or use the [range selector](#) to select the location for the Web table.
 - If you select one cell, 1-2-3 uses that cell as a starting point to enter the linked data.
 - If you select a range, 1-2-3 limits the linked data to that range.

Caution 1-2-3 writes over any existing data in the range, including data in hidden columns, rows, or sheets. To avoid writing over existing data, select a cell or range in a blank area of the sheet.

4. (Optional) To ensure that the columns are always as wide as the numeric information, select "Adjust column widths to fit Web data."
5. Click OK.

{button ,AL('H_123_GET_DATA_FROM_WEB_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_BREAKING_THE_CONNECTION_TO_THE_WEB_STEPS;H_123_REFRESH_WEB_DATA_STEPS;H_123_SELECTING_A_WEB_TABLE_STEPS;H_123_MOVING_WEB_TABLES_STEPS;H_123_PRINTING_WEB_TABLES_STEPS;H_123_DELETING_WEB_TABLES_STEPS;H_123_RENAMING_A_WEB_TABLE_STEPS;H_123_SIZING_A_WEB_TABLE_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Details: Getting data from the Web

You can create a Web table from the Internet or an intranet.

Note You can click the hyperlink in the Web table to launch your browser and go to the source Web page.

Specifying the Web address (URL)

You can type the address of the Web page containing the information you want to bring into 1-2-3, select it from the list of recently used Web addresses, or browse to find the page you want. The maximum number of URLs displayed is 10. The character limit for the URL string is 255.

Click Browse to launch the default Web browser, so you can find the URL (and copy it) or verify the one entered. If the "Web address (URL)" box is filled in, the browser opens to the specified URL. In the browser, you can copy the correct URL to the Clipboard, then return to 1-2-3 and paste it into the "Web address (URL)" box.

If the "Web address (URL)" box is blank when you click Browse, 1-2-3 displays the Lotus home page (www.lotus.com).

Selecting the sheet location for the Web table

To specify the range where you want to display the Web table, you can:

- Select a single cell - 1-2-3 uses this as the top left corner of the range and enters all the data in the sheet.
- Select a range - 1-2-3 fills only the data that fits in this range into the sheet. If all the data does not fit in the selected range, the bottom (if more rows available) or right border (if more columns available) of the Web table displays as a dashed border.



You can drag the border to display more of the data.

Note A Web table range cannot span more than one sheet. You cannot specify a range in another file as the sheet location. Also, if the data retrieved is more than 65,536 rows or 256 columns, 1-2-3 retrieves only 65,536 rows and 256 columns worth of data.

Adjusting column widths to fit Web data

1-2-3 adjusts column widths in the Web table to fit the widest number in each column after the data is retrieved.

Web tables and versions

You can create a version inside or overlapping a Web table. If you version a Web table, the version frame appears on top of the Web table frame. You can create a Web table on top of a version; however, doing so writes over the data in the version.

Web tables and query tables

You can analyze or sort the data in a Web table by using the Web table as the source database table for a query table.

The Web table data you want to analyze must be set up like a database table. For more information, see [Overview: Query tables](#).

{button ,AL('H_123_GET_DATA_FROM_WEB_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_GETTING_READY_TO_CREATE_A_DQA_QUERY_TABLE_STEPS;H_DB_CREATING_QUERY_TABLE_STEPS;',0)} [See related topics](#)

Breaking the connection to the Web

You can disconnect the Web table from the source Web page if you no longer need to update the data.

1. Select the Web table for which you want to break the connection.
2. From the Web Table menu, choose Break Connection to Web.

Tip You can also break the connection by right-clicking on the Web table frame and choosing Break Connection to Web.

When you disconnect the Web table, 1-2-3 removes the frame and URL. The data in the range is no longer connected to the Web and will not get refreshed. However, you can click the hyperlink to get to the source Web page.

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_REFRESH_WEB_DATA_STEPS;H_123_DELETING_WEB_TABLES_STEPS;',0)} See related topics

Refreshing data in a Web table

Every time you refresh data in a Web table, 1-2-3 updates the data in the Web table with the source data on the Web. 1-2-3 overwrites any changes you made to the Web table data since the last refresh.

Refreshing the current Web table

1. Select the Web table you want to refresh.
2. From the Web Table menu, choose Refresh Now.

Tip You can also click the Refresh button on the Web table frame.

Refreshing one or more Web tables

1. From the File menu, choose Internet, and then choose Refresh Web Data.



2. Do one of the following:
 - To refresh all Web tables in the current workbook, click Refresh All.
 - To refresh one Web table, select the table in the list, and click Refresh. Then click Done.

{button ,AL('H_123_REFRESH_WEB_DATA_DETAILS',1)} [See details](#)

{button ,AL('H_123_SELECTING_REFRESH_OPTIONS_FOR_A_WEB_TABLE_STEPS;H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_BREAKING_THE_CONNECTION_TO_THE_WEB_STEPS;H_123_SIZING_A_WEB_TABLE_STEPS;',0)} [See related topics](#)

Details: Refreshing data in a Web table

When you change the size of the Web table range, 1-2-3 refreshes the data.

Using Web Table - Web Table Properties on the Refresh tab of the Web Table InfoBox, you can specify whether you want to refresh manually or automatically, and whether you want to refresh when you open the file.



{button ,AL('H_123_REFRESH_WEB_DATA_STEPS',1)} [Go to procedure](#)

Deleting a Web table

You can delete the Web table and all its associated data.

1. Select the Web table you want to delete.
2. Press DEL.

Tip You can also delete a Web table by right-clicking the Web table frame and choosing Clear.

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_BREAKING_THE_CONNECTION_TO_THE_WEB_STEPS;',0)} See related topics

Moving a Web table

Moving a Web table by dragging

1. Select the Web table you want to move.
2. Drag the Web table frame (the title bar or border) to a new location.

Moving a Web table using the InfoBox

1. Click the Web table frame to select the Web table.
2. From the Web Table menu, choose Web Table Properties.
3. Click the Range tab.
4. Enter a different range or use the range selector to select the new location for the Web table.

Note If you specify a range of a different size, 1-2-3 refreshes the Web table.

5. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_123_MOVING_WEB_TABLES_DETAILS',1)} See details

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_DELETING_WEB_TABLES_STEPS;H_123_S
IZING_A_WEB_TABLE_STEPS;',0)} See related topics

Details: Moving a Web table

If you drag or paste data into either of the anchor cells for the Web table, even if the anchor cell is blank, a message appears indicating that you are about to write over an anchor cell. Overwriting an anchor cell disconnects the table from the Web and removes the Web table frame.

{button ,AL('H_123_MOVING_WEB_TABLES_STEPS',1)} [Go to procedure](#)

Selecting a Web table

You can select a Web table by clicking the Web table frame or title bar. The frame is selected and the Web Table menu displays on the menu bar. Handles appear on all sides and corners of the selected Web table.

Note When you click a cell or select a range inside a Web table, you are selecting the data in the Web table range, not the Web table. To select all the cells inside the Web table, right-click the Web table frame and choose Select Table Range.

You can also choose Edit - Go To to select a Web table if it is out of view or if the frame is turned off.

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER',0)} [See related topics](#)

Sizing a Web table

When you resize a Web table, 1-2-3 refreshes the table.

Caution You can size the Web table to be larger than the Web table data, and if you do, 1-2-3 writes over existing data in the range (including data in hidden columns, rows, or sheets), even if the Web table has no data to put there. If you accidentally write over data, you can choose Edit - Undo.

Sizing a Web table by dragging

1. Select the Web table you want to resize.
2. Drag a handle on the border of the Web table.

Sizing a Web table using the InfoBox

When you resize a Web table using the InfoBox, you can also set the table range to be a fixed or variable size.

1. Click the Web table frame to select the Web table.
2. From the Web Table menu, choose Web Table Properties.
3. Click the Range tab.



4. Enter a new range or use the range selector to select the new location for the Web table.
5. Under Size of range, select "Variable" or "Fixed."
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_123_SIZING_A_WEB_TABLE_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_MOVING_WEB_TABLES_STEPS;H_123_DELETING_WEB_TABLES_STEPS;',0)} [See related topics](#)

Details: Sizing a Web table

Determining the size of the table

When you create a Web table, 1-2-3 determines the size of the table based on how you selected the range when you created the table.

- If you selected one cell, 1-2-3 sets the table size to "Variable" and enters all the linked data in the sheet.

Note If a Web table is set to "Variable" and you specify a single cell as the new location, the range size will remain variable.

- If you selected a range larger than one cell, 1-2-3 sets the table size to "Fixed" and enters only the data that will fit in the selected range.

However, you can resize the table at any time using the mouse or the InfoBox. See [Sizing a Web table](#).

Selecting the range size

You can select a variable or fixed range size.

- Variable - Shows all the Web table data, starting at the top left cell of the range specified in the "Web table range" box.
- Fixed - Limits the size of the Web table to the range specified in the "Web table range" box.

Moving anchor cells

Whenever you move an [anchor cell](#), 1-2-3 refreshes the table and deletes the data that is no longer within the Web table frame.



When you drag or paste data onto an anchor cell, a message appears indicating the link to the Web table will be broken. If you click OK, 1-2-3 removes the frame and the link to the source.

{button ,AL('H_123_SIZING_A_WEB_TABLE_STEPS',1)} [Go to procedure](#)

Printing a Web table

1. Select the Web table you want to print.
2. From the File menu, choose Print.
3. (Optional) Click Preview & Page Setup to see how the Web table will print.
4. Click Print.

1-2-3 prints the Web table data, but not the frame.

Tip You can also right-click the Web table frame and choose Quick-Print.

{button ,AL('H_123_PRINTING_WEB_TABLES_DETAILS',1)} [See details](#)

{button ,AL('H_PRINT_CHANGING_SELECTION_DETAILS;H_PRINT_OBJECTS_CHARTS_MAPS_STEPS;H_123_WORKING_WITH_WEB_TABLES_OVER;',0)} [See related topics](#)

Details: Printing a Web table**Printing a Web table with the frame and data**

If you print a sheet or workbook that contains a Web table, 1-2-3 prints the frame and the data.

If you select a range that contains the entire Web table (with frame), 1-2-3 prints the frame and the data.

Note If "Charts, maps, drawings, and table frames" is deselected in the Show list in the Include panel of the Preview & Page Setup InfoBox, the Web table frame does not print.

{button ,AL('H_123_PRINTING_WEB_TABLES_STEPS',1)} Go to procedure

Changing a Web table name and source URL

1. Select the Web table for which you want to change the name and address.
 2. From the Web Table menu, choose Web Table Properties.
 3. Click the Basics tab.
 4. Enter a Web table name In the "Web table name" box according to the naming conventions.
 5. In the "Web address (URL)" box, type the address of the Web page containing the information you want to bring into 1-2-3.
1-2-3 will bring in the new data as soon as you press ENTER or move to another option in the InfoBox.
Caution If the Web table is set to "Variable," the new data may write over existing data in the sheet. See Details: Sizing a Web table for more information.
 6. To show or hide the Web table name and borders, select or deselect "Show name and borders."
 7. (Optional) Move, collapse, or close the InfoBox.
-

{button ,AL('H_123_RENAMING_A_WEB_TABLE_DETAILS',1)} See details

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_BREAKING_THE_CONNECTION_TO_THE_WEB_STEPS;H_123_SELECTING_REFRESH_OPTIONS_FOR_A_WEB_TABLE_STEPS;',0)} See related topics

Details: Changing a Web table name and source URL

Hiding the name and border

You can hide the name and border of the Web table. When you deselect this option, 1-2-3 no longer displays the border, but you can still select the frame. Move the mouse to the edge of the range. When the mouse pointer changes to a hand, you can click to select the hidden frame.



Tip You can use Edit - Go To to select a Web table when the name and border are turned off.

To redisplay the hidden border, right-click a cell inside the Web table and choose Show Table Name and Border.

{button ,AL('H_123_RENAMING_A_WEB_TABLE_STEPS',1)} Go to procedure

Selecting refresh options for a Web table

1. Select the Web table for which you want to select refresh options.
2. From the Web Table menu, choose Web Table Properties.
3. Click the Refresh tab.



4. If you want to refresh the Web table each time you open the file, select "Refresh when opening file."
5. If you want to let 1-2-3 change column widths to best fit the data, select "Adjust column widths to fit Web data on refresh."

Note Deselecting this option does not affect the column widths of the current Web table, but sets the table to no longer readjust when refreshing.

6. Select the type of refresh.
7. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_123_SELECTING_REFRESH_OPTIONS_FOR_A_WEB_TABLE_DETAILS',1)} See details

{button ,AL('H_123_WORKING_WITH_WEB_TABLES_OVER;H_123_BREAKING_THE_CONNECTION_TO_THE_WEB_STEPS;H_123_REFRESH_WEB_DATA_STEPS;',0)} See related topics

Details: Selecting refresh options for a Web table

Selecting a refresh method

You can select how you want 1-2-3 to refresh Web tables.

- Manual - When you select "Manual," you must refresh the table using one of the methods described in [Refreshing data in a Web table.](#))
- Automatically refresh every xxx minutes - Performs a refresh on the Web table at the interval specified in the "minutes" box.

{button ,AL('H_123_SELECTING_REFRESH_OPTIONS_FOR_A_WEB_TABLE_STEPS',1)} [Go to procedure](#)

Overview: What-if tables and Backsolving

What-if tables display the results of substituting different values for formula variables. You can use what-if tables to evaluate questions such as "What if my sales went up 30%; how would that affect my profits?"

Backsolving is another way to answer what-if problems that use a formula. Backsolver lets you specify the result of a formula and find the value of one or more variables in the formula.

Setting up and calculating what-if tables

Before making a what-if calculation, you must set up the what-if table in a specific format in the sheet. To set up the table, you enter the formulas and the different values you want to substitute for formula variables.

Then you use Range - Analyze - What-if Table to calculate the formulas using every combination of values for the variables. You can substitute values for one, two, or three variables in formulas. The results appear in one-variable, two-variable, and three-variable what-if tables.



[See example](#)

Backsolving what-if problems

Backsolver lets you specify the result of a formula and see how that changes the value of one or more variables in the formula.

For example, suppose the result of a formula is the monthly payment on a loan, and one of the formula variables is the loan amount. What if you can make a larger monthly payment; how would that affect the amount you can borrow? You can use Backsolver to specify the larger formula result and see how that changes the loan amount variable.



[See example](#)

{button ,AL('H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;H_CALCULATING_WHATIF_TABLES_STEPS;H_CLEARING_WHATIF_TABLE_SETTINGS_STEPS;H_BACKSOLVING_WHATIF_PROBLEMS_STEPS;','0')} [See related topics](#)

Setting up a 1-variable what-if table

You set up a 1-variable what-if table before using Range - Analyze - What-if Table to calculate the results.

1. Decide where you want the table range and make sure there is room for the input values, the formula(s), and the results.

The height of the table range is one cell more than the number of input values, and the width is one cell more than the number of formulas.

Caution Set up the table in a blank part of the sheet so 1-2-3 does not write over existing data when you calculate the results.

2. Place the input cell outside the table range.

To make the input cell easy to locate, label it by entering text, such as "Input cell 1," in the adjacent cell to the left.

3. Leave the top left cell in the table range blank.

4. Enter the formula in the first row of the second column in the table range.

Each formula in the table must refer to this input cell. To verify that the formula works, you can enter a sample value in the input cell.

If you are using more than one formula, place each additional formula in the first row of the table range in an adjacent column to the right. Make sure each formula refers to the input cell.

5. Enter the input values in the first column of the table range starting in the second row.
6. To calculate the results, see Calculating what-if tables.

{button ,AL('H_A_1VARIABLE_WHATIF_TABLE_EX',1)} See example

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_CALCULATING_WHATIF_TABLES_STEPS;H_C
LEARING_WHATIF_TABLE_SETTINGS_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STE
PS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS;',0)} See related topics

Setting up a 2-variable what-if table

You set up a 2-variable what-if table before using Range - Analyze - What-if Table to calculate the results.

1. Decide where you want the table range and make sure there is room for the two sets of input values, the formula, and the results.

The height of the table range is one cell more than the number of values for Input cell 1, and the width is one cell more than the number of values for Input cell 2.

Caution Set up the table in a blank part of the sheet so 1-2-3 does not write over existing data when you calculate the results.

2. Place the two input cells outside the table range.

To make the input cells easy to locate, label them by entering text, such as "Input cell 1" and "Input cell 2," in the adjacent cells to the left.

3. Enter the formula in the top left cell of the table range.

This formula must refer to both input cells. To verify that the formula works, you can enter a sample value in each of the input cells.

4. In the first column of the table range, starting with the cell under the formula, enter the values for Input cell 1.

5. In the first row of the table range, starting with the first cell to the right of the formula, enter the values for Input cell 2.

6. To calculate the results, see [Calculating what-if tables](#).

{button ,AL('H_A_2VARIABLE_WHATIF_TABLE_EX',1)} [See example](#)

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_CALCULATING_WHATIF_TABLES_STEPS;H_C
LEARING_WHATIF_TABLE_SETTINGS_STEPS;H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STE
P;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;',0)} [See related topics](#)

Setting up a 3-variable what-if table

You set up a 3-variable what-if table before using Range - Analyze - What-if Table to calculate the results.

1. Decide where you want the 3D table range and make sure there is room for the input values, the formula, and the results.

The table range must be in the same location in consecutive sheets, and it spans a number of sheets equal to the number of values for Input cell 3.

Caution Set up the table range in blank areas of the sheets so 1-2-3 does not write over existing data when you calculate the results.

2. Place the three input cells outside the table range.

To make the input cells easy to locate, label them by entering text, such as "Input cell 1," "Input cell 2," and "Input cell 3" in the adjacent cells to the left.

3. Enter the formula in a cell outside the table range.

Make sure the formula refers to all three input cells. To verify that the formula works, you can enter a sample value in each of the input cells.

4. In the first column of the table range in the first sheet, starting in the second row of the table, enter the values for Input cell 1.

5. In the first row of the table range in the first sheet, starting in the second column of the table, enter the values for Input cell 2.

6. Enter the values for Input cell 1 and Input cell 2 to the same position in each sheet in the 3D table range.

In most cases, the values for these input cells are the same in each sheet, and you can copy them from one sheet to the others. These values, however, can also be different in each sheet.

7. Enter a value for Input cell 3 in the top left cell of the table range in each sheet.

8. To calculate the results, see Calculating what-if tables.

{button ,AL('H_A_3VARIABLE_WHATIF_TABLE_EX',1)} See example

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_CALCULATING_WHATIF_TABLES_STEPS;H_C
LEARING_WHATIF_TABLE_SETTINGS_STEPS;H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEP
S;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS;',0)} See related topics

Example: 1-variable what-if table

A 1-variable what-if table displays the results of substituting different values for one variable in one or more formulas.

1-variable table with one formula

You can use a 1-variable table to calculate monthly payments for a 30-year mortgage of \$80,000 at various interest rates. In this what-if problem, you substitute values for a single variable: the interest rate.

The illustration below shows how to set up this 1-variable table. You put the input cell outside the table range. You put the formula(s) and the values for the input cell in the table range and leave room for the results.

Formula in C2

A:C2						
A	A	B	C	D	E	F
1	Input cell 1	7.5%				
2			\$559.37			
3		8.0%				
4	Input values	8.5%				
5		9.0%				
6		9.5%				
7		10.0%				

Table range, B2..C7

After you use Range - Analyze - What-if Table to calculate the formula in a 1-variable table, the results appear in the results area, as shown below.

B:C2						
B	A	B	C	D	E	F
1	Input cell 1	7.5%				
2			\$559.37			
3		8.0%	\$587.01			
4		8.5%	\$615.13			
5		9.0%	\$643.70			
6		9.5%	\$672.68			
7		10.0%	\$702.06			

Results

1-variable table with more than one formula

You can calculate more than one formula in a 1-variable what-if table, as long as the other formulas all use the same input values.

The table below is the same as the previous one, except that it contains an additional formula to calculate the monthly interest rate.

C:D2					
C	A	B	C	D	E
1	Input cell 1	7.5%			
2			\$559.37	0.6250%	
3		8.0%	\$587.01	0.6667%	
4		8.5%	\$615.13	0.7083%	
5		9.0%	\$643.70	0.7500%	
6		9.5%	\$672.68	0.7917%	
7		10.0%	\$702.06	0.8333%	

Results

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_A_2VARIABLE_WHATIF_TABLE_EX;H_A_3VARIABLE_WHATIF_TABLE_EX;H_CALCULATING_WHATIF_TABLES_STEPS;H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS;','0)} [See related topics](#)

Example: 2-variable what-if table

A 2-variable what-if table displays the result of calculating a formula by substituting different values for two variables.

2-variable table example

You can use a 2-variable table to calculate monthly payments for a 20-year mortgage of \$80,000, \$90,000, and \$100,000 at various interest rates. In this what-if problem, you substitute values for two variables: the mortgage amount and the interest rate.

The illustration below shows how to set up this 2-variable table. The table range includes a single formula and the values for Input cell 1 and Input cell 2. You put the two input cells outside the table range.

D:B4				@PMT(B2,B1/12,20*12)		
D	A	B	C	D	E	F
1	Input cell 1	7.5%				
2	Input cell 2	\$80,000	Values for input cell 2			
3						
4	Formula	\$644.47	\$80,000	\$90,000	\$100,000	
5		8.0%				
6		8.5%				
7	Values for input cell 1	9.0%				Table range, B4..E9
8		9.5%				
9		10.0%				

After you use Range - Analyze - What-if Table to calculate the formula in a 2-variable table, the results appear in the results area, as shown below.

E:B4				@PMT(B2,B1/12,20*12)		
E	A	B	C	D	E	F
1	Input cell 1	7.5%				
2	Input cell 2	\$80,000				
3						
4		\$644.47	\$80,000	\$90,000	\$100,000	
5		8.0%	\$669.15	\$752.80	\$836.44	
6		8.5%	\$694.26	\$781.04	\$867.82	
7		9.0%	\$719.78	\$809.75	\$899.73	Results
8		9.5%	\$745.70	\$838.92	\$932.13	
9		10.0%	\$772.02	\$868.52	\$965.02	

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_A_1VARIABLE_WHATIF_TABLE_EX;H_A_3VARIABLE_WHATIF_TABLE_EX;H_CALCULATING_WHATIF_TABLES_STEPS;H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS','0)} [See related topics](#)

Example: 3-variable what-if table

A 3-variable what-if table displays the results of calculating a formula by substituting different values for three variables.

3-variable table example

You can use a 3-variable table to calculate monthly payments for a mortgage of \$80,000, \$90,000, and \$100,000 using various interest rates, and a number of different terms, such as 10, 20, and 30 years. In this what-if problem, you substitute values for three variables: the mortgage amount, the interest rate, and the term of the loan.

The illustration below shows how to set up this 3-variable table with a 3D range that spans three sheets.

H	A	B	C	D				
1	30	\$80,000	\$90,000	\$100,000				
2	8.0%	G	A	B	C	D		
3	8.5%	1	20	\$80,000	\$90,000	\$100,000		
4	9.0%	2	8.0%	F	A	B	C	D
5	9.5%	3	8.5%	1	10	\$80,000	\$90,000	\$100,000
		4	9.0%	2	8.0%			
		5	9.5%	3	8.5%			
				4	9.0%			
				5	9.5%			
				6				
				7		Input cell 1	7.5%	
				8		Input cell 2	\$80,000	
				9		Input cell 3	10	
				10				
				11		\$949.61		

3rd value for input cell 3

2nd value for input cell 3

1st value for input cell 3

Formula
@PMT(C8,C7/12,C9*12)

Values for input cell 2

Values for input cell 1

Input cells 1, 2 and 3

The table range in a 3-variable table always includes three sheets:

- In the first sheet, set up the formula and the three input cells outside the table range.
- On all three sheets, set up the values for Input cells 1, 2, and 3 inside the table range.
- The value for Input cell 3 goes in the upper left corner of the table range.
- In this example, the values for Input cells 1 and 2 are the same in all three sheets, but the value for Input cell 3, the term, is different in each sheet.

After you use Range - Analyze - What-if Table to calculate the formula in a 3-variable table, the results appear in the results area of the table range in each sheet.

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;H_A_1VARIABLE_WHATIF_TABLE_EX;H_A_2VARIABLE_WHATIF_TABLE_EX;H_CALCULATING_WHATIF_TABLES_STEPS;H_CLEARING_WHATIF_TABLE_SETTINGS_STEPS;H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS','0)} See related topics

Calculating what-if tables

After setting up a 1-variable, 2-variable, or 3-variable what-if table, you can calculate the table to see the results.



[See example](#)

1. Select the table range. For a 3-variable table, select the 3D table range.
For 1-variable and 2-variable tables, the table range includes the formula(s) and input values, but not the input cell.
For a 3-variable table, the 3D table range includes the input values, but not the formula or the input cells.
2. From the Range menu, choose Analyze, and then choose What-if Table.
3. Under "Select the number of input cell(s)," click 1, 2, or 3 depending on the type of table you are calculating.
4. Specify the input cell(s) in the appropriate input cell box(es).
5. For a 3-variable table, specify the cell that contains the formula in the "Formula cell" box.
6. Click OK.

{button ,AL('H_CALCULATING_WHATIF_TABLES_DETAILS',1)} [See details](#)

{button ,AL('H_SETTING_UP_A_ONE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_THREE_VARIABLE_WHATIF_TABLE_STEPS;H_SETTING_UP_A_TWO_VARIABLE_WHATIF_TABLE_STEPS;H_WHATIF_TABLES_AND_BACKSOLVING_OVER;',0)} [See related topics](#)

Details: Calculating what-if tables

Recalculating what-if tables

To recalculate your most recently calculated what-if table, enter new input values in the sheet and press F8 (TABLE).

{button ,AL('H_CALCULATING_WHATIF_TABLES_STEPS',1)} [Go to procedure](#)

Clearing what-if table settings

You can clear the table range and input cell settings for all what-if tables in the current workbook.

1. Make sure the [cell pointer](#) is in the workbook containing the what-if tables whose settings you want to clear.
2. From the Range menu, choose Analyze, and then choose What-if Table.
3. Click Reset.

{button ,AL('H_CALCULATING_WHATIF_TABLES_STEPS;H_WHATIF_TABLES_AND_BACKSOLVING_OVER;','0)}
[See related topics](#)

Backsolving what-if problems

You can specify the result of a formula and backsolve to find the value of one or more variables in the formula.

1. Choose Range - Analyze - Backsolver.



2. In the "Make the formula in this cell" box, specify the cell containing the formula.
3. In the "Equal to this value" box, enter the value you want as the result of the formula.
4. In the "By changing cell(s)" box, specify the range containing the variable(s) you want to change.
5. Click OK.

Note Backsolver changes the values of formula variables. If other formulas depend on these variables, 1-2-3 recalculates these formulas. To change the variables back to their original values, press CTRL+Z or click Undo immediately after using Backsolver.

{button ,AL('H_BACKSOLVING_WHATIF_PROBLEMS_DETAILS',1)} [See details](#)

{button ,AL('H_BACKSOLVER_EXAMPLE_EX',1)} [See example](#)

{button ,AL('H_WHATIF_TABLES_AND_BACKSOLVING_OVER;',0)} [See related topics](#)

Details: Backsolving what-if problems

Using Backsolver options

To backsolve what-if problems, enter data for the following options:

- Make the formula in this cell -- enter the address of a cell containing the formula you want to result in a specified value. If you enter a multi-cell range, Backsolver uses only the top left cell in the range. The formula in the cell whose address you enter must refer to the cell(s) specified in the "By changing cell(s)" box, either directly or indirectly. If the formula in the cell you specify contains @functions, each @function must result in a number; the formula cannot use string @functions.
- Equal to this value -- specify a numeric value you want as the result of the formula. You can enter a number, formula, or a cell reference. The cell you reference must contain a number or a formula that produces a number. If you enter a formula that contains @functions, these @functions must result in a number.
- By changing cell(s) -- enter the address of one or more cells containing the value(s) you want Backsolver to change. Do not enter the address of protected cells, formula cells, or blank cells. If you enter a range, Backsolver changes the value in each cell by the same percentage.

Note If you enter formulas in the Backsolver dialog box, 1-2-3 evaluates these formulas when you choose OK. You cannot recalculate the formulas by pressing F9 (CALC) while in the dialog box. Also, the next time you open the dialog box, it contains the formula value but not the formula.

{button ,AL('H_BACKSOLVING_WHATIF_PROBLEMS_STEPS',1)} Go to procedure

Example: Backsolving a what-if problem

You specify the formula result you want and indicate which variable(s) you want to change. Backsolver then calculates the formula to arrive at the specified result and changes the value of the variable(s) in the sheet.

Changing a single variable

The @PMT formula in the illustration below calculates a monthly loan payment based on a loan amount of \$100,000, an interest rate of 12%, and a term of 30 years. Using these values, @PMT results in a monthly loan payment of \$1,028.61.

I:B2			@PMT(B1,B3/12,B4*12)		
I	A	B	C	D	E
1	Loan Amount	\$100,000			
2	Monthly Payment	\$1,028.61			
3	Interest Rate	12.0%			
4	Term (years)	30			

What if you can afford a higher monthly payment of \$1,200; how does that affect the amount of money you can borrow? You can specify \$1,200 as the result of @PMT and backsolve to find the value of the loan amount variable. The illustration below shows how Backsolver recalculates @PMT to result in a monthly payment of \$1,200, entering a changed loan amount variable of \$116,662 in cell B1.

J:B2			@PMT(B1,B3/12,B4*12)		
J	A	B	C	D	E
1	Loan Amount	\$116,662.00			
2	Monthly Payment	\$1,200.00			
3	Interest Rate	12.0%			
4	Term (years)	30			

Changing several variables

As well as using Backsolver to change the value of a single variable, you can also change more than one variable. You can change a range of variables by the same percentage so a formula results in the value you specify.

In the illustration below, the \$299,603 result of @SUM depends on the values of the variables in the range B3..B6.

K:B8			@SUM(B3..B6)	
K	A	B	C	D
1	Budget Items			
2				
3	Salaries	\$132,786.00		
4	Benefits	\$110,954.00		
5	Advertising	\$17,896.00		
6	Office Expenses	\$37,967.00		
7				
8	Total Expenses	\$299,603.00		

What if you reduce your total expenses to \$179,000; how would that affect each budget item? As shown in the illustration below, you can use Backsolver to reduce all the budget items by the same percentage to result in your goal of \$179,000.

L:B8			@SUM(B3..B6)	
L	A	B	C	D
1	Budget Items			
2				
3	Salaries	\$79,333.97		
4	Benefits	\$66,290.28		
5	Advertising	\$10,692.10		
6	Office Expenses	\$22,683.66		
7				
8	Total Expenses	\$179,000.00		

{button ,AL('H_BACKSOLVING_WHATIF_PROBLEMS_STEPS;H_WHATIF_TABLES_AND_BACKSOLVING_OVER;
,0)} See related topics

What-if Table dialog box

Use this dialog box to calculate a 1-variable, 2-variable, or 3-variable what-if table.

Choose a task

[Calculating what-if tables](#)

[Overview: What-if tables and Backsolver](#)

[Setting up a 1-variable what-if table](#)

[Setting up a 2-variable what-if table](#)

[Setting up a 3-variable what-if table](#)

{button ,AL('H_A_1VARIABLE_WHATIF_TABLE_EX;H_A_2VARIABLE_WHATIF_TABLE_EX;H_A_3VARIABLE_WHATIF_TABLE_EX;',0)} [See related topics](#)

Cascading windows

Cascading stacks all windows diagonally, with their title bars showing.

To cascade windows, choose Cascade from the Window menu.

1-2-3 displays the active window on top.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

```
{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_MOVING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;  
H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS;',0)} See related  
topics
```


Details: Creating a new window

Scrolling through multiple Workbook windows

You scroll through each Workbook window independently.

Making changes in a workbook with multiple windows

When you make changes in a Workbook window, the changes are reflected in all windows for that workbook.

How 1-2-3 names multiple windows for a workbook

1-2-3 automatically names each new window. For example, if you create a new window for a workbook named May Expenses, 1-2-3 names the new window May Expenses.123: Window 2. 1-2-3 names subsequent windows May Expenses.123: Window 3, and so forth.

Saving and closing a workbook with multiple windows

If you save a workbook with multiple windows, 1-2-3 saves the information for each window.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

{button ,AL('H_CREATING_A_NEW_WINDOW_STEPS',1)} Go to procedure

Creating a new window

Create additional windows for a workbook to view different portions of the workbook simultaneously.

To create a new window for the current workbook, choose New Window from the Window menu.

{button ,AL('H_CREATING_A_NEW_WINDOW_DETAILS',1)} See details

{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;H_SPLITTING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS;H_VIEWING_OPEN_WINDOWS_STEPS;H_MOVING_WINDOWS_STEPS',0)} See related topics

Moving windows

To move a window, drag the title bar of the window to the new location.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

```
{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS;',0)} See  
related topics
```

Sizing windows

You can change the dimensions of a window.

1. Position the mouse pointer on the border or corner of the window so that the mouse pointer changes shape.



2. Drag the border or corner.
3. Release the mouse button when the window is the size you want.





{button ,AL('H_SIZING_WINDOWS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_MOVING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS','0')} [See related topics](#)

Details: Sizing windows

Dragging a border sizes the window horizontally or vertically. Dragging a corner sizes both horizontally and vertically.

Other ways to size windows

Click this button	To
	Minimize the window to an icon
	Expand the window to its maximum size
	Restore the window to its previous size
	Close the window

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

{button ,AL('H_SIZING_WINDOWS_STEPS',1)} [Go to procedure](#)

Details: Splitting windows

Where 1-2-3 splits the window

If you select	1-2-3 splits the window
---------------	-------------------------

Top-Bottom	Horizontally, above the cell pointer
Left-Right	Vertically, to the left of the cell pointer
Four-way	Horizontally and vertically, above and to the left of the <u>cell pointer</u>

Other ways to split windows

You can also split a window by dragging the horizontal or vertical splitter to where you want to split the window.

Drag	To split the window
------	---------------------



Horizontally (top to bottom)



Vertically (left to right)

Adjusting the size of panes

You can drag the horizontal or vertical splitters to adjust the size of a pane. If the window is split four ways, you can adjust the size of all four panes by dragging the four-way splitter, located in the center of the four panes.



Note The four-way splitter is visible only when synchronized scrolling is turned off.

Restoring a window to a single pane

You can restore a split window to one pane by choosing View - Clear Split, or by dragging the horizontal or vertical splitters.

Scrolling through split windows

Synchronized scrolling lets you scroll panes simultaneously in a split window:

- In a horizontal split, you can scroll the panes together horizontally.
- In a vertical split, you can scroll the panes together vertically.
- In a four-way split, you can scroll the panes together horizontally and vertically.

To change whether panes scroll individually or simultaneously, choose either Unsyncronize Split or Synchronize Split from the View menu.

{button ,AL('H_SPLITTING_WINDOWS_STEPS',1)} [Go to procedure](#)

Splitting windows

You can split a window into panes to see more than one portion of a sheet at a time.

1. From the View menu, choose Split.
2. Select Top-Bottom, Left-Right, or Four-way.
3. (Optional) To scroll through panes individually, deselect "Synchronize scrolling."
4. Click OK.

{button ,AL('H_SPLITTING_WINDOWS_DETAILS',1)} [See details](#)

{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_CREATING_A_NEW_WINDOW_STEPS;H_VIEWING_OPEN_WINDOWS_STEPS;',0)} [See related topics](#)

Tiling windows side by side

To tile all windows side by side, choose Tile Left-Right from the Window menu.

1-2-3 displays the active window in the top left corner.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

```
{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_MOVING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS';0)}
```

[See related topics](#)

Tiling windows top to bottom

To tile all windows top to bottom, choose Tile Top-Bottom from the Window menu.

1-2-3 displays the active window in the top left corner.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

```
{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_MOVING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;',0)} See related topics
```

Viewing open windows

You can select which Workbook window is active.

1. From the Window menu, choose the name of the window you want to display.
2. (Optional) If you have more than nine windows open and do not see the window you want on the menu, choose More Windows.

Related SmartIcons



Arranges open windows diagonally



Arranges open windows side by side



Arranges open windows top to bottom

{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS',0)} [See related topics](#)

Overview: Workbook windows

Within the 1-2-3 window, each workbook appears in its own window. You can size, move, arrange, and close Workbook windows.

About Workbook windows

Initially, each 1-2-3 workbook appears in one window. You can create additional windows for the same workbook, and you can split a window into panes to see different parts of the workbook simultaneously. A window can contain up to four panes.

For example, if your workbook contains more than one sheet, you can create a new window and display a different sheet in each window. Or, you can split the window and display a different sheet in each pane.

Workbook windows let you view the same workbook in different windows:

The image shows two overlapping Excel windows. The top window, titled 'Sales.123: Window 1', displays a spreadsheet with columns 'Jan', 'Feb', and 'Mar'. The data is as follows:

	Jan	Feb	Mar
A	A		B
1		1200	
2		1201	
3		1202	
4		1203	

The bottom window, titled 'Sales.123: Window 2', displays a spreadsheet with columns 'Jan', 'Feb', and 'Mar'. The data is as follows:

	Jan	Feb	Mar
A	A		B
1		1200	
2		1201	
3		1202	

Panes are views of a workbook in one window:

The image shows a screenshot of a spreadsheet application window titled "Sales.123". The window is split into two panes. The left pane shows a table with columns "Jan", "Feb", and "Mar", and rows 1, 2, and 3. The right pane shows a table with columns "Jan", "Feb", "Mar", and "C", and rows 1, 2, and 3. Both tables contain numerical data in the "Feb" and "Mar" columns.

	Jan	Feb	Mar
A	A		B
1			
2		1201	
3		1202	

	Jan	Feb	Mar	C
A	A		B	C
1				
2		1201		
3		1202		

You can scroll the panes of a window together (synchronized scrolling) or independently. Workbook windows scroll independently.

Although you can display multiple Workbook windows simultaneously, you can only work in one window at a time. The active window contains the cell pointer.

Manipulating Workbook windows

Using the mouse is the easiest and most efficient way to size, move, or close windows. You can also use the Window commands and the commands in each window's Control menu.

```
{button ,AL('H_WORKBOOK_WINDOWS_OVER;H_CASCADING_WINDOWS_STEPS;H_CREATING_A_NEW_WINDOW_STEPS;H_MOVING_WINDOWS_STEPS;H_SIZING_WINDOWS_STEPS;H_SPLITTING_WINDOWS_STEPS;H_TILING_WINDOWS_HORIZONTALLY_STEPS;H_TILING_WINDOWS_VERTICALLY_STEPS;H_VIEWING_OPEN_WINDOWS_STEPS',0)} See related topics
```

Overview: Hiding data

Hiding cell contents, columns, rows, sheets, and graphic objects is a good way to keep other users of your workbooks focused on what you want them to see rather than on confidential or distracting information.

For example, suppose you have a workbook with two sheets, one that contains data and a chart, and the other that contains macros and calculations. To help users focus on the data and the chart, you can hide the sheet containing the macros and calculations.

When you hide a sheet, 1-2-3 hides the tab of that sheet. When you hide a column or row, 1-2-3 hides the column letter or row number.

Column B is hidden

A	A	C
1		
3		

Row 2 is hidden

You can use the [InfoBox](#) to hide selected cells and graphic objects.

Protecting hidden data

You can hide cell contents, but until you protect the hidden cells and lock the sheet or workbook that contains them, the cell contents appear in the [contents box](#) and users can edit data in these cells.

However, when you lock the sheet or the workbook, users cannot see or edit the contents of any protected and hidden cell. For more information, see [Overview: Protecting data](#).

Effects of hiding cells, columns, rows, sheets, and graphic objects

- You cannot move the cell pointer to hidden sheets, columns, or rows.
- You cannot print hidden sheets, columns, rows, or graphic objects.
- You can perform 1-2-3 operations on ranges in hidden sheets, columns, or rows.
To perform a command on a range in a hidden sheet, column, or row, you can type the address or range name in a dialog box or in the InfoBox, or you can select the surrounding sheets, columns, or rows.
- Formulas containing references to ranges in hidden sheets, columns, or rows still work correctly. When creating a formula that refers to data in a hidden sheet, column, or row, type the range name or address in the formula.
- You can prevent changes to hidden data only by protecting it and locking the sheet or workbook.

```
{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_STEPS;H_DISPLAYING_HIDDEN_ROWS_STEPS;H_DISPLAYING_HIDDEN_SHEETS_STEPS;H_HIDING_CELL_CONTENTS_STEPS;H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_DISPLAYING_HIDDEN_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_HIDING_COLUMNS_STEPS;H_HIDING_ROWS_STEPS;H_HIDING_SHEETS_STEPS;H_HIDING_OR_REDISPLAYING_GRAPHICS_STEPS','0)}
```

[See related topics](#)

Hiding cell contents

Hiding confidential or distracting information is often a good idea when sharing data. When you hide the data in selected cells, the cells appear to be empty.

Want the big picture? See [Overview: Hiding data](#).

1. [Select](#) the cells whose contents you want to hide.
2. From the Range menu, choose Range Properties.



3. Click the Security tab in the [InfoBox](#).



4. Select "Hide cell contents."
5. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_HIDING_CELL_CONTENTS_DETAILS',1)} [See details](#)

{button ,AL('H_HIDING_DATA_OVER;',0)} [See related topics](#)

Details: Hiding cell contents

Protecting hidden cells

If hidden cells are not protected and the sheet or workbook containing them is not locked, commands that enter new data can write over data in the hidden cells. When you select a hidden cell, the cell contents appear in the contents box.

When you protect hidden cells and lock the sheet or workbook that contains them, users cannot see or edit the contents of these cells.

When you select an unprotected hidden cell, "U" appears in the status indicator in the status bar. When you select a protected hidden cell, "PR" appears.

{button ,AL('H_HIDING_CELL_CONTENTS_STEPS',1)} Go to procedure

{button ,AL('H_PROTECTING_DATA_OVER;H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_LOCKING_SHEET_CONTENTS_STEPS;',0)} See related topics

Hiding sheets

You can hide sheets to prevent display and printing of data.

Want the big picture? See [Overview: Hiding data](#).

1. [Select](#) the tab of each sheet you want to hide.
2. From the Sheet menu, choose Hide.



Tip When the sheet tab is selected, you can right-click the sheet tab, then from the shortcut menu, select Hide.

Note You cannot hide a sheet if it is the only sheet in the workbook.

{button ,AL('H_HIDING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_DISPLAYING_HIDDEN_SHEETS_STEPS;H_HIDING_COLUMNS_STEPS;H_HIDING_DATA_OVER;
H_HIDING_ROWS_STEPS;H_SHEETS_OVER;H_HIDING_OR_SHOWING_TABS_STEPS',0)} [See related topics](#)

Details: Hiding sheets**Another way to hide sheets**

You can hide the current sheet by choosing Sheet - Sheet Properties (Basics tab) and selecting "Hide sheet."

Protecting and locking hidden data

If hidden sheets are not protected and the workbook containing them is not locked, commands that enter new data can write over data in the hidden sheets.

{button ,AL('H_HIDING_SHEETS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROTECTING_DATA_OVER;H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_LOCKING_SHEET_CONTENTS_STEPS;',0)} [See related topics](#)

Hiding columns

You can drag a column border to hide a column.

Want the big picture? See [Overview: Hiding data](#).



[Show me a QuickDemo](#)

1. Position the mouse pointer in the sheet frame on the right border of the column you want to hide.



2. Drag the column border left until the indicator shows the column size as 0 (zero) characters.
3. Release the mouse button.

Note If the current sheet is part of a group, hiding columns in this sheet hides these columns in all sheets in the group.

{button ,AL('H_HIDING_COLUMNS_DETAILS',1)} [See details](#)

{button ,AL('H_HIDING_DATA_OVER;H_DISPLAYING_HIDDEN_COLUMNS_STEPS;H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_HIDING_ROWS_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Hiding columns

Other ways to hide columns

You can hide columns by choosing Range - Range Properties and selecting "Hide column" in the Basics panel of the [InfoBox](#). You can also click the column letter to select the entire column you want to hide, right-click to display the shortcut menu, and then choose Hide Columns.

Hiding several columns at once

To hide more than one column at once, select the entire columns you want to hide and drag the right border of one of them. You can also use the InfoBox or shortcut menu to hide the selected columns.

Protecting hidden data

If hidden columns are not protected and the sheet or workbook containing them is not locked, commands that enter new data can write over data in the hidden columns.

{button ,AL('H_HIDING_COLUMNS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROTECTING_DATA_OVER;H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_LOCKING_SHEET_CONTENTS_STEPS';,0)} [See related topics](#)

Hiding rows

You can drag a row border to hide a row.

Want the big picture? See [Overview: Hiding data](#).

1. Position the mouse pointer in the sheet frame on the bottom border of the row you want to hide.



2. Drag the row border up until the indicator shows the row size as 0 (zero) points.
3. Release the mouse button.

Note If the current sheet is part of a group, hiding rows in this sheet hides these rows in all sheets in the group.

{button ,AL('H_HIDING_ROWS_DETAILS',1)} [See details](#)

{button ,AL('H_DISPLAYING_HIDDEN_ROWS_STEPS;H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_HIDING_DATA_OVER;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;H_HIDING_COLUMNS_STEPS;',0)} [See related topics](#)

Details: Hiding rows

Other ways to hide rows

You can hide rows by choosing Range - Range Properties and selecting "Hide row" in the Basics panel of the [InfoBox](#). You can also click the row number to select the entire row you want to hide, right-click to display the shortcut menu, and then choose Hide Rows.

Hiding several rows at once

To hide more than one row at once, [select](#) the entire rows you want to hide and drag up the bottom border of one of them. You can also use the InfoBox or shortcut menu to hide the selected rows.

Protecting hidden data

If hidden rows are not protected and the sheet or workbook containing them is not locked, commands that enter new data can write over data in the hidden rows.

{button ,AL('H_HIDING_ROWS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_PROTECTING_DATA_OVER;',0)} [See related topics](#)

Displaying hidden columns

You can drag a column border to display hidden columns.

Want the big picture? See [Overview: Hiding data](#).

1. Position the mouse pointer in the sheet frame on the border of a hidden column.
The pointer changes to gray.
2. Drag the border of the hidden column right until the indicator displays the size you want.
3. Release the mouse button.

Note If the current sheet is part of a group, displaying columns in this sheet displays these columns in all sheets in the group.

{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_DETAILS',1)} [See details](#)

{button ,AL('H_DISPLAYING_HIDDEN_ROWS_STEPS;H_HIDING_COLUMNS_STEPS;H_HIDING_DATA_OVER;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Displaying hidden columns

Other ways to display hidden columns

You can also display hidden columns using the shortcut menu. Select entire columns on either side of the hidden one(s), right-click to display the shortcut menu, and choose Unhide Columns.

For information about displaying hidden columns using the InfoBox, see [Displaying hidden columns or rows using the InfoBox](#).

Width of redisplayed columns

When you use the InfoBox or shortcut menu to display hidden columns, the width of the redisplayed column is the same as before it was hidden.

{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_STEPS',1)} [Go to procedure](#)

Displaying hidden rows

You can drag a row border to display hidden rows.

Want the big picture? See [Overview: Hiding data](#).

1. Position the mouse pointer in the sheet frame on the border of a hidden row.
The pointer changes to gray.
2. Drag the border of the hidden row down until the indicator displays the size you want.
3. Release the mouse button.

Note If the current sheet is part of a group, displaying rows in this sheet displays these rows in all sheets in the group.

{button ,AL('H_DISPLAYING_HIDDEN_ROWS_DETAILS',1)} [See details](#)

{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_STEPS;H_HIDING_COLUMNS_STEPS;H_HIDING_DATA_OVERVIEW;H_HIDING_ROWS_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Displaying hidden rows

Other ways to display hidden rows

You can also display hidden rows using the shortcut menu. Select entire rows above and below the hidden one(s), right-click to display the shortcut menu, and choose Unhide Rows.

For information about displaying hidden rows using the InfoBox, see [Displaying hidden columns or rows using the InfoBox](#).

Height of redisplayed rows

When you use the InfoBox or shortcut menu to display hidden rows, the height of the redisplayed row is the same as before it was hidden.

{button ,AL('H_DISPLAYING_HIDDEN_ROWS_STEPS',1)} [Go to procedure](#)

Displaying hidden sheets

You can redisplay hidden sheets from anywhere in the workbook.

Want the big picture? See [Overview: Hiding data](#).

1. From the Sheet menu, choose Unhide.



2. Select the sheet(s) you want to display.
3. Click OK.

{button ,AL('H_DISPLAYING_HIDDEN_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_HIDING_DATA_OVER;H_HIDING_SHEETS_STEPS;H_SHEETS_OVER;H_HIDING_OR_SHOWING_TABS_STEPS',0)} [See related topics](#)

Details: Displaying hidden sheets**Other ways to display hidden sheets**

You can display hidden sheets using the shortcut menu. Select the tab of any sheet, right-click and choose Unhide from the shortcut menu. In the Unhide dialog box, select the sheet(s) you want to unhide, and click OK.

{button ,AL('H_DISPLAYING_HIDDEN_SHEETS_STEPS',1)} [Go to procedure](#)

Hiding columns or rows using the InfoBox

You can use the [InfoBox](#) to hide columns and rows.

Want the big picture? See [Overview: Hiding data](#).

1. [Select](#) at least one cell in each of the columns or rows you want to hide.
2. From the Range menu, choose Range Properties.



3. Click the Basics tab in the InfoBox.



4. Select "Hide column" or "Hide row."
5. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_HIDING_COLUMNS_STEPS;H_HIDING_DATA_OVER;H_HIDING_ROWS_STEPS;H_THE_INFOBOX_OVER;;H_DISPLAYING_HIDDEN_COLUMNS_STEPS;H_DISPLAYING_HIDDEN_ROWS_STEPS',0)} [See related topics](#)

Details: Hiding columns or rows using the InfoBox

Other ways to hide columns and rows

You can use the mouse to hide columns and rows. For more information, see [Hiding columns](#) and [Hiding rows](#).

Protecting hidden data

If hidden columns and rows are not protected and the sheet or workbook containing them is not locked, commands that enter new data can write over data in the hidden columns and rows.

```
{button ,AL('H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS',1)} Go to procedure  
{button ,AL('H_PROTECTING_DATA_OVER;H_LOCKING_WORKBOOK_CONTENTS_STEPS;H_LOCKING_SHEET_CONTENTS_STEPS;H_PROTECTING_UNPROTECTED_CELLS_IN_A_LOCKED_WORKBOOK_STEPS;H_PROTECTING_UNPROTECTED_CELLS_IN_A_LOCKED_SHEET_STEPS';,0)} See related topics
```

Displaying hidden columns or rows using the InfoBox

You can use the [InfoBox](#) to redisplay hidden columns and rows.

Want the big picture? See [Overview: Hiding data](#).

1. [Select](#) a range that spans the hidden columns or rows you want to display.
For example, to display column B, select a range with at least one cell in column A and one in column C.
2. From the Range menu, choose Range Properties.



3. Click the Basics tab in the InfoBox.



4. Deselect "Hide column" or "Hide row."
When a column or row is hidden, the "Hide column" or "Hide row" box is gray.
5. (Optional) [Move, collapse, or close](#) the InfoBox.

```
{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_OR_ROWS_USING_THE_INFOBOX_DETAILS',1)} See details  
{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_STEPS;H_DISPLAYING_HIDDEN_ROWS_STEPS;H_HIDING_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS;H_HIDING_DATA_OVER;H_THE_INFOBOX_OVER;',0)} See related topics
```

Details: Displaying hidden columns or rows using the InfoBox**Another way to display hidden columns and rows**

You can use the mouse to display hidden columns and rows. For more information, see [Displaying hidden columns](#) and [Displaying hidden rows](#).

Width and height of redisplayed columns and rows

When you use the InfoBox to display hidden columns or rows, the width of the redisplayed column and the height of the redisplayed row are the same as before they were hidden.

{button ,AL('H_DISPLAYING_HIDDEN_COLUMNS_OR_ROWS_USING_THE_INFOBOX_STEPS',1)} [Go to procedure](#)

Inserting columns or rows

You can insert columns or rows in a sheet or group of sheets.

1. Select a range with at least one cell in as many columns or rows as you want to insert.
2. From the Range menu, choose Insert.
3. To insert columns, select "Columns."
4. To insert rows, select "Rows."
5. Click OK.

Note If the current sheet is part of a group, inserting columns or rows in this sheet inserts columns or rows in all sheets in the group.

{button ,AL('H_INSERTING_COLUMNS_OR_ROWS_DETAILS',1)} See details

{button ,AL('H_DELETING_A_RANGE_STEPS;H_DELETING_COLUMNS_OR_ROWS_STEPS;H_DELETING_SHEETS_STEPS;H_INSERTING_A_RANGE_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;H_CREATING_A_SHEET_STEPS',0)} See related topics

Details: Inserting columns or rows

Other ways to insert columns or rows

To insert columns or rows immediately without displaying a dialog box, select as many entire columns or rows as you want to insert, and then do one of the following:

- From the Range menu, choose Insert Columns or Insert Rows.
- Right-click and choose Insert Columns or Insert Rows from the shortcut menu.

How 1-2-3 inserts columns and rows

1-2-3 inserts new rows above the selected rows or range, and new columns to the left of the selected columns or range.

Styles of inserted columns or rows

Inserted columns and rows have the same styles and formats as the column to the left of the inserted columns or the row above the inserted rows.

Width and height of inserted columns or rows

Inserted columns have the same width as the column to the left of the inserted columns. Inserted rows have the same height as the row above the inserted rows. For example, inserted records in a database table have the same height as the other records in the table.

How inserting columns and rows affects formulas

When you insert columns or rows, 1-2-3 redefines named ranges and, if necessary, adjusts addresses in formulas.

For example, if you entered the formula +E6*100 and then inserted two columns to the left of column E, 1-2-3 adjusts the address so that the formula becomes +G6*100.

Note If you insert columns or rows just under or next to a range that a formula refers to, 1-2-3 does not adjust the formula; you must adjust the formula if you want to include the inserted cells.

How inserting columns or rows affects named ranges

If you insert columns or rows into a named range, the named range expands by the number of columns or rows you inserted.

Related SmartIcons



Inserts one or more columns to the left of the selected columns



Inserts blank cells in the selected range and moves existing data down or right



Inserts one or more rows above the selected rows



Inserts one or more sheets before or after the current sheet

{button ,AL('H_INSERTING_COLUMNS_OR_ROWS_STEPS',1)} [Go to procedure](#)

Inserting a range

You can insert a blank range and shift the selected range right or down.

1. Select a range where you want to insert a blank range of the same proportions.
 2. From the Range menu, choose Insert.
 3. Select "Insert in selected range only."
 4. To shift the selected range right, select "Columns."
 5. To shift the selected range down, select "Rows."
 6. Click OK.
-

{button ,AL('H_INSERTING_A_RANGE_DETAILS',1)} See details

{button ,AL('H_DELETING_A_RANGE_STEPS;H_DELETING_COLUMNS_OR_ROWS_STEPS;H_INSERTING_COLUMNS_OR_ROWS_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;',0)} See related topics

Details: Inserting a range

Styles of inserted ranges

When you insert a range, it has the default styles and formats, not those of the range where you inserted it. The range that moves down or to the right keeps its original styles and formats.

How inserting a range affects named ranges

The top-left and bottom-right cells of a named range define the dimensions of the range.

- Inserting a range into a named range can expand it if the inserted range moves the bottom-right cell of the named range.
- Inserting a range above or to the left of a named range can shrink it if the inserted range moves the top-left cell of the named range.

Related SmartIcons



Inserts blank cells in the selected range and moves existing data down or right



Inserts one or more columns to the left of the selected columns



Inserts one or more rows above the selected rows



Inserts one or more sheets before or after the current sheet

{button ,AL('H_INSERTING_A_RANGE_STEPS',1)} [Go to procedure](#)

Deleting columns or rows

You can delete columns or rows from a sheet or group of sheets. Deleting a row or column deletes all the data in the row or column, including data that may be in a part of the sheet you cannot currently see.

1. Select a range with at least one cell in as many columns or rows as you want to delete.
2. From the Range menu, choose Delete.
3. To delete columns, select "Columns."
4. To delete rows, select "Rows."
5. Click OK.

Note If the current sheet is part of a group, deleting columns or rows in this sheet deletes columns or rows in all sheets in the group.

{button ,AL('H_DELETING_COLUMNS_OR_ROWS_DETAILS',1)} See details

{button ,AL('H_DELETING_A_RANGE_STEPS;H_DELETING_SHEETS_STEPS;H_INSERTING_COLUMNS_OR_ROWS_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;H_INSERTING_A_RANGE_STEPS;',0)} See related topics

Details: Deleting columns or rows

Other ways to delete columns or rows

To delete columns or rows immediately without displaying a dialog box, select as many entire columns or rows as you want to delete, and then do one of the following:

- From the Range menu, choose Delete Columns or Delete Rows.
- Right-click and choose Delete Columns or Delete Rows from the shortcut menu.

How 1-2-3 deletes columns and rows

When you delete columns, the columns to the right move left to take the place of what you deleted. When you delete rows, the rows below move up to take the place of what you deleted.

How deleting columns or rows affects formulas

If you delete a column or row containing a range that a formula refers to, the formula results in ERR. Any other formulas that depend on this formula also result in ERR.

How deleting columns or rows affects named ranges

If you delete columns or rows containing cells that are part of a named range, the named range shrinks by the number of columns or rows you deleted.

If you delete an entire named range while deleting columns or rows, the range name becomes undefined, and you must name the range again to define it.

Related SmartIcons



Deletes all columns in the selected range



Deletes all rows in the selected range



Deletes all sheets in the selected range



Deletes the selected range and moves existing data up or left

{button ,AL('H_DELETING_COLUMNS_OR_ROWS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_NAMING_A_RANGE_STEPS',0)} [See related topics](#)

Deleting a range

When you delete a range, you choose whether you want the cells to the right of the range to move left or the cells below the range to move up.

1. Select the range you want to delete.
2. From the Range menu, choose Delete.
3. Select "Delete in selected range only."
4. To delete the selected range and move existing data to the left, select "Columns."
5. To delete the selected range and move existing data up, select "Rows."
6. Click OK.

Note If the current sheet is part of a group, deleting a range in this sheet deletes the range in all sheets in the group.

{button ,AL('H_DELETING_A_RANGE_DETAILS',1)} [See details](#)

{button ,AL('H_DELETING_COLUMNS_OR_ROWS_STEPS;H_DELETING_SHEETS_STEPS;H_INSERTING_A_RANGE_STEPS;H_DELETING_DATA_IN_RANGES_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Deleting a range

How deleting a range affects formulas

If you delete a range that a formula refers to, the formula results in ERR. Any other formulas that depend on this formula also result in ERR.

How deleting a range affects named ranges

The top-left and bottom-right cells of a named range define the dimensions of the range.

- Deleting an entire named range results in the range name becoming undefined, and you must name the range again to define it.
- Deleting a range can affect the size of a named range. When the bottom-right cell of a named range moves because you deleted a range contained in the named range, the named range becomes smaller.

Related SmartIcons



Deletes the selected range and moves existing data up or left



Deletes all columns in the selected range



Deletes all rows in the selected range



Deletes all sheets in the selected range

{button ,AL('H_DELETING_A_RANGE_STEPS';1)} [Go to procedure](#)

{button ,AL('H_NAMING_A_RANGE_STEPS;H_MOVING_A_FORMULA_STEPS';0)} [See related topics](#)

Deleting sheets

You can delete sheets from a workbook using the Sheet menu or the shortcut menu.

1. Select the tab of each sheet you want to delete.
2. From the Sheet menu, choose Delete Sheet.



Tip You can also right-click one of the selected sheet tabs, then choose Delete Sheet from the shortcut menu.

Note You cannot delete all the sheets in a workbook.

{button ,AL('H_DELETING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_CREATING_A_SHEET_STEPS;H_DELETING_COLUMNS_OR_ROWS_STEPS;H_GROUPING_SHEETS_STEPS;H_UNGROUPING_SHEETS_STEPS;H_SHEETS_OVER;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Deleting sheets

Another way to delete sheets

Select a range with at least one cell in each sheet you want to delete, and choose Sheet - Delete Sheet.

How deleting sheets affects formulas

If you delete a sheet containing a range that a formula refers to, the formula results in ERR. Any other formulas that depend on this formula also result in ERR.

How deleting sheets affects named ranges

If you delete sheets containing named ranges, the range names become undefined, and you must name the ranges again to define them.

Related SmartIcons



Deletes all columns in the selected range



Deletes all rows in the selected range



Deletes the selected range and moves existing data up or left

{button ,AL('H_DELETING_SHEETS_STEPS',1)} [Go to procedure](#)

{button ,AL('H_NAMING_A_RANGE_STEPS',0)} [See related topics](#)

Insert dialog box

Use this dialog box to insert ranges, columns, and rows.

Choose a task

[Inserting columns or rows](#)

[Inserting a range](#)

{button ,AL('H_CREATING_A_SHEET_STEPS;',0)} [See related topics](#)

Delete dialog box

Use this dialog box to delete ranges, columns, and rows.

Choose a task

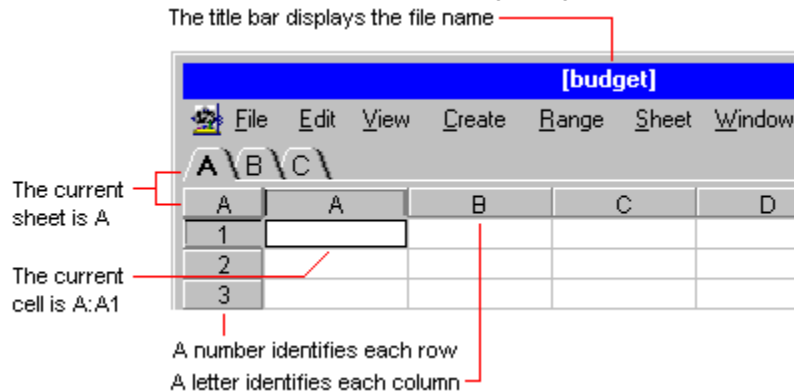
[Deleting columns or rows](#)

[Deleting a range](#)

{button ,AL('H_DELETING_SHEETS_STEPS';,0)} [See related topics](#)

Overview: Sheets

A sheet is an electronic spreadsheet consisting of a grid of 256 columns and 65,536 rows.



Column letters and row numbers

Letters identifying each column in a sheet appear in the sheet frame above each column. Columns are lettered A to IV (A to Z, AA to AZ, BA to BZ, and so on to IV).

Numbers identifying each row appear in the sheet frame to the left of each row. Rows are numbered 1 to 65,536.

The intersection of a column and a row is called a cell. Each cell has an address consisting of a sheet letter followed by a : (colon), a column letter, and a row number. For example, cell A:A1 is in sheet A at the intersection of column A and row 1.

The current cell

The rectangular highlight in the sheet is called the cell pointer. The cell that contains the cell pointer is called the current cell. The sheet containing the current cell is called the current sheet.

When a cell is current, you can enter data in that cell, edit the cell contents, and use the [InfoBox](#) and menu commands to affect the cell contents and style. To make another cell the current cell, you move the cell pointer.

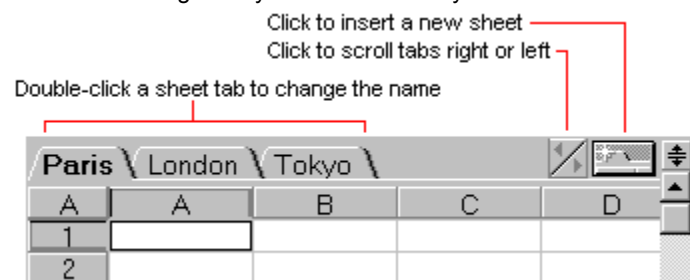
Multiple-sheet workbooks

When you create a workbook, it initially has one sheet. You can create more sheets in the workbook up to a total of 256 sheets. If you have more than one workbook open, the total number of sheets in all the open workbooks cannot exceed 256.

A letter identifies each sheet from A to IV. The letter for each sheet appears in the top left corner of the sheet and on the sheet tab.

Sheet tabs

Each sheet has a tab at the top. You can double-click the tab and enter a name for the sheet. You can also color the sheet tabs to organize your sheets visually.



To go to and display any sheet in a multiple-sheet workbook, click its tab. You can also display more than one sheet at the same time by cascading or tiling windows. For more information, see [Cascading windows](#), [Tiling windows side by side](#), and [Tiling windows top to bottom](#).

To select a [3D range](#), select the range on the first sheet in the range, and then SHIFT+click the tab of the last sheet in the range.

When you have more sheets than you can see in the Sheet window, you can click the tab-scroll arrows to scroll the tabs left or right without changing the current selection. SHIFT+click the tab-scroll arrows to scroll the tabs to the first

or last sheet in the workbook.

Other ways to work with sheets

You can select a sheet tab by clicking the tab, then once the sheet is current, clicking the sheet tab again. When you select a sheet tab, the SmartIcon set for sheets appears and you can right-click to display the shortcut menu for working with sheets.

Grouping sheets

You can group contiguous sheets to apply styles, formats, and other settings from one sheet to other sheets in the group. Grouping sheets is a convenient way to make several sheets look the same. For more information, see [Overview: Grouping sheets.](#)

Freezing titles

You can freeze column and row titles to keep them in view as you scroll through the sheet.

A \				
A	A	B	C	D
1	Test 4 Test 5 Test 6			
2	Joseph Armas	95	82	88
3	Brent Clary	78	78	77
4	Darlene Connors	78	78	85
5	Michael DeGrace	95	91	94

To freeze titles, you can drag a column or row border or use the View - Titles command. You can unfreeze titles when you no longer need to keep them in view.

```
{button ,AL('H_CHANGING_TAB_COLOR_STEPS;H_CREATING_A_SHEET_STEPS;H_FREEZING_COLUMNS_A  
ND_ROWS_AS_TITLES_STEPS;H_GROUPING_SHEETS_STEPS;H_HIDING_OR_SHOWING_TABS_STEPS;H  
_NAMING_A_SHEET_STEPS;H_DELETING_SHEETS_STEPS;;H_SELECTING_SHEETS_STEPS;H_HIDING_S  
HEETS_STEPS;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS;H_MOVING_A  
_SHEET_STEPS',0)} See related topics
```

Creating a sheet

You can create new sheets and place them before or after the current sheet.

Want the big picture? See [Overview: Sheets](#).

1. From the Create menu, choose Sheet.



2. Click the arrows or enter the number of sheets you want to create in the "Number of sheets" box.
3. Under Place, select an option.
4. Click OK.

Tip You can click the New Sheet button to create a new sheet after the current sheet.



{button ,AL('H_CREATING_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_DELETING_SHEETS_STEPS;H_NAMING_A_SHEET_STEPS;H_MOVING_A_SHEET_STEPS;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Creating a sheet

Another way to create sheets

To create a sheet using the shortcut menu, click a sheet tab to make the sheet current, click the sheet tab again to select it, right-click to display the shortcut menu, and then choose Create - Sheet.

How 1-2-3 inserts new sheets

- After current sheet -- Inserts new sheet(s) after the current sheet. If a 3D range is selected, this option inserts sheets after the sheet containing the cell pointer.
- Before current sheet -- Inserts new sheet(s) before the current sheet. If a 3D range is selected, this option inserts sheets before the sheet containing the cell pointer.

Restrictions on number of sheets

A workbook cannot contain more than 256 sheets.

How creating new sheets affects formulas

When you create new sheets, 1-2-3 redefines named ranges and, if necessary, adjusts addresses in formulas.

For example, if you entered the formula +A:A1+B:A1+C:A1 and then created three sheets after sheet A, 1-2-3 adjusts the address so that the formula becomes +A:A1+E:A1+F:A1.

{button ,AL('H_CREATING_A_SHEET_STEPS',1)} [Go to procedure](#)

Naming a sheet

When you name a sheet, the name replaces the sheet letter on the sheet tab, making it easier to find and identify information. The fastest way to name a sheet is to enter the name directly on the sheet tab.

Want the big picture? See [Overview: Sheets](#).



[Show me a QuickDemo](#)

1. Double-click the tab of the sheet you want to name.
2. Enter a name according to the [naming conventions](#).
3. Press ENTER.

{button ,AL('H_NAMING_A_SHEET_DETAILS',1)} [See details](#)

{button ,AL('H_NAMING_A_SHEET_USING_THE_INFOBOX_STEPS;H_HIDING_OR_SHOWING_TABS_STEPS;H_DELETING_A_SHEET_NAME_STEPS',0)} [See related topics](#)

Details: Naming a sheet

Duplicate sheet names

You cannot enter duplicate sheet names in the same workbook.

Naming sheets automatically

If 1-2-3 recognizes the name of the current sheet as part of a SmartFill sequence, you can automatically name sheets that you create before or after the current sheet.

For example, suppose the current sheet is named January. If you click the New Sheet button twice, 1-2-3 places two new sheets after January and automatically names them February and March. If you use Create - Sheet to create two sheets before the one named January, 1-2-3 automatically names them November and December.

The default SmartFill lists for sheet tabs are the same as the ones for filling ranges. You can also create custom SmartFill lists for naming sheets. For more information, see [Overview: Creating custom SmartFill lists](#).

Using sheet names in formulas

When referring to a range in a formula or @function, you can use a sheet name in place of a sheet letter. For example, if the name of sheet B is Tokyo, you can refer to cell B5 in that sheet as Tokyo:B5.

If a sheet has a name, 1-2-3 converts sheet letters in formula references to the corresponding sheet names. For example, if the name of sheet A is Chicago, 1-2-3 converts the formula +A:A5-B:A3 to +Chicago:A5-B:A3.

{button ,AL('H_NAMING_A_SHEET_STEPS',1)} [Go to procedure](#)

Naming a sheet using the InfoBox

You can use the [InfoBox](#) to change the name of the current sheet.

Want the big picture? See [Overview: Sheets](#).

1. From the Sheet menu, choose Sheet Properties.



2. Click the Basics tab in the InfoBox.



3. Enter the sheet name in the "Sheet name" box.
4. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL('H_NAMING_A_SHEET_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_TAB_COLOR_STEPS;H_HIDING_OR_SHOWING_TABS_STEPS;H_NAMING_A_SHEET_STEPS;H_THE_INFOBOX_OVER;',0)} [See related topics](#)

Details: Naming a sheet using the InfoBox

Other ways to name a sheet

You can use the shortcut menu to open the InfoBox for sheets: click the sheet tab to make the sheet current, click the sheet tab again to select it, right-click to display the shortcut menu, and then choose Sheet Properties. You can also enter the sheet name directly on the sheet tab: double-click the sheet tab, enter the new name, and press ENTER.

Duplicate sheet names

You cannot enter duplicate sheet names in the same workbook.

Naming sheets automatically

If 1-2-3 recognizes the name of the current sheet as part of a SmartFill sequence, you can automatically name sheets that you create before or after the current sheet.

For example, suppose the current sheet is named January. If you click the New Sheet button twice, 1-2-3 places two new sheets after January and automatically names them February and March. If you use Create - Sheet to create two sheets before the one named January, 1-2-3 automatically names them November and December.

The default SmartFill lists for sheet tabs are the same as the ones for filling ranges. You can also create custom SmartFill lists for naming sheets. For more information, see [Creating custom SmartFill lists](#).

Using sheet names in formulas

When referring to a range in a formula or @function, you can use a sheet name in place of a sheet letter. For example, if the name of sheet B is Tokyo, you can refer to cell B5 in that sheet as Tokyo:B5.

If a sheet has a name, 1-2-3 converts sheet letters in formula references to the corresponding sheet names. For example, if the name of sheet A is Chicago, 1-2-3 converts the formula +A:A5-B:A3 to +Chicago:A5-B:A3.

{button ,AL('H_NAMING_A_SHEET_USING_THE_INFOBOX_STEPS',1)} [Go to procedure](#)

Deleting a sheet name

You can delete a sheet name so that the original sheet letter reappears on the sheet tab.

1. Double-click the sheet tab.
2. Press DEL or BACKSPACE.
3. Press ENTER.

{button ,AL('H_DELETING_A_SHEET_NAME_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_TAB_COLOR_STEPS;H_DELETING_SHEETS_STEPS;H_HIDING_OR_SHOWING_TAB_STEPS;H_NAMING_A_SHEET_STEPS;H_123_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Deleting a sheet name

How deleting sheet names affects formulas

When you delete a sheet name, 1-2-3 replaces the name with the correct sheet letter in formulas and @functions. For example, if the name of sheet B is Tokyo, and you delete the name, 1-2-3 changes the formula +Tokyo:A5-C:A3 to +B:A5-C:A3.

{button ,AL('H_DELETING_A_SHEET_NAME_STEPS',1)} [Go to procedure](#)

Hiding or showing sheet tabs

You can choose whether you want the sheet tabs to display.

Want the big picture? See [Overview: Sheets](#).

1. From the File menu, choose Workbook Properties.



2. Click the View tab.



3. To hide tabs, deselect "Sheet tabs."
4. To show tabs, select "Sheet tabs."
5. Click OK.

{button ,AL('H_HIDING_OR_SHOWING_TABS_DETAILS',1)} [See details](#)

{button ,AL('H_CHANGING_TAB_COLOR_STEPS;H_NAMING_A_SHEET_STEPS;H_SHEET_NAVIGATION_KEYS_OVER',0)} [See related topics](#)

Details: Hiding or showing sheet tabs**Another way to hide and show tabs**

You can use View - Set View Preferences to hide and show sheet tabs.

Other ways to navigate between sheets

When the sheet tabs are hidden, you can use CTRL+PG UP to go from one sheet to the next and CTRL+PG DN to go to the previous sheet.

{button ,AL('H_HIDING_OR_SHOWING_TABS_STEPS',1)} [Go to procedure](#)

Changing sheet tab color

To organize your sheets visually, you can assign a color to the tab of the current sheet.

1. From the Sheet menu, choose Sheet Properties.



2. Click the Basics tab in the InfoBox.



3. Select a color from the "Tab color" list.
4. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_CHANGING_TAB_COLOR_DETAILS',1)} [See details](#)

{button ,AL('H_HIDING_OR_SHOWING_TABS_STEPS;H_NAMING_A_SHEET_STEPS;',0)} [See related topics](#)

Details: Changing sheet tab color**Other ways to change sheet tab color**

You can also change sheet tab color using the shortcut menu. Select the tab, right-click to display the shortcut menu, choose Sheet properties, and select a color from the "Tab color" list on the Basics tab.

{button ,AL('H_CHANGING_TAB_COLOR_STEPS',1)} [Go to procedure](#)

Overview: Grouping sheets

Grouping sheets is a convenient way to make sheets look the same.

You can group contiguous sheets to apply styles, formats, and other settings of one sheet to other sheets in the group. For example, suppose you want twelve sheets to contain expense figures for each month of the year. Style one sheet and then group the twelve sheets to apply the same styles to the other sheets.

Effects of grouping sheets

1-2-3 applies the following styles, formats, and settings from the specified sheet to all other sheets in the group: number formats, fonts and text attributes, colors, alignments, row height, column width, protection settings, frozen titles, page breaks, and outlines. If you change a setting in any one grouped sheet, all sheets in the group change.

If you add or delete columns or rows in one sheet, 1-2-3 adds or deletes the same columns or rows in all the sheets in the group.

Sheet letters or names on the tabs of grouped sheets appear in italics. Also, when a grouped sheet is the current sheet, "Grp" appears in the status bar.

When not to group sheets

Do not group sheets if you want to keep styles or other settings unique to a particular sheet. When you group sheets, the settings of the specified sheet overwrite any existing ones in the other sheets in the group.

Note Ungrouping does *not* restore the styles, formats, and settings applied to a sheet before grouping.

Do not group sheets if you anticipate deleting columns or rows from one of the grouped sheets. When you delete columns or rows in one sheet in a group, 1-2-3 deletes the columns or rows from all the grouped sheets, and you can lose data.

Tip Ungroup the sheets *before* you delete columns or rows from one sheet in a group.

{button ,AL('H_SHEETS_OVER;H_UNGROUPING_SHEETS_STEPS;H_GROUPING_SHEETS_STEPS',0)} See
related topics

Grouping sheets

You can group contiguous sheets to apply styles, formats, and other settings of one sheet to other sheets in the group.

Want the big picture? See [Overview: Grouping sheets](#).

1. From the Sheet menu, choose Group Sheets.



2. Specify the first sheet in the group in the "First sheet of group" box.
3. Specify the last sheet in the group in the "Last sheet of group" box.
4. In the "Copy styles from this sheet" list, click the sheet whose styles you want to apply to the group.
5. Click OK.

Caution You can lose data if you forget that sheets are grouped. For example, while sheets are grouped, if you delete a column in one sheet, you delete it in all sheets in the group.

{button ,AL(`H_GROUPING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL(`H_SHEETS_OVER;H_UNGROUPING_SHEETS_STEPS;',0)} [See related topics](#)

Details: Grouping sheets

Sheet letters or names on the tabs of grouped sheets appear in italics. Also, when a grouped sheet is the current sheet, "Grp" appears in the status bar.

Effects of grouping sheets

1-2-3 applies the following styles, formats, and settings from the specified sheet to all other sheets in the group: number formats, fonts and text attributes, colors, alignments, row height, column width, protection settings, frozen titles, page breaks, and outlines. If you change a setting in any one grouped sheet, all sheets in the group change.

Do not group sheets if you want to keep styles or other settings unique to a particular sheet. When you group sheets, the settings of the specified sheet overwrite any existing ones in the other sheets in the group.

Ungrouping does *not* restore the styles, formats, and settings applied to a sheet before grouping.

Related SmartIcons

Groups sheets



Ungroups sheets

{button ,AL('H_GROUPING_SHEETS_STEPS',1)} Go to procedure

Ungrouping sheets

You can ungroup sheets when you have finished making changes to the styles and formats of all the sheets at once, or if you want to make a change to a single sheet.

Want the big picture? [See Overview: Grouping sheets.](#)

From the Sheet menu, choose Clear Sheet Group.



{button ,AL('H_UNGROUPING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_GROUPING_SHEETS_STEPS;H_SHEETS_OVER;',0)} [See related topics](#)

Details: Ungrouping sheets

After you ungroup sheets, the "Grp" indicator no longer appears in the status bar.

{button ,AL('H_UNGROUPING_SHEETS_STEPS',1)} [Go to procedure](#)

Freezing columns and rows as titles

You can drag the sheet border to freeze columns, rows, or both so column and row titles remain in view as you scroll through the sheet.

Want the big picture? See [Overview: Sheets](#).



Show me a QuickDemo

- 1. To freeze columns, position the mouse pointer on the border of the sheet frame to the right of the row numbers and below the column letters, and then drag right to the last column you want to freeze.

A \				
A	A	B	C	D
1		Test 4	Test 5	Test 6
2	Joseph Armas	95	82	88
3	Brent Clary	78	78	77
4	Darlene Connors	78	78	85
5	Michael DeGrace	95	91	94

- 2. To freeze rows, position the mouse pointer on the border of the sheet frame below the column letters and to the right of the row numbers, and then drag down to the last row you want to freeze.

A \				
A	A	B	C	D
1		Test 4	Test 5	Test 6
2	Joseph Armas	95	82	88
3	Brent Clary	78	78	77
4	Darlene Connors	78	78	85
5	Michael DeGrace	95	91	94

Note No gridlines appear in the frozen title area.

Details: Freezing columns and rows as titles

Sizing frozen columns or rows

You can size frozen columns and rows in the same way as you size other columns and rows. For more information, see [Sizing columns](#) or [Sizing rows](#).

How sizing the Sheet window affects frozen titles

If you size the Sheet window so that only the frozen title area is visible, 1-2-3 unfreezes the titles. To restore them, increase the size of the Sheet window and freeze the titles again.

Editing frozen titles

To move the cell pointer into the title area, press HOME and then use the arrow keys to move the pointer where you want to enter or edit a title.

Putting graphic objects in the title area

You can put graphic objects, such as script or macro buttons, in the frozen title area. The graphic objects remain visible along with the titles as you scroll through the sheet. This way, you can scroll to data in the sheet and still have the button available to run a script or macro.

Printing frozen titles

The rows and columns that you freeze in a sheet appear as frozen titles only on the screen. To print frozen titles, you specify the columns and rows in the InfoBox for Preview & Page Setup. For more information, see [Printing titles on each page](#).

{button ,AL('H_FREEZING_COLUMNS_AND_ROWS_AS_TITLES_STEPS',1)} [Go to procedure](#)

Freezing titles using the command

You can freeze columns, rows, or both so column and row titles remain in view as you scroll through the sheet.

Want the big picture? See [Overview: Sheets](#).

1. Do one of the following:
 - To freeze columns, position the cell pointer one cell to the right of the columns you want to freeze.
 - To freeze rows, position the cell pointer one cell below the rows you want to freeze.
 - To freeze both columns and rows, position the cell pointer in the cell below the rows and to the right of the columns you want to freeze.

A				
A	A	B	C	D
1		Test 4	Test 5	Test 6
2	Joseph Armas	95	82	88
3	Brent Clary	78	78	77
4	Darlene Connors	78	78	85
5	Michael DeGrace	95	91	94

2. From the View menu, choose Titles.
3. Select one or both options.

Note Selecting both of these options freezes both rows and columns as titles. Deselecting these options clears frozen titles.
4. Click OK.

Note No gridlines appear in the frozen title area.

{button ,AL('H_FREEZING_TITLES_USING_THE_COMMAND_DETAILS',1)} [See details](#)

{button ,AL('H_CLEARING_FROZEN_TITLES_STEPS;H_FREEZING_COLUMNS_AND_ROWS_AS_TITLES_STEP
S;H_PRINT_ADDING_TITLES_ON_EACH_PAGE_STEPS',0)} [See related topics](#)

Details: Freezing titles using the command

How 1-2-3 freezes column and row titles

To freeze both columns and rows, select both options.

- Rows above current cell -- Freezes the rows above the cell pointer.
- Columns left of current cell -- Freezes the columns to the left of the cell pointer.

How sizing the Sheet window affects frozen titles

If you size the Sheet window so that only the frozen title area is visible, 1-2-3 unfreezes the titles. To restore them, increase the size of the Sheet window and freeze the titles again.

Sizing frozen columns or rows

You can size frozen columns and rows in the same way as you size other columns and rows. For more information, see [Sizing columns](#) or [Sizing rows](#).

Editing frozen titles

To move the cell pointer into the title area, press HOME and then use the arrow keys to move the pointer where you want to enter or edit a title.

Putting graphic objects in the title area

You can put graphic objects, such as script or macro buttons, in the frozen title area. The graphic objects remain visible along with the titles as you scroll through the sheet. This way, you can scroll to data in the sheet and still have the button available to run a script or macro.

Printing frozen titles

The rows and columns that you freeze in a sheet appear as frozen titles only on the screen. To print frozen titles, you specify the columns and rows in the InfoBox for Preview & Page Setup. For more information, see [Printing titles on each page](#).

{button ,AL('H_FREEZING_TITLES_USING_THE_COMMAND_STEPS',1)} [Go to procedure](#)

Clearing frozen titles

To release columns or rows so they scroll with the rest of the sheet, you can clear the frozen titles.

1. Move the cell pointer to the sheet whose titles you want to clear.
2. From the View menu, choose Titles.
3. Deselect "Rows above current cell" to clear the row titles.
4. Deselect "Columns left of current cell" to clear the column titles.
5. Click OK.

{button ,AL('H_CLEARING_FROZEN_TITLES_DETAILS',1)} [See details](#)

{button ,AL('H_FREEZING_COLUMNS_AND_ROWS_AS_TITLES_STEPS',0)} [See related topics](#)

Details: Clearing frozen titles**Other ways to clear frozen titles**

To clear frozen column titles, position the mouse pointer on the right border of the last frozen column and drag left to the row numbers.

To clear frozen row titles, position the mouse pointer on the bottom border of the last frozen row and drag up to the column letters.

{button ,AL('H_CLEARING_FROZEN_TITLES_STEPS',1)} [Go to procedure](#)

Overview: Selecting sheet areas

You select a sheet area to indicate where you want to enter data or perform a command.

What you can select

You can select the following sheet areas:

- A cell -- The basic unit of a sheet formed by the intersection of a column and a row. Select a cell to enter or edit text, numbers, and formulas.



- A range -- A block of cells that can be as small as a single cell, or as large as all the sheets in a workbook. A range is represented as the addresses of its top left and bottom right cells. Select a range to perform actions on a contiguous group of cells; for example, to copy, move, and style the cells, or to create a version.



- A 3D range -- A range that spans two or more contiguous sheets and includes the same cells in those sheets.
- A collection -- A group of non-contiguous ranges, selected at the same time. The ranges can touch, not touch, or overlap.



- A column or row -- You can move, copy, insert, and delete entire columns or rows, or create an outline by demoting columns or rows.

	A	B	C
1			
2			
3			
4			
5			

- A sheet -- A spreadsheet "page," consisting of a grid of 256 columns and 65,536 rows, in the workbook. Clicking the sheet letter selects all the cells in the sheet. Clicking the sheet tab selects the sheet as an object. For example, if you want to delete the contents of a sheet and leave the sheet blank, select the sheet letter and press DEL. If you want to delete a sheet, click the sheet tab and choose Sheet - Delete Sheet.



How to tell what's selected

Selection indicator

The selection indicator displays the address or name of the current selection.



"Properties for" box

The "Properties for" box at the top of the InfoBox tells you whether you are changing the properties for the currently selected range, sheet, or graphic object.



Context menu

The context menu, located between Create and Sheet on the main menu, changes depending on what is selected. For example, if you select a drawing, you see Drawing in the menu, but if you select a range, that menu item changes to Range.



```
{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_QUICK_SUMMARY_OF_SELECTION
_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SEL
ECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGL
E_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_QUICK
_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_OBJECTS_OVER',0)} See related topics
```

Selecting sheet areas

The table below summarizes the techniques for selecting sheet areas.

To select	Do this
Cell	Mouse: Click the cell. Keyboard: Use the pointer-movement keys to move the cell pointer to the cell.
Range	Mouse: Drag across the range. Keyboard: Press SHIFT and use the pointer-movement keys to highlight the range.
3D range	Mouse: Select the range in the first sheet, then SHIFT+click the tab of the last sheet in the range. Keyboard: Select the range in the first sheet, then press CTRL+SHIFT+PGUP to extend the range to subsequent sheets.
Collection	Select the first range, then hold down CTRL and select the other ranges.
Column or row	Click the column letter or row number.
Sheet	To select the sheet, click the sheet tab once to make the sheet current, then click the tab again.
All cells in a sheet	Click the sheet letter in the sheet frame (not the sheet tab).

{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;H_SELECTION_KEYS_OVER',0)} [See related topics](#)

Selecting sheets

You can select the sheet tab to change the properties of the sheet (the sheet defaults), or you can select all the cells in the sheet.

To select the sheet tab, click the tab once to make the sheet current, then click the tab again.

To select all the cells in a sheet, click the sheet letter.



Tip Select multiple sheets to change the properties of several sheets at once. To select several sheets, select the first sheet tab, then SHIFT+click or CTRL+click the other sheet tabs.

{button ,AL('H_SELECTING_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEET_AREAS_OVER;H_123_COPYING_A_SHEET_STEPS;H_123_S98_MOVING_A_SHEET_STEPS',0)} [See related topics](#)

Details: Selecting sheets

To select a sheet, you must use the mouse.

Making changes to entire sheets

Use Sheet - Sheet Properties to make changes to one or more entire sheets. See [Overview: Sheet defaults](#) for more information.

Canceling a selection

To cancel a selection, press ESC or click anywhere in the sheet.

Copying and moving sheets

You do not need to select a sheet to copy or move it. For more information, see [Copying a sheet](#) or [Moving a sheet](#).

{button ,AL('H_SELECTING_SHEETS_STEPS',1)} [Go to procedure](#)

Selecting a single cell

To enter data in a cell or perform a command on a cell, you must select it.

To select a single cell, click the cell.

Tip If the cell you want to select isn't visible, use F5 (GOTO), or the scroll bars to find it.

{button ,AL('H_SELECTING_A_SINGLE_CELL_DETAILS',1)} [See details](#)

{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;',0)} [See related topics](#)

Details: Selecting a single cell**Other ways to select a single cell**

- Use the pointer-movement keys to move the cell pointer to the cell.
- To select a cell and display the shortcut menu, right-click the cell.

{button ,AL('H_SELECTING_A_SINGLE_CELL_STEPS',1)} Go to procedure

Selecting a range

To perform a command on a range, you must select the range.

1. Move the mouse pointer to a corner of the range.
2. Hold down the left mouse button and drag across the cells you want to select.
3. Release the mouse button when the range is highlighted.

Tip You can ALT+double-click any cell in a range to select the entire range, if the range borders a blank column or row.

{button ,AL('H_SELECTING_A_RANGE_DETAILS',1)} [See details](#)

{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_SELECTION_KEYS_OVER',0)} [See related topics](#)

Details: Selecting a range

Other ways to select a range

- With the cell pointer in one corner of the range, SHIFT+click the diagonally opposite corner.
- With the cell pointer in one corner of the range, hold down SHIFT and use the pointer-movement keys to highlight the range.
- Press F4 to anchor the cell pointer, then use the pointer-movement keys to highlight the range.

Reshaping a selection

To extend or shrink a range to a particular cell, SHIFT+click that cell.

Canceling a selection

To cancel a selection, press ESC or click anywhere in the sheet.

Selecting a range while using the InfoBox or a dialog box

While the InfoBox is displayed, you can select any range whose properties you want to change. In some dialog boxes and InfoBox tabs, you can select a range by using the range selector.



{button ,AL('H_SELECTING_A_RANGE_STEPS',1)} Go to procedure

{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_SELECTION_KEYS_OVER',0)} See related topics

Selecting columns or rows

Selecting a column or row selects all the cells in that column or row.

To select a column or row, click the column letter or row number.

A			
A	A	B	C
1			
2			
3			
4			
5			

```
{button ,AL('H_SELECTING_COLUMNS_OR_ROWS_DETAILS',1)} See details  
{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTIN  
G_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECT  
ING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_S  
TEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;',0)} See related topics
```

Details: Selecting columns or rows

To select rows or columns, you must use the mouse.

Selecting multiple columns or rows

To extend the selection to consecutive columns or rows, SHIFT+click the letter of the last column or the number of the last row in the range. You can also drag across column letters or row numbers.

To add non-consecutive columns or rows to your selection, CTRL+click the letter of each column or the number of each row.

Canceling a selection

To cancel a selection, press ESC or click anywhere in the sheet.

{button ,AL('H_SELECTING_COLUMNS_OR_ROWS_STEPS',1)} [Go to procedure](#)

Selecting a collection of ranges

A collection can include single cells, ranges, 3D ranges, and entire columns, rows, and sheets.

1. Select the first range in the collection.
2. Hold down CTRL while selecting the ranges you want to add to the collection.



3. (Optional) To add a range in another sheet, CTRL+click the sheet tab to display the sheet, and hold down CTRL while selecting the range.

Tip To remove a range from a collection, CTRL+click the range. To re-shape an individual range in a collection, hold down CTRL and drag within that range.

{button ,AL('H_SELECTING_A_COLLECTION_OF_RANGES_DETAILS',1)} [See details](#)

{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;',0)} [See related topics](#)

Details: Selecting a collection of ranges

Adding a 3D range to a collection

Hold down CTRL while selecting the range in the first sheet of the 3D range and CTRL+SHIFT+click the sheet tab of the last sheet you want to include in the 3D range.

Canceling a selection

To cancel a selection, press ESC or click anywhere in the sheet.

Which commands apply to collections?

Not all commands that apply to ranges apply to collections. For example, you can't name or copy a collection. Most styling commands you perform in the InfoBox do apply to collections, with the exception of named style commands.

If a command doesn't apply to a collection, 1-2-3 will either perform the command on the current range in the collection (the range containing the cell pointer) or display a message.

{button ,AL('H_SELECTING_A_COLLECTION_OF_RANGES_STEPS',1)} Go to procedure

Selecting a range across sheets

To perform a command on a 3D range, you must first select the 2D range.

1. Select the range in the first sheet of the 3D range.
2. SHIFT+click the sheet tab of the last sheet you want to include in the range.

Tip To cancel a selection, press ESC or click anywhere in the sheet.

{button ,AL('H_SELECTING_A_RANGE_ACROSS_SHEETS_DETAILS',1)} [See details](#)

{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS;H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;',0)} [See related topics](#)

Details: Selecting a range across sheets**Selecting a range across sheets with the keyboard**

Select the range in the first sheet, then press CTRL+SHIFT+PG UP or CTRL+SHIFT+PG DN to extend your selection to the next sheet in the 3D range.

Checking your selection

You can use the selection indicator to check the address of your 3D selection.

{button ,AL('H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS',1)} [Go to procedure](#)

Selecting a range from a dialog box

You can select a range from within some dialog boxes and InfoBox tabs by using the range selector.

1. Click the range selector to hide the dialog box or InfoBox.



The pointer changes to the range selector pointer.



2. Select the range.
3. When you release the mouse button, the dialog box or InfoBox reappears, with the range address entered.

Tip You don't have to hide the dialog box or InfoBox to select a range. If the range is visible, click in the "Range" box and use the mouse to select the range.

{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_DETAILS',1)} [See details](#)

{button ,AL('H_QUICK_SUMMARY_OF_SELECTION_TECHNIQUES_FOR_SHEET_AREAS_OVER;H_SELECTING_A_COLLECTION_OF_RANGES_STEPS;H_SELECTING_A_RANGE_ACROSS_SHEETS_STEPS;H_SELECTING_A_RANGE_STEPS;H_SELECTING_A_SINGLE_CELL_STEPS;H_SELECTING_COLUMNS_OR_ROWS_STEPS;H_SELECTING_SHEETS_STEPS;H_SELECTING_SHEET_AREAS_OVER;',0)} [See related topics](#)

Details: Selecting a range from a dialog box

Specifying a range using the keyboard

In the dialog box or InfoBox, click in the "Range" box, then use the pointer movement keys to move the cell pointer to a corner of the range. Press . (period) to anchor the cell pointer, then use the pointer movement keys to select the range. Press ENTER to complete your selection.

Note This method is not available in all dialog box or InfoBox situations. 1-2-3 must be in Point mode.

Specifying a range name using the navigator

In the dialog box or InfoBox, click in the "Range" box, then click the navigator and select from the list of named ranges in the current sheet.



{button ,AL('H_SELECTING_A_RANGE_FROM_A_DIALOG_BOX_STEPS',1)} [Go to procedure](#)

{button ,AL('H_123_POINT_MODE_OVER',0)} [See related topics](#)

Overview: Sizing columns and rows

You can change column width and row height by dragging the column or row border, or by using the [InfoBox](#).

Changing column width

You can change column width to fit a particular number of characters, or you can set the width to fit the widest entry in the column.

When a value is too wide to fit in a cell, it appears in [Scientific format](#) or as a line of *** (asterisks).

D	A	B
1	Population	*****
2		

To display the value, widen the column.

D	A	B
1	Population	3,675,900
2		

Changing row height

1-2-3 automatically adjusts row height to match the height of the tallest font in the row, or to fit text that you wrap in a cell.

You can change row height to a particular number of [points](#) or reset it to fit the tallest font in the row.

```
{button ,AL('H_FITTING_THE_TALLEST_ROW_ENTRY_STEPS;H_FITTING_THE_WIDEST_COLUMN_ENTRY_STEPS;H_SIZING_COLUMNS_STEPS;H_SIZING_COLUMNS_USING_THE_INFOBOX_STEPS;H_SIZING_ROWS_STEPS;H_SIZING_ROWS_USING_THE_INFOBOX_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;','0')}
```

[See related topics](#)

Sizing columns

You can size a column by dragging the column border.

Want the big picture? See [Overview: Sizing columns and rows](#).



[Show me a QuickDemo](#)

1. Position the mouse pointer on the column border to the right of the column letter.



2. Drag the border right or left until the column is the width you want.
As you drag, an indicator appears displaying the column width in characters.
3. Release the mouse button.

{button ,AL('H_SIZING_COLUMNS_DETAILS',1)} [See details](#)

{button ,AL('H_SIZING_COLUMNS_USING_THE_INFOBOX_STEPS;H_SIZING_ROWS_STEPS;H_SIZING_ROWS_USING_THE_INFOBOX_STEPS;H_FITTING_THE_WIDEST_COLUMN_ENTRY_STEPS;H_123_COPYING_COLUMN_WIDTHS_AND_ROW_HEIGHTS_STEPS',0)} [See related topics](#)

Details: Sizing columns

Setting the column width in characters

1-2-3 sizes columns in whole-character increments from 0 (zero) to 240 characters. Setting column width to 0 hides the column. For more information about displaying hidden columns, see [Displaying hidden columns](#).

Sizing several columns at once

To size more than one column at once, [select](#) the columns and drag the border of one of them.

You can also select several entire columns and double-click the right border of one of them; each selected column adjusts to fit its widest entry.

How changing column width affects values

When a column is too narrow to display an entire [value](#) as formatted, the value appears in [Scientific format](#) or as a line of *** (asterisks). To display the value, you must widen the column to the width of the formatted value.

How changing column width affects labels

If a [label](#) is longer than the cell it occupies and the cells to the right are blank, 1-2-3 displays the label across the blank cells. If the cells to the right contain data, 1-2-3 displays only the part of the label that fits in the cell where it is entered.

To see the complete label, you must widen the column or wrap the text in the cell. For more information, see [Wrapping data in a cell](#).

{button ,AL('H_SIZING_COLUMNS_STEPS',1)} [Go to procedure](#)

Sizing rows

You can size a row by dragging the bottom row border.

Want the big picture? See [Overview: Sizing columns and rows](#).



[Show me a QuickDemo](#)

1. Position the mouse pointer on the bottom border of the row.



2. Drag the border up or down until the row is the height you want.
As you drag, an indicator appears displaying row height in [points](#).
3. Release the mouse button.

{button ,AL('H_SIZING_ROWS_DETAILS',1)} [See details](#)

{button ,AL('H_SIZING_COLUMNS_STEPS;H_SIZING_COLUMNS_USING_THE_INFOBOX_STEPS;H_SIZING_ROWS_USING_THE_INFOBOX_STEPS;H_FITTING_THE_TALLEST_ROW_ENTRY_STEPS;H_123_COPYING_COLUMN_WIDTHS_AND_ROW_HEIGHTS_STEPS',0)} [See related topics](#)

Details: Sizing rows

Setting the row height in points

1-2-3 sizes rows in points from 0 (zero) to 255 points. Setting row height to 0 hides the row. For more information about displaying hidden rows, see Displaying hidden rows.

When you set the row height to a specific number of points, it no longer adjusts automatically to match the largest font in the row. For more information about fitting the largest font in the row, see Fitting the tallest row entry.

How changing fonts affects row height

If you change data in a selected range to a smaller font and the rows in the range do not contain any data in a larger font, the row height decreases according to the new font height. Row height, however, does not decrease to less than the default font size set for the sheet.

When you change row height, the heights of fonts in the row do not change.

Sizing several rows at once

To size more than one row at once, select the entire rows you want to size and drag the border of one of them.

You can also select several entire rows and double-click the bottom border of one of them; each row adjusts to fit its tallest entry.

Sizing rows to fit their tallest entry adjusts each row in the selected range to fit the largest font in the row or to fit the alignment orientation selected on the Alignment tab in the InfoBox.

{button ,AL('H_SIZING_ROWS_STEPS',1)} Go to procedure

Sizing columns using the InfoBox

You can use the InfoBox to size columns to a particular width in characters, to the default width, or to fit the widest entry.

Want the big picture? See [Overview: Sizing columns and rows](#).

1. [Select](#) at least one cell in each column you want to size.
2. From the Range menu, choose Range Properties.



3. Click the Basics tab in the InfoBox.



4. To set the width in characters, select "Width" and click the arrows or enter a number in the "Width" box.
5. To reset the column to the default width, select "Default width."
6. To size the column to its widest entry, click the icon shown below.



7. (Optional) [Move, collapse, or close](#) the InfoBox.

{button ,AL(`H_SIZING_COLUMNS_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

{button ,AL(`H_SIZING_COLUMNS_STEPS;H_SIZING_ROWS_STEPS;H_SIZING_ROWS_USING_THE_INFOBOX_STEPS;H_FITTING_THE_WIDEST_COLUMN_ENTRY_STEPS;','0)} [See related topics](#)

Details: Sizing columns using the InfoBox

Setting column width

The Basics tab in the InfoBox has options for setting column width.

- Width -- Sizes columns in whole characters from 0 (zero) to 240 characters. Setting column width to 0 hides the column. For more information about displaying hidden columns, see [Displaying hidden columns](#).
- Default width -- Sets columns to the default width. 1-2-3 adjusts columns to the default width set with Sheet - Sheet Properties. The initial default width is 9 characters.

How changing column width affects values

When a column is too narrow to display an entire value as formatted, the value appears in Scientific format or as a line of *** (asterisks). To display the value, you must widen the column to the width of the formatted value.

How changing column width affects labels

If a label is longer than the cell it occupies and the cells to the right are blank, 1-2-3 displays the label across the blank cells. If the cells to the right contain data, 1-2-3 displays only the part of the label that fits in the cell where it is entered.

To see the complete label, you must widen the column or wrap the text in the cell. For more information, see [Wrapping data in a cell](#).

Sizing to a maximum of 240 characters

When you size a column to fit the widest entry, 1-2-3 widens the column to a maximum of 240 characters. If your widest entry exceeds this limit, 1-2-3 may display only the first 240 characters. No data is lost. When you click the cell containing the widest entry, all the data appears in the contents box.

{button ,AL('H_SIZING_COLUMNS_USING_THE_INFOBOX_STEPS',1)} [Go to procedure](#)

Sizing rows using the InfoBox

You can use the InfoBox to size rows to a particular number of points or to fit the tallest font in the row.

Want the big picture? See [Overview: Sizing columns and rows](#).

1. Select at least one cell in each row you want to size.
2. From the Range menu, choose Range Properties.



3. Click the Basics tab in the InfoBox.



4. To set the height in points, select "Height" and click the arrows or enter a number in the "Height" box.
5. To size the row to its tallest entry, select "Fit largest font."
6. (Optional) Move, collapse, or close the InfoBox.

{button ,AL('H_SIZING_ROWS_USING_THE_INFOBOX_DETAILS',1)} [See details](#)

{button ,AL('H_SIZING_COLUMNS_STEPS;H_SIZING_COLUMNS_USING_THE_INFOBOX_STEPS;H_SIZING_ROWS_STEPS;H_FITTING_THE_TALLEST_ROW_ENTRY_STEPS;',0)} [See related topics](#)

Details: Sizing rows using the InfoBox

Setting row height

The Basics tab in the InfoBox has options for setting the row height.

- Height -- Sets row height in points from 0 (zero) to 255 points. When you set the row height to a specific number of points, it no longer adjusts automatically to match the largest font in the row.
- Fit largest font -- Adjusts each row in the selected range to fit the largest font in the row or to fit the alignment orientation selected in the InfoBox Alignment tab.

How changing fonts affects row height

If you change data in a selected range to a smaller font and the rows in the range do not contain any data in a larger font, the row height decreases according to the new font height. Row height, however, does not decrease to less than the default font size set for the sheet.

When you change row height, the heights of fonts in the row do not change.

Hiding and displaying rows

Setting row height to 0 hides the row. For information about displaying hidden rows, see [Displaying hidden rows](#).

{button ,AL('H_SIZING_ROWS_USING_THE_INFOBOX_STEPS',1)} [Go to procedure](#)

Fitting the widest column entry

You can use the mouse to change column width to fit the widest entry in the column.

Want the big picture? See [Overview: Sizing columns and rows](#).



[Show me a QuickDemo](#)

1. Position the mouse pointer on the column border to the right of the column letter.

A	A	B	C
1			

2. Double-click the border.

Tip If a column contains both text and numbers and you want to size it to fit the widest numerical entry, SHIFT+double-click the column border. You can also click the column letter to select the column, then right-click and choose Fit Widest Number from the shortcut menu.

{button ,AL('H_FITTING_THE_WIDEST_COLUMN_ENTRY_DETAILS',1)} [See details](#)

{button ,AL('H_FITTING_THE_TALLEST_ROW_ENTRY_STEPS;H_SIZING_COLUMNS_STEPS;H_SIZING_ROWS_STEPS;H_WRAPPING_DATA_IN_A_CELL_STEPS;',0)} [See related topics](#)

Details: Fitting the widest column entry

Another way to fit the widest column entry

You can click the column letter to select the entire column, then right-click and choose Fit Widest Entry from the shortcut menu.

Sizing to a maximum of 240 characters

When you size a column to fit the widest entry, 1-2-3 widens the column to a maximum of 240 characters. If your widest entry exceeds this limit, 1-2-3 may display only the first 240 characters. No data is lost. When you click the cell containing the widest entry, all the data appears in the contents box.

Sizing several columns at once

To fit the widest entry in more than one column at once, select the columns you want to size and double-click the right border of one of them. Each selected column adjusts to fit its widest entry.

Related SmartIcons



Sizes columns to fit the widest entries in the current selection

{button ,AL('H_FITTING_THE_WIDEST_COLUMN_ENTRY_STEPS',1)} [Go to procedure](#)

Fitting the tallest row entry

You can use the mouse to change row height to fit the tallest font in the row.

Want the big picture? See [Overview: Sizing columns and rows](#).

1. Position the mouse pointer on the bottom border of the row.



2. Double-click the border.

{button ,AL('H_FITTING_THE_TALLEST_ROW_ENTRY_DETAILS',1)} [See details](#)

{button ,AL('H_SIZING_ROWS_USING_THE_INFOBOX_STEPS;H_FITTING_THE_WIDEST_COLUMN_ENTRY_STEPS;H_SIZING_COLUMNS_STEPS;H_SIZING_ROWS_STEPS;',0)} [See related topics](#)

Details: Fitting the tallest row entry**Another way to fit the tallest row entry**

You can click the row number to select the entire row, then right-click and choose Fit Largest Font from the shortcut menu.

Sizing several rows at once

To fit the tallest entry in more than one row at once, select the entire rows you want to size and double-click the bottom border of one of them. Each selected row adjusts to fit its tallest entry.

Sizing rows to fit their tallest entry adjusts each row in the selected range to fit the largest font in the row or to fit the alignment orientation specified on the Alignment tab in the InfoBox.

{button ,AL('H_FITTING_THE_TALLEST_ROW_ENTRY_STEPS',1)} [Go to procedure](#)

Overview: Working with Internet connections

Using 1-2-3, you can open any workbook from an FTP (File Transfer Protocol) or a Web (World Wide Web) server via the Internet. You can also save a workbook to an FTP server and publish a range on a Web page.

Getting setup

Before you can open or save a workbook on the Internet:

- Your computer and the server must both be connected to the Internet.
- Your computer must have a WinSock-compatible TCP/IP stack installed.
- The server must meet one of the following criteria:
 - The server must be a public Web server.
 - The server must support anonymous FTP.
 - The server must support FTP and you must have an account with permission to access files.

Opening a workbook

When you open a workbook that resides on the Internet, 1-2-3 copies the workbook to your workstation where you can make changes. To write the changes to the FTP server, you must save the modified workbook to the Internet. You must also have Write permission to an FTP server to save changes.

You can maintain a list of addresses to FTP servers that you use often. You can also add, edit, or delete FTP connection information.

Accessing a server

Access to FTP servers can be anonymous or require a user ID and password. You can access an FTP server directly or via a firewall (proxy server).

Most companies use a proxy server as an intermediary between their local area networks and the Internet to prevent unauthorized users from accessing the network. If you are using an Internet service provider, you typically will not use a proxy.

Connecting to a server automatically

If you regularly connect to the same server, you can set Internet options so that you automatically connect to that server when opening or saving a file on the Internet. You can also capture a transaction record of the date, time, and full path from which a file was copied when you open a workbook.

Tracking Internet messages

For each Internet connection, a log is kept of the messages sent to and from the Internet server. The log file is called LTSNET.LOG and is stored in the operating system's temporary directory. 1-2-3 maintains only a log of the most recent connection. Each time you connect to a server, the previous file is overwritten.

```
{button ,AL('H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_ADDING_
EDITING_OR_SETTING_A_DEFAULT_PROXY_STEPS;H_123_CONFIGURING_INTERNET_OPTIONS_STEPS
;H_123_CONNECTING_TO_LOTUS_CUSTOMER_SUPPORT_STEPS;H_123_CONNECTING_TO_THE_LOTUS
_FTP_SITE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_HOME_PAGE_STEPS;H_123_CONNECTING_T
O_THE_LOTUS_REF_LIB_STEPS;H_123_EDITING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS
_STEPS;H_123_OPENING_A_DOCUMENT_FROM_A_WEB_SERVER_ON_THE_INTERNET_STEPS;H_123_O
PENING_A_DOCUMENT_FROM_AN_FTP_SERVER_ON_THE_INTERNET_STEPS;H_123_PUBLISHING_A_R
ANGE_STEPS;H_123_SAVING_A_DOCUMENT_TO_AN_FTP_SERVER_ON_THE_INTERNET_STEPS;H_123_
SEARCHING_INTERNET_STEPS;H_123_WEB_BUTTON_STEPS;H_123_SPECIFYING_PROXY_INFORMATIO
N_STEPS;',0)} See related topics
```

Connecting to the Lotus home page

1. Choose Help - Lotus Internet Support.
2. Choose Lotus Home Page.



{button ,AL(`;H_123_CONNECTING_TO_LOTUS_CUSTOMER_SUPPORT_STEPS;H_123_CONNECTING_TO_TH
E_LOTUS_FTP_SITE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_REF_LIB_STEPS',0)} [See related
topics](#)

Connecting to Lotus Customer Support

1. Choose Help - Lotus Internet Support.
2. Choose Lotus Customer Support.



{button ,AL(`;H_123_CONNECTING_TO_THE_LOTUS_FTP_SITE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_HOME_PAGE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_REF_LIB_STEPS',0)} [See related topics](#)

Connecting to the Lotus FTP site

To open a document from or save a document to the Lotus FTP server.

1. Choose Help - Lotus Internet Support.
2. Choose Lotus FTP Site.



{button ,AL(`;H_123_CONNECTING_TO_LOTUS_CUSTOMER_SUPPORT_STEPS;H_123_CONNECTING_TO_THE_LOTUS_HOME_PAGE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_REF_LIB_STEPS',0)} See related topics

Connecting to the Lotus SmartSuite Reference Library page

To connect to the Reference Library home page, click the SmartSuite Reference Library icon in the set of Internet SmartIcons.



Note If you can't see the set of Internet SmartIcons, choose View - Show Internet Tools.

{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_CONNECTING_TO_LOTUS_CUSTOMER_SUPPORT_STEPS;H_123_CONNECTING_TO_THE_LOTUS_FTP_SITE_STEPS;H_123_CONNECTING_TO_THE_LOTUS_HOME_PAGE_STEPS',0)} [See related topics](#)

Opening a workbook from a Web server on the Internet

1. From the File menu, choose Open, and then click Internet.



2. Select "Web" as the server type.

Tip If you connect to the Internet using a proxy, click Setup to specify proxy information.

3. Specify the Web page address in the "Address" box.
4. Click Open.

{button ,AL('H_123_OPENING_A_DOCUMENT_FROM_A_WEB_SERVER_ON_THE_INTERNET_DETAILS',1)}
[See details](#)

{button ,AL('H_123_OPENING_A_DOCUMENT_FROM_AN_FTP_SERVER_ON_THE_INTERNET_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_SPECIFYING_PROXY_INFORMATION_STEPS;',0)} [See related topics](#)

Details: Opening a workbook from a Web server on the Internet**Server type**

Enables you to select either "Web" (World Wide Web) or "FTP" (File Transfer Protocol).

Address

Displays a list of previously used Web page addresses.

{button ,AL('H_123_OPENING_A_DOCUMENT_FROM_A_WEB_SERVER_ON_THE_INTERNET_STEPS',1)} Go to
procedure

Opening a workbook from an FTP server on the Internet

To open a document from an FTP server, you must first connect to the server.

1. From the File menu, choose Open, and then click Internet.



2. Select "FTP" as the server type.
3. Select an FTP server in the "FTP servers" box.

Tip If you want to connect to a server which is not on the list, click Setup to display the FTP Hosts tab of the Internet Setup dialog box, where you can define additional servers.

Note If you are specifying setup information for the first time, 1-2-3 displays the Internet Setup Assistant to help you get started.

4. To automatically connect to this server each time you open or save a file to the Internet, select "Auto-connect to this server next time."
5. Click Connect.
1-2-3 connects to the server you specified. You can stop the connection process by clicking the Stop button. When the connection is successful, the Open from Internet dialog box expands to display the server's directory tree, so you can select a file to open.
6. Specify the name of the file you want to open in the "File name" box.
7. Specify the type of file you want to open in the "Files of type" box.
8. Click Open.

{button ,AL('H_123_OPENING_A_DOCUMENT_FROM_AN_FTP_SERVER_ON_THE_INTERNET_DETAILS',1)}
See details

{button ,AL(';H_123_OPENING_A_DOCUMENT_FROM_A_WEB_SERVER_ON_THE_INTERNET_STEPS;H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} See related topics

Details: Opening a workbook from an FTP server on the Internet

Server type

Enables you to select either "Web" (World Wide Web) or "FTP" (File Transfer Protocol).

FTP servers

Lists the FTP servers you have defined connection information for.

Auto-connect to this server next time

If you select this option, 1-2-3 automatically connects to this server whenever you open or save a file to the Internet. This server is the default server, and "(Default)" displays next to its name in the "FTP servers" box. You can only select one default server at a time.

Look in

Displays the current directory on the server. This option does not appear unless you have specified connection setup information.

Current Path

Displays the selected path on the FTP server, including all lower level directories. This option does not appear unless you have specified connection setup information. The box below the current path displays the available subdirectories and files in the current directory. This option does not appear unless you have specified connection setup information.

File name

Specifies the name of the file you want to open. This option does not appear unless you have specified connection setup information.

Files of Type

Lists the available file types. Select a file type to see that type of file in the directories and files box. This option does not appear unless you have specified connection setup information.

{button ,AL('H_123_OPENING_A_DOCUMENT_FROM_AN_FTP_SERVER_ON_THE_INTERNET_STEPS',1)} Go
to procedure

Saving a workbook to an FTP server on the Internet

To save a document to an FTP server, you must first connect to the server. Then you can specify the directory to save the file in, and the file name. If this is the first time you have connected to the Internet, click Setup to display the Internet Setup Assistant. The assistant will walk you through the process of specifying information about the FTP server to which you want to connect and provide other information needed to connect to the Internet.

1. From the File menu, choose Save As, and then click Internet.
2. Select an FTP server to connect to from the "FTP servers" box.

Tip If you want to connect to a server which is not on the list, click Setup to display the FTP Hosts tab of the Internet Setup dialog box, where you can define additional servers.

Note If you are specifying setup information for the first time, 1-2-3 displays the Internet Setup Assistant to help you get started.

3. To automatically connect to this server each time you open or save a file to the Internet, select "Auto-connect to this server next time."
4. Click Connect.
1-2-3 connects to the server you specified. You can stop the connection process by clicking the Stop button. When the connection is successful, the Save to Internet dialog box expands to display the server's directory tree, so you can select a directory and file name.
5. Specify the directory you want to save the file to in the "Save in" box.
6. Specify the name of the file you want to save in the "File name" box.
7. Specify the format you want to use to save the file in the "Save as type" box.
8. Click Save.

{button ,AL('H_123_SAVING_A_DOCUMENT_TO_AN_FTP_SERVER_ON_THE_INTERNET_DETAILS',1)} See details

{button ,AL(';H_123_PUBLISHING_A_RANGE_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_APPS_ODYSSEY_AND_123_STEPS;',0)} See related topics

Details: Saving a workbook to an FTP server on the Internet

FTP servers

Lists the FTP servers you have defined connection information for.

Auto-connect to this server next time

If you select this option, 1-2-3 automatically connects to this server whenever you open or save a file to the Internet. This server is the default server, and "(Default)" displays next to its name in the "FTP servers" box. You can only select one default server at a time.

Save in

Displays the current directory on the server.

Current Path

Displays the selected path on the FTP server, including all lower level directories. This option does not appear unless you have specified connection setup information.

The box below the current path displays the available subdirectories and files in the current directory. This option does not appear unless you have specified connection setup information.

File name

Specifies the name of the file you want to save.

Files of type

Lists the available file types. Select the format you want to use to save the file.

{button ,AL('H_123_SAVING_A_DOCUMENT_TO_AN_FTP_SERVER_ON_THE_INTERNET_STEPS',1)} Go to
procedure

Internet Setup: FTP Hosts panel

You can add, edit, or delete FTP connection information.

Choose a task

[Adding connection information for FTP hosts](#)

[Deleting connection information for FTP hosts](#)

[Editing connection information for FTP hosts](#)

Adding connection information for FTP hosts

Before you can connect to an FTP host, you must add the connection information to access it.

1. From the File menu, choose Internet, and then choose Setup.
2. Click the FTP Hosts tab.
3. Enter a description name for the host in the "Host description" box.
4. Enter the address, port, and other connection information.
5. Click Save.
6. To specify information for additional hosts, click New and repeat steps 3-5.
7. Click OK.

{button ,AL('H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_DETAILS',1)} [See details](#)
{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_EDITING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_DELETING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_SPECIFYING_PROXY_INFORMATION_STEPS;',0)} [See related topics](#)

Details: Adding connection information for FTP hosts

Host description

Type a name to identify the FTP server. This can be any name you want.

Host address

Type the address of the FTP server on the Internet. Typically, the address is specified in three parts, separated by periods, with the first part of the address being 'ftp'. For example, ftp.lotus.com.

Port

Type the port the server uses to communicate. In most cases, you can accept the default option.

Initial directory

FTP servers have a directory structure much like that of your computer. Specify the starting directory you want to use when you connect to the server.

User ID

Type the User ID which was assigned to you to access the FTP server. User ID's are typically case sensitive, so make sure to use correct capitalization.

Anonymous FTP

If you do not have a specific user ID to access the FTP server, you can probably access the server using anonymous FTP. The anonymous user name typically can read files from certain directories on the server, and usually cannot write files to the server.

If you select this option, the user ID is automatically changed to "anonymous."

Password

Type the password which was assigned to you to access the server. Passwords are typically case sensitive, so make sure to use correct capitalization. If you selected "Anonymous FTP," you should use your e-mail address as the password, for example mailuser@company.com.

Save Password

If you want to save the password information with the information about this server, select Save Password. The password will be stored from session to session; however, this means that anyone using your computer can access the ftp site. If you want the password remembered for this session of 1-2-3 only, deselect this option.

Use Proxy

Most companies use a proxy server as an intermediary between their local area networks and the Internet to prevent unauthorized users from accessing the network. A proxy is sometimes known as a firewall. If you are using an Internet service provider, you typically will not use a proxy.

If you use a proxy to access the Internet, select this option.

Passive

If the FTP server you are connecting to is a passive server, it does not provide any information about its directory structure to the computer connected to it, and does not provide any confirmation that commands issued to it are correct. If this is a passive server, select this option.

{button ,AL('H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS',1)} Go to
procedure

Deleting connection information for FTP hosts

1. From the File menu, choose Internet, and then choose Setup.
2. Click the FTP Hosts tab.
3. Choose an Internet host from the "Host description" box.
4. Click Delete.
5. Click Yes to confirm the message.
6. Click OK.

{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_EDITING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_SPECIFYING_PROXY_INFORMATION_STEPS;','0)} [See related topics](#)

Editing connection information for FTP hosts

1. From the File menu, choose Internet, and then choose Setup.
2. Click the FTP Hosts tab.
3. Choose a host from the "Host description" box.
4. Make any changes to the connection information.
5. Click Save.
6. Click OK.

{button ,AL('H_123_EDITING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_DELETING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;H_123_SPECIFYING_PROXY_INFORMATION_STEPS;',0)} [See related topics](#)

Details: Editing connection information for FTP hosts

Host description

Type a name to identify the FTP server. This can be any name you want.

Host address

Type the address of the FTP server on the Internet. Typically, the address is specified in three parts, separated by periods, with the first part of the address being 'ftp'. For example, ftp.lotus.com.

Port

Type the port the server uses to communicate. In most cases, you can accept the default option.

Initial directory

FTP servers have a directory structure much like that of your computer. Specify the starting directory you want to use when you connect to the server.

User ID

Type the User ID which was assigned to you to access the FTP server. User ID's are typically case sensitive, so make sure to use correct capitalization.

Anonymous FTP

If you do not have a specific user ID to access the FTP server, you can probably access the server using anonymous FTP. The anonymous user name typically can read files from certain directories on the server, and usually cannot write files to the server.

If you select this option, the user ID is automatically changed to "anonymous."

Password

Type the password which was assigned to you to access the server. Passwords are typically case sensitive, so make sure to use correct capitalization. If you selected "Anonymous FTP," you should use your e-mail address as the password, for example mailuser@company.com.

Save Password

If you want to save the password information with the information about this server, select Save Password. The password will be stored from session to session; however, this means that anyone using your computer can access the ftp site. If you want the password remembered for this session of 1-2-3 only, deselect this option.

Use Proxy

Most companies use a proxy server as an intermediary between their local area networks and the Internet to prevent unauthorized users from accessing the network. A proxy is sometimes known as a firewall. If you are using an Internet service provider, you typically will not use a proxy.

If you use a proxy to access the Internet, select this option.

Passive

If the FTP server you are connecting to is a passive server, it does not provide any information about its directory structure to the computer connected to it, and does not provide any confirmation that commands issued to it are correct. If this is a passive server, select this option.

{button ,AL('H_123_EDITING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS',1)} Go to procedure

Typing a password

Whether you're accessing a remote system or confirming an FTP Host password, you need to enter the appropriate password to continue.

1. Enter the password.
2. Click OK.

Open from Internet dialog box

You can open any workbook from an FTP (File Transfer Protocol) or a Web (World Wide Web) server via the Internet. When you open a workbook on the Internet, 1-2-3 copies the workbook to your workstation where you can make changes.

Choose a task

Opening a workbook from an FTP server on the Internet

Opening a workbook from a Web server on the Internet

Searching for text on the Internet

You can search the Internet for text you have entered in a 1-2-3 cell. 1-2-3 will automatically launch your browser and do a search of Yahoo! for the selected text.

1. Select the cell containing the text you want to search for.
2. Click the Search Internet icon in the set of Internet SmartIcons.



Note If you can't see the set of Internet SmartIcons, choose View - Show Internet Tools.

{button ,AL(`H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Getting started with the Internet Setup Assistant

Before you can open a file from or save a file to the Internet, you must provide information about the FTP server(s) you want to use and information about your Internet connection. 1-2-3 simplifies the process by providing a series of dialog boxes for you to enter all the necessary information. Once you have completed the information requested in the dialog boxes, 1-2-3 will try to connect to the Internet using the information you provided.

Click Next to get started.

Configuring FTP server settings

When you use [FTP](#) to open a file from or save a file to the Internet, you communicate with a server which manages the process. You must provide information about the server you want to use in order to make the connection. You can get the required information from your system administrator or from the person or organization in charge of the FTP server you want to use.

1. Enter a descriptive name for the server you want to access in the "Host description" box.
2. Enter the server's address in the "Host address" box, and the port in the "Port" box.
3. Specify any additional information about the FTP server you want to use.
4. Click Next to configure proxy settings.

{button ,AL('H_123_CONFIGURING_FTP_SERVER_SETTINGS_DETAILS',1)} [See details](#)

Details: Configuring FTP server settings

Host description

Type a name to identify the FTP server. This can be any name you want.

Host address

Type the address of the FTP server on the Internet. Typically, the address is specified in three parts, separated by periods, with the first part of the address being 'ftp'. For example, ftp.lotus.com.

Port

Type the port the server uses to communicate. In most cases, you can accept the default option.

Initial directory

FTP servers have a directory structure much like that of your computer. Specify the starting directory you want to use when you connect to the server.

User ID

Type the User ID which was assigned to you to access the FTP server. User ID's are typically case sensitive, so make sure to use correct capitalization.

Anonymous FTP

If you do not have a specific user ID to access the FTP server, you can probably access the server using anonymous FTP. The anonymous user name typically can read files from certain directories on the server, and usually cannot write files to the server.

If you select this option, the user ID is automatically changed to "anonymous."

Password

Type the password which was assigned to you to access the server. Passwords are typically case sensitive, so make sure to use correct capitalization. If you selected Anonymous FTP, you should use your e-mail address as the password, for example mailuser@company.com

Save Password

If you want to save the password information with the information about this server, select Save Password. The password will be stored from session to session, however, this means that anyone using your computer can access the ftp site. If you want the password remembered for this session of 1-2-3 only, deselect this option.

Use Proxy

Most companies use a proxy server as an intermediary between their local area networks and the Internet to prevent unauthorized users from accessing the network. A proxy is sometimes known as a firewall. If you are using an Internet service provider, you typically will not use a proxy.

If you use a proxy to access the Internet, select this option.

Passive

If the FTP server you are connecting to is a passive server, it does not provide any information about its directory structure to computer connected to it, and does not provide any confirmation that commands issued to it are correct. If this is a passive server, select this option.

{button ,AL('H_123_CONFIGURING_FTP_SERVER_SETTINGS_STEPS',1)} [Go to procedure](#)

Configuring proxy settings

A proxy server is used as a bridge between a local area network and the Internet. It prevents unauthorized users from accessing the network. 1-2-3 did not detect a proxy server was being used by your Internet browser program. If you connect to the Internet through an Internet service provider such as America Online or AT&T, this is probably correct. If you connect to the Internet through your company's local area network, it probably uses a proxy server. You can check with your system administrator to make sure.

1. If you connect to the Internet through a proxy server, select "Connect through a proxy server." If you connect directly, deselect this option, and skip steps 2-3.
2. Enter the address used for the proxy server. You can get the address from your system administrator.
3. Enter the port used to access the proxy server. You can typically accept the default option here.
4. Click Next to connect to the Internet.

Connecting to the Internet

You have completed all the information necessary to connect to the Internet. 1-2-3 will use this information to complete the connection. To change this information or add additional FTP hosts, choose File - Internet - Setup at any time.

- Click Back to review or change the information you provided.
- Click Save to save the information about the FTP host and proxy for use in future 1-2-3 sessions.
- Click Connect to connect to the Internet, and display the Open from Internet or Save to Internet dialog box.

Changing proxy settings

When you installed 1-2-3, it detected that your default browser uses a proxy to connect to the Internet. A proxy is a computer which sits between your company's local area network and the Internet, and prevents unauthorized access. The information about the proxy server was copied to 1-2-3, and that information will be used when you connect.

You can view or change this information if you want. You may want to do this if your computer has multiple ways of connecting to the Internet.

- To view or change proxy settings, click Edit Proxies.
- To continue with Internet setup, click Next.

Specifying proxy information

Most companies use a proxy server as an intermediary between their local area networks and the Internet to prevent unauthorized users from accessing the network. A proxy is sometimes known as a [firewall](#). If you are using an Internet service provider, you typically will not use a proxy. For guidance using proxies, see your system administrator.

1. From the File menu, choose Internet, and then choose Setup.
2. Click the Proxies tab.
3. Specify the [HTTP](#) proxy settings.
4. Specify the [FTP](#) proxy settings.
5. Click OK.

{button ,AL('H_123_SPECIFYING_PROXY_INFORMATION_DETAILS',1)} [See details](#)

{button ,AL('H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;H_123_ADDING_CONNECTION_INFORMATION_FOR_INTERNET_HOSTS_STEPS;',0)} [See related topics](#)

Details: Specifying proxy information

HTTP proxy settings

- Connect through a proxy server - If you connect to the Internet through a proxy server, select “Connect through a proxy server.”
- HTTP proxy address - Type the address of the HTTP server on the Internet. Typically, the address is specified in three parts, separated by periods, with the first part of the address being "http." For example, http.lotus.com.
Type the port the server uses to communicate. In most cases, you can accept the default option.
- Secure proxy address - The address and port number for a secure proxy server. This information is automatically pre-filled from your default browser.
- Advanced - You can specify locations on the Internet or on an Intranet that should not use the proxy information you specified for HTTP proxy address. You can also specify a user ID and password for HTTP connections. If you are not using a proxy to access Web pages, do not complete the information in this dialog box. For more information, see Setting advanced HTTP connection options

FTP proxy settings

- Connect through a proxy server - If you connect to the Internet through a proxy server, select “Connect through a proxy server.”
- FTP Proxy address - Type the address of the FTP server on the Internet. Typically, the address is specified in three parts, separated by periods, with the first part of the address being "ftp." For example, ftp.lotus.com. This information is automatically pre-filled from your default browser.
Type the port the server uses to communicate. In most cases, you can accept the default option.

{button ,AL('H_123_SPECIFYING_PROXY_INFORMATION_STEPS',1)} Go to procedure

{button ,AL('H_123_SETTING_ADVANCED_HTTP_CONNECTION_OPTIONS_STEPS',0)} See related topics

Setting advanced HTTP connection options

These options enable you to specify locations on the Internet or on an intranet that should not use the proxy information you specified for HTTP proxy address. You can also specify a user ID and password for HTTP connections. If you are not using a proxy to access Web pages, do not complete the information in this dialog box.

1. From the File menu, choose Internet, and then choose Setup.
2. Click Proxies.
3. Select "Connect through a proxy server" under HTTP proxy settings and specify the proxy information.
4. Click Advanced.
5. Specify HTTP proxy exceptions.
6. Specify HTTP proxy settings.
7. Click OK to close the HTTP Advanced Options dialog box.
8. Click OK to close the Internet Setup dialog box.

{button ,AL('H_123_SETTING_ADVANCED_HTTP_CONNECTION_OPTIONS_DETAILS',1)} [See details](#)

{button ,AL('H_123_SPECIFYING_PROXY_INFORMATION_STEPS;H_123_WORKING_WITH_INTERNET_CONNECTIONS_OVER;',0)} [See related topics](#)

Details: Setting advanced HTTP connection options

The first time you connect to the Internet, 1-2-3 attempts to obtain the correct proxy information from your default Web browser. If you are able to open documents using your browser, the default settings are correct.

Ask your system administrator for the correct settings to use in this dialog box.

HTTP proxy exceptions

You can specify Web sites that do not need to be accessed through a proxy. You can also specify that a proxy server not be used for intranet addresses.

Do not use a proxy server for

Specify Web site addresses that do not need to be accessed through a proxy server. For multiple sites, separate each site address with a semicolon.

Do not use proxy server for local (intranet) addresses

When you select this option, 1-2-3 does not use the proxy server to access sites on a local intranet. When you deselect this option, 1-2-3 does use the proxy server for intranet addresses.

HTTP proxy settings

- Host - Displays the current proxy for HTTP connections.
- Port - Displays the current port number used for HTTP connections.
- User ID - Enter the user ID that has access to the proxy server.
- Password - Enter the password for access to the proxy server.
- Save Password - Saves the password you type and automatically uses the new password when accessing Web pages. If you do not select this option, the password you type is used for the current 1-2-3 session only.

{button ,AL('H_123_SETTING_ADVANCED_HTTP_CONNECTION_OPTIONS_STEPS',1)} [Go to procedure](#)

Opening a Notes file attachment from within 1-2-3

You can open file attachments stored in documents in a Lotus Notes database without leaving 1-2-3. You must use a 32-bit version of Notes 4.5 or higher.

1. Choose File - Open.



2. Click Lotus Notes.
3. From the "Look in" or "Available Servers" box, select the server which contains the Notes database you want to access. The database can be either on your local hard drive or on a server to which you have access.

You can also click the "Add/Modify Notes Servers" icon to [add a remote Notes server](#).



If prompted, enter your Lotus Notes password and then click OK.

4. From the "Available Servers" list, select the database that contains the Notes document you want to open.

To [choose a database](#) located in a different directory, click Browse.

5. Select the Notes document that contains the file attachment you want to open. You must select the view in which the document appears and then the document in that view.

Tip Click the "+" to expand the appropriate database, view, and document category. (Not all views contain document categories.)

6. In the "File name" box, specify the attached file that you want to open.
7. Click Open.

{button ,AL('H_123_OPENING_A_WORKBOOK_FROM_A_NOTES_DATABASE_DETAILS',1)} [See details](#)

{button ,AL('H_123_OPEN_FROM_NOTES_DB_OVER;H_OPTIONS_OPEN_FILE_REF;H_CREATING_AND_OPENING_FILES_OVER;H_SPECIFYING_A_FILE_OVER;';0)} [See related topics](#)

Details: Opening a Notes file attachment from within 1-2-3

Look in

Lists all available Lotus Notes servers.

Up One Level



Click this icon to move the current display up one level in the hierarchy. For example, if you have a Notes document selected, pressing this button selects the view or category that contains the document. If you have a Notes view selected, pressing this button selects the database that contains the view.

Add/Modify Notes Server



Click this icon to display the [Add/Remove Servers dialog box](#).

Properties



Click this icon to display the properties for the selected file attachment.

Refresh



Click this icon to refresh the currently selected item. For example, if you have a Notes document selected, pressing this button refreshes the list of attachments contained within that document.

List/Details



Click these icons to toggle the display between items in an abbreviated list format and more detailed information about the servers, databases, documents, or attachments. For example, the Details view displays the file name, size, type, and last modified date for attachments.

File name

Type the Notes file attachment name in the "File name" box or select the server, database, document, and file in the "Available Servers" box.

Files of type

Select the type of file you want to open. You do not have to specify an extension unless you are importing the file. You can open the following types of files:

- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)
- Excel (.XLS, .XLT, .XLW)
- Quattro Pro (.WQ1, .WB1, .WB2)
- dBASE (.DBF)
- Paradox (.DB)

1-2-3 opens the file attachment in a separate window.

Browse

Displays a Browse dialog box where you can specify a local Notes databases not stored in your Notes data directory.

{button ,AL('H_123_OPENING_A_WORKBOOK_FROM_A_NOTES_DATABASE_STEPS',1)} [Go to procedure](#)

Saving a file to a Notes database

You can save files as attachments to documents in Lotus Notes databases. You must use a 32-bit version of Notes 4.5 or higher.

1. Choose File - Save As.



2. Click Lotus Notes.
3. From the "Look in" or "Available Servers" box, select the server which contains the Notes database you want to access. The database can be either on your local hard drive or on a server to which you have access.

You can also click the "Add/Modify Notes Servers" icon to [add a remote Notes server](#).



If prompted, enter your Lotus Notes password and then click OK.

4. From the "Available Servers" list, select the database that contains the Notes document in which you want to save the file.

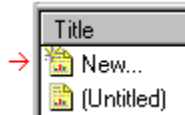
To [choose a database](#) located in a different directory, click Browse.

5. Select the Notes document in which you want to save the file. You must select the view in which the document appears and then the document in that view.

Tip Click the "+" to expand the appropriate database, view, and document category. (Not all views contain document categories.)

6. Attach the file to a Notes document in one of the following ways:

- Double-click the "New" document icon and [select a Notes form and field](#) for the file attachment.



- Type a name for the attachment in the "File name" box and click Save.
- Select an existing file attachment and click Save. Click Yes to overwrite the existing file.

{button ,AL('H_123_SAVING_A_WORKBOOK_TO_A_NOTES_DATABASE_DETAILS',1)} [See details](#)

Details: Saving a file to a Notes database

Look in

Lists all available Lotus Notes servers.

Up One Level



Click this icon to move the current display up one level in the hierarchy. For example, if you have a Notes document selected, pressing this button selects the view or category that contains the document. If you have a Notes view selected, pressing this button selects the database that contains the view.

Add/Modify Notes Server



Click this icon to display the Add/Remove Servers dialog box.

Properties



Click this icon to display the properties for the selected file attachment.

Refresh



Click this icon to refresh the currently selected item. For example, if you have a Notes document selected, pressing this button refreshes the list of attachments contained within that document.

List/Details



Click these icons to toggle the display between items in an abbreviated list format and more detailed information about the servers, databases, documents, or attachments. For example, the Details view displays the file name, size, type, and last modified date for attachments.

File name

Type the Notes file attachment name in the "File name" box or select the server, database, document, and file in the "Available Servers" list.

Files of type

Select the type of file you want to save. You can save the following types of files:

- Lotus 1-2-3 Workbook (.123, .WK4, .WK3, .WK1, .WT4)
- Lotus 1-2-3 SmartMaster Template (.12M)
- Text (.TXT, .PRN, .CSV, .DAT, .OUT, .ASC)
- Excel (.XLS, .XLT, .XLW)
- Quattro Pro (.WQ1, .WB1, .WB2)
- dBASE (.DBF)
- Paradox (.DB)

Browse

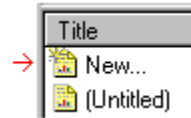
Displays a Browse dialog box where you can specify a local Notes databases not stored in your Notes data directory.

{button ,AL('H_123_SAVING_A_WORKBOOK_TO_A_NOTES_DATABASE_STEPS',1)} Go to procedure

Selecting a Notes form and field

Use the Save to Lotus Notes dialog box to attach a file to a new Notes document.

1. From the Save to Lotus Notes/Domino dialog box, double-click the New icon.



2. Select the form for the Notes document from the "Form" box.
3. From the "Field in which you want to save the file" box, select where you want to save the file attachment.
Note The field you select must be a Rich Text Field (.rtf).
4. To add text into a field on the Notes form, click Other Fields.
5. Type the name for the file attachment in the "File name" box.
6. To save the document as a different file type, select the desired format in the "Save as type" box.
7. Click Done.

{button ,AL('H_123_SELECTING_FORM_AND_FIELD_INFORMATION_DETAILS',1)} [See details](#)

{button ,AL('H_123_SAVE_TO_NOTES_DB_OVER;H_123_SAVING_A_WORKBOOK_TO_A_NOTES_DATABASE_STEPS',0)} [See related topics](#)

Details: Selecting a Notes form and field**Form**

Select the form you want to save your file attachment into. 1-2-3 lists all of the forms available in the selected database.

Field in which you want to save the file

Select the field into which you want to save the attachment. 1-2-3 lists all of the rich text fields available for the selected form.

File name

Type a name for the file attachment.

Save as type

Select the type of file you want to save.

Other Fields

Allows you to select local Notes databases not stored in your Notes data directory.

{button ,AL('H_123_SELECTING_FORM_AND_FIELD_INFORMATION_STEPS',1)} [Go to procedure](#)

Adding information for other fields

You can enter information into text fields in the Notes document before you save the attachment. 1-2-3 lists all available fields in the "Non-computed text fields" box.

1. Select the field into which you want to enter information.
2. Type the information in the "Text to display in selected field" box.
3. Repeat steps 1 - 2 for any additional fields.
4. Click Done to return to the Save to Lotus Notes dialog box.
5. Click Done.

Choosing a Notes database

Use the Browse dialog box to select the database which contains the Notes document you want to access.

1. From the "Files of type" box, select the file type you want.
The default is the Notes database file type.
2. From the "Look in" box, select the directory containing the database you want.
3. Select the database name from the list.
4. Click Open.

{button ,AL('H_123_OPEN_FROM_NOTES_DB_OVER;H_123_OPENING_A_WORKBOOK_FROM_A_NOTES_DATABASE_STEPS;H_123_SAVE_TO_NOTES_DB_OVER;H_123_SAVING_A_WORKBOOK_TO_A_NOTES_DATABASE_STEPS',0)} [See related topics](#)

Adding or removing servers

By default, all Notes servers on your local network display in your list of available Lotus Notes servers. If you want to display only certain Notes servers in your list, complete the following steps.

1. Deselect "Always include local servers in my server list."
2. To remove servers from your list, select the server in the "My Server List" box and click Remove.
To remove all servers from your list, click Remove All.
3. To add servers to your list, select the server in the "Local Notes servers" box and click Add.
Note The Add button is available only if you deselect "Always include local servers in my server list."
4. To add Notes servers that are not part of your local network, click Other.
5. Click OK.

Adding other servers

Use the Add Other Server dialog box to add a server that is not part of the local Lotus Notes network.

1. Enter the name of the Notes server in the "Server" box.
2. Click OK to return to the Add/Remove Servers dialog box.

If the server is available, it will be added to your list of available Lotus Notes servers.

Viewing attachment properties

Use the Attachment Properties dialog box to review information about the currently selected Notes file attachment.

File

The name of the file attachment.

Length

The size of the file attachment.

Created

The date the file attachment was created.

Modified

The most recent date the file attachment was modified.

Sheet

A sheet is an electronic spreadsheet consisting of a grid of 256 columns and 65,536 rows.

- Letters identifying each column appear in the sheet frame above each column.
- Numbers identifying each row appear in the sheet frame to the left of each row.

title bar

Displays the name of the current workbook and other information. When you highlight a command, the title bar displays a description of the command. You can move the 1-2-3 window by dragging the title bar.

The title bar also contains the window control buttons.


Minimizes the window to an icon



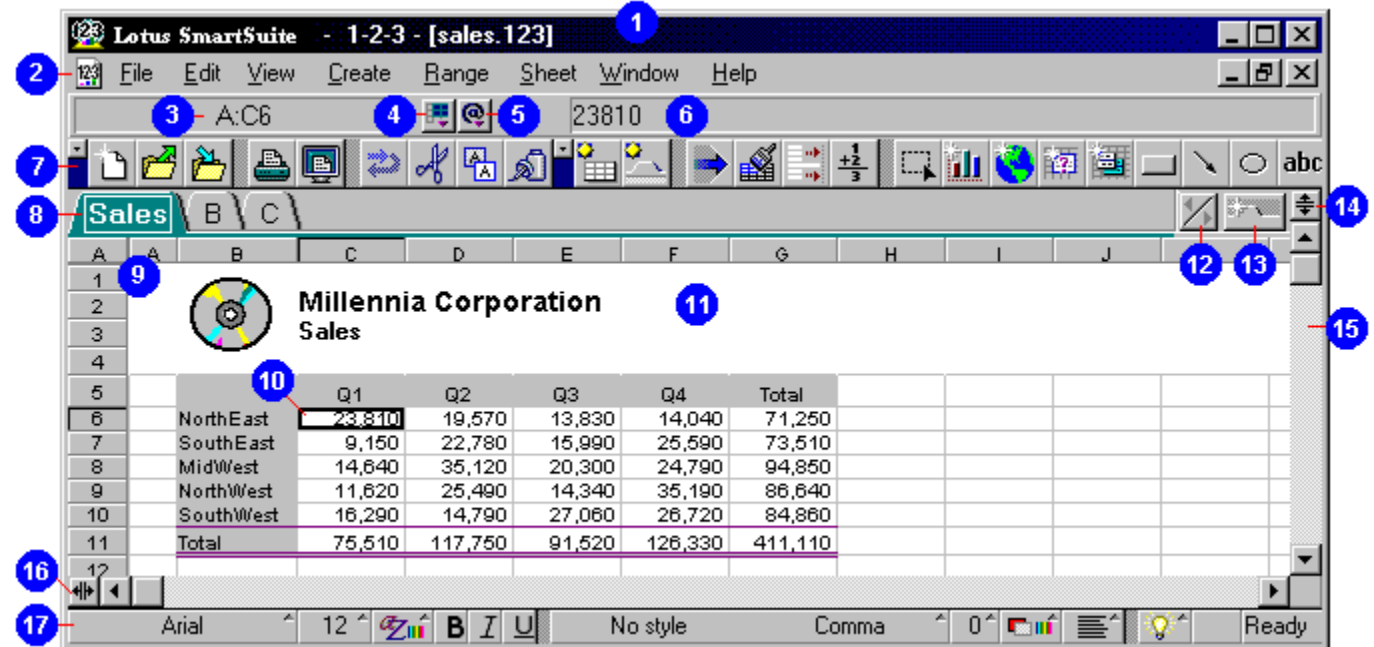
Closes the window

Expands the window to its maximum size or
restores the window to its previous size

Overview: Parts of the 1-2-3 window

Tip Click the Maximize button  in the top right corner of the Help window to see the whole illustration.

In the sample 1-2-3 window below, each number identifies a different part of the window. To learn about each part, find the same number below the picture and click the text to display a description.



- | | | |
|------------------------|-------------------------|-------------------------|
| 1. Title bar | 7. SmartIcons | 13. New Sheet button |
| 2. Menu bar | 8. Sheet tab | 14. Horizontal splitter |
| 3. Selection indicator | 9. Sheet frame | 15. Scroll bar |
| 4. Navigator | 10. Current cell | 16. Vertical splitter |
| 5. @Function selector | 11. Sheet | 17. Status bar |
| 6. Contents box | 12. Sheet scroll arrows | |

{button ,AL('H_THE_INFOBOX_OVER;H_SHEETS_OVER;H_USING_THE_STATUS_BAR_OVER;','0)} [See related topics](#)

@Function selector

Displays the @function menu. Select an @function from the menu to insert it in a cell. You can add your most-used @functions to the menu.

Close button

Closes the active window.

Column

Click the column letter to select the whole column.

Contents box

Lets you edit the contents of a cell. Click in the contents box to start editing. After you finish, press ENTER or click the Confirm button:



To abandon an edit, press ESC or click the Cancel button:



The Confirm and Cancel buttons appear only when you enter or edit data in the contents box.

Navigator

Displays the list of named ranges in the current workbook.


Selection indicator

Displays the address or name of the current selection.

Horizontal splitter

Drag to divide the sheet into horizontal panes.

Maximize/Restore button

Maximizes the active window. If the window is already maximized, the Restore button appears .

Menu bar

Contains the commands you use with 1-2-3. Some commands in the menu change depending on the current selection.

Minimize button

Reduces the active window to an icon.

New Sheet button
Inserts a new sheet.

Row

Click the row number to select the whole row.

Scroll arrow

Click the scroll arrows to move within a window.

Scroll bar

Click the scroll arrows or drag the scroll box to move within a window.

Scroll box

Drag the scroll box to move within the window.

Current cell

The cell pointer marks the current cell with an outline.

Sheet letter

Selects all cells in a sheet.

SmartIcons

SmartIcons are shortcuts for many tasks in 1-2-3. Choose File - User Setup - SmartIcons Setup to customize SmartIcons.

Sheet scroll arrows

Click the arrows to scroll left or right to sheet tabs not in view.

Alignment

Changes the alignment of the current selection.

Status bar

The bar along the bottom of the 1-2-3 window. The status bar displays buttons that let you perform different tasks. For example, you can change fonts, color, alignment, number format, fill pattern, and so on.



Bold

Adds bold to the current selection. Click again to remove bold.

Background color

Changes the background color of the current selection.

Font color

Changes the font color of the current selection.

Font name

Displays a list of fonts that you can apply to the current selection.

Point size

Changes the point size of the current selection.

Italic

Adds italic to the current selection. Click again to remove italic.

Number format

Changes the number format of the current selection. Click to display the list of frequently-used number formats.

Decimal places

Changes the number of decimal places for the current selection.

Mode indicator

Shows what mode 1-2-3 is in. For example, Point mode indicates you are selecting a range to work with; Edit mode indicates you are changing cell contents.

Named style

Displays a list of named styles that you can apply to the current selection.

Underline

Adds an underline to the current selection. Click again to remove underline.

Sheet tabs

Click the tabs to move from sheet to sheet.

Vertical splitter

Drag to divide the sheet into vertical panes.

