Contents

Please contact Informatik Inc. if you need help.   This is a comprehensive system and you probably will need assistance.   For a limited period, Informatik Inc can set up your first database table. Please contact Informatik Inc at info@informatik.com or CompuServe 76534,1166.   Always read the Readme.txt file for the latest changes.

Database Management (Create and Modify the Database Structure)

The Database Management is a separate sub-system with its own Online Help system..

From the Database menu of the **main window** (all windows closed), choose Database Design.   Or, if you are in the Database Selection window, choose Database Design from the Design menu.

Tutorial, Getting Started

For an extensive and updated tutorial, please read the Tutorial.txt text file.

Copyright, Registration, Technical Support

This system was developed by Informatik Inc, P.O. Box 868, Devon, Pennsylvania 19333.   For information on program modifications, systems integrations and custom applications, please contact Informatik Inc.

This is a copyright-protected shareware product.   If, after review and evaluation, you like the software, please register.   Shareware is based on trust, and we hope that all users will register. Upon registration and payment of the registration fee, Informatik Inc will send you the latest master diskette, a registration certificate and a User Guide.   Registered users will receive technical support and software upgrades as specified in the application.

To register

From the About menu, choose 'Registration, Copyright, License' and follow the instructions.

To obtain technical support

From the Help menu, choose Technical Support and follow the instructions.

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Add (Post) a New   Record

See also Edit a Record .

You must be in the Data Edit window.   You get there by pressing the Data Edit button (pencil) in the tool bar, or from the menu.

To add a record

1. From the Edit menu in the Data Edit window, choose Clear Screen, or click the Clear button. Generally, this step is not required if all fields are already blank.   Clearing the screen creates a blank record, ready to be filled in.

2. Enter the data.

3. Press the Update button, or choose Update Record from the File menu.

4. The screen is cleared and the system is ready for the next record.

Edit (Change) an Existing Record

See also: Add a New Record
          Delete a Record

You must be in the Data Edit window.   You get there by pressing the Data Edit button (pencil) in the tool bar, or from the menu.

To edit an existing record

1. From the Data Edit window, select the record that you want to change:

    From the File menu, choose First, Next, Prior or Last Record, or Use the 'Arrows' button to move to the next or prior record, or use the search for the record.   See Search.

2. Make the changes to   the record.

3. Press   the Update button or choose Update Record from the File menu or move   to another record.   Moving to another record automatically updates the changes.

Search

You must be in the Data Edit window.   You get there by pressing the Data Edit button (pencil) in the tool bar, or from the menu.

1.   Click the field that you want to search.

2.   Choose the Search menu.

3.   In the dialog box, specify the search characters (or type ***REPORT to access the records of the SQL report).

4.   Press the Search button.

The system displays the first matching record.   If there are several matching records, use the 'Arrows' button to move to the next or prior record.

The search feature filters out the records with matching word patterns.   Only the matched records are included in the lineup of records.   To remove the filter, blank out the search box (or enter an asterisk) and click the Search button again.

Exit

To exit the system, choose Exit from the File menu.

Export, Import Data

Before you export data, the data must be selected with a query. The export will include only the records listed in the Query Report. The export format is standard "ASCII delimited" or 'tab delimited'.

To export the records on the SQL Report to a file (Comma and Quote delimited)

1. In the Query window, run a query to select the records for export.

2. Optionally, tag the records that you wish to export. See Tagging Items

3. From the File menu, choose Export Data.

4. In the Save Dialog, select the file name. You may need to change the directory and/or extension name first.

5. Choose OK.

To export the records to the Clipboard (Tab delimited)

1. In SQL Query, run an SQL query to select the records for export.

2. Highlight the cell area that you wish to export to the clipboard (tags are ignored).

3. From the File menu, choose Export to Clipboard.

4. In a spreadsheet application, use the Paste function to copy the data into the spreadsheet.

Import Data

Data is imported via the Data Administration sub-system. Start up the Database Administration and select Import from the Options menu.

Delete a Record

see also: Purge

You must be in the Data Edit window.   You get there by pressing the Data Edit button (pencil) in the tool bar, or from the menu.

To delete a single record

1.   From the Edit menu in the Data Edit window, choose Delete Record.

2.   Confirm.   The action cannot be undone.

Restore Record

To restore a record

From Data Edit,   choose Restore Record from the File menu.   The record will be restored to the state of its last update.

Hard Returns

To insert a hard return into the text

1. In a data input field in the Data Edit window,   place the insertion point where you want to insert a hard return.

2. From the Edit menu, choose Hard Return.

ASCII Characters

To insert an ASCII character

1. In a data input field in the Data Edit window,   place the insertion point where you want to insert an ASCII character.

2. From the Edit menu, choose choose ASCII Characters.

3. From the pop-up list, select the character.

Purge the Database

see also: <u>Delete</u>

Before you can purge the database, you must select the purgeable records with a query.   Only the records included in the SQL Report will be purged.   Make a complete back-up tape before you run a purge.

<u>All records in the SQL Query will be purged.   Tagging individual records has no effect on the purge action.</u>

To purge the database

1. In the Query window, run a query to select the purgeable records.

2. Review the Report.   Continue, if you are satisfied that all records on the Report can be purged.

3. From the File menu, choose Purge.

4. Carefully read the warning on the Purge Dialog.   Click on the OK button   to continue, or select Cancel.

Graphs

Records displayed in the SQL Report can be converted to a graph.

To create a graph

1. Run a query.   Do NOT format any of the values.   You may want to run a crosstab.
    See Crosstab

2. Highlight the cell area that is applicable to the graph.   While holding down the left mouse button, drag the cursor over the selected records and pertinent columns.   Release the left mouse button.

    The first column highlighted represents the labels for the X-axis of the graph.

3. The second and subsequent columns of the highlighted area must be numeric data fields that represent the data sets for the graph (Y-axis).   The graph will only include numeric data columns; any non-numeric data columns are ignored.

4. If the columns are not correctly aligned, re-sequence the columns with the 'Sequence of Columns' option in the Report menu and rerun the query.

5. From the Report menu, choose Graph.   The Graph window appears.

6. Select the type of graph, choose the style, add grids, titles, etc.   The graph is automatically redrawn.

7. From the File menu, select Save or Print. All saved files are in the Metafile (WMF) format.   You can also copy the graph to the clipboard and paste it to other Windows applications, such as a word processors.   To copy to the clipboard, choose Copy from the Edit menu.

8. Press the close button, or choose Exit from the File menu.

Address Labels

To create a data merge file for label printing

1. Select the customer name, address and other label fields with a query.   Ensure that the zip code column is in the logical city-state-zip order.   To change the sequence of a field, place the cursor in the field that you want to re-sequence, then choose Sequence of Columns from the Report menu.

2. From the File menu, select Print Labels.   The Labels window opens.

3. In the Labels window, choose a standard label format from the Labelsize menu, or choose a private format from the File menu.

   To customize a new format specify the parameters: Select the measurement standard (centimeter or inch) and select   the appropriate word-wrap, blank-line-compaction modes. In the fields provided, type the margins, width and height of the label stock, and specify the number of columns and rows.   The margin must be a at least 1/4 inch.   The width represents the distance from the left edge of the label to the left edge of the next label.   The height represents the distance from the top edge of the label to the top edge of the next label. Postnet bar codes require a minimum of 1/8 inch left margin and a minimum of 1/25 inch top margin.

   If you have previously saved the label specifications under the name 'Label.lbl', the system will use these specifications as a default.

4. In the Merge Fields box, you can change the layout of the label.   Each number displayed in the box is a placeholder for the text of the numbered column in the SQL Report.   You can re-sequence and realign the fields, delete fields, add spacing, add punctuation signs, add literal characters, etc.   The printing function always places a single space between the fields if the field is not blank.   To force a blank line, type [CR] on the blank line.

5. To convert a text to a bar code (Code39), type BARCODE immediately after the field flag, for example [5]BARCODE.   To convert a text o a POSTNET bar code, type the word POSTNET immediately after the field flag.

6. From the Font menu, choose Font Selection.   Select the font name and font attributes, such as style, size, bold, etc.   Choose OK.

7. Load your printer with the correct label paper.

8. Choose the View/Print button, or choose Print Labels from the File menu.   A sample label of the active record is displayed.

9. Review the sample display.   To continue, press OK.   In the Printer dialog, select the number of copies.   Choose OK.

10. To save the print specifications, select Save As from the File menu.   Specify the directory and file name, then press the OK button.

11. Press the Close button, or choose Exit from the File menu.

Printing the Report

To print a report

1. Before you print the report, you may want to   adjust the column width.   In the heading of the report, point to the column partition line and, while holding the left curser down, move the line to the left or right.

2. From the File menu, choose Print Standard Report.   To print the field values vertically, choose Print Vertical Report.

3. The system prompts you to enter a short report heading.

4. In the Print Dialog, select the printer (if required).

5. Choose OK.

Clone Record

To clone a record

You must be in the Data Edit window.   You get there by pressing the Data Edit button (pencil) in the tool bar, or from the menu.

1. In the Data Edit window, select the record that you want   to clone.

2. From the Edit menu, select Clone Record.   The cloned record is displayed.

3. Make the necessary changes to the cloned record.

4. Choose Update button.

Save, Retrieve SQL Query

An SQL query statement can be saved to disk and later be retrieved.

To save an SQL query

1. Create an SQL query.

2. From the File menu, choose Save SQL.

3. In the Save Dialog, select the file name.   Ensure that you are in the correct directory.

4. Choose OK.

To open (retrieve) an SQL query

1. From the File menu of SQL Query, choose Open SQL.

2. In the Open Dialog, select the file name.   You may need to change the directory and/or extension name first.

3. Choose OK.

Select the Database and Table

Before you use the Data Edit or Query, etc., ensure that you are accessing the correct database and table.

To change the database or the table

1. Open the Database Selection window.

2. In the Database Selection:

    Verify the drive.   Change it, if necessary.
    Choose the directory from the Directories listing (double-click).
    From the Databases listing, choose the database.
    From the Tables listing, choose the table.

3, Choose OK.   Then choose Query or Data Edit, etc. from the toolbar (or menu)

SQL Query

Please read the SQL.TXT file for up-to-date help and examples. You should periodically download the latest SQL.TXT file from the CompuServe library.

1.   Open the Query window.   From the Edit menu, choose Clear Screen, or press the Clear button.   This step is not required if the screen is already cleared.

2.   In the SQL Query Builder grid, select the individual fields that you want listed as columns in the Query report. Just click the cell in the Select column.   A check mark appears in the selected cell.   The fields are already pre-selected.   Click the blue 'Check mark' button to include all fields, or the white 'Check mark' button to exclude all fields.   To un-select an individual field, place the cursor in the appropriate cell in the Select column and click, or press the Delete key.

The selected fields can now be filtered, aggregated (summarized) and sorted, as described below.   In addition to the listed database table fields, you can create calculated data columns, such as variances, data permutations, etc.   This more advanced but powerful application is described at the end of this topic.

3.   Click a Source Expression cell.   A listing of available Filter Operators is displayed.   In most cases, you will use the '= is' or the 'LIKE' filter operator.   If so, you need not select the filter operator; the system will do it for you.   The default filter operator depends on the type of the field (numeric or non-numeric)

 4.   In the yellow input box, type a filter expression.   The entry can be a single value, a wild card word or an expression.   If the filter expression uses a word that is also a field name or a system keyword (but unrelated), then place a single quote at the beginning and at the end of the word, or place an asterisk at the end of the word.

Examples:

>= 1000   (More or equal 1000)
IN NY, PA, NJ   (just items in NY, PA and NJ)
NOT IN NY,PA,NJ   (all, except in NY, PA and NJ)
BETWEEN 1000 and 2000   (items between 1000 and 2000)
NOT BETWEEN 1000 and 2000   (all, except items between 1000 and 2000)
LIKE SM   (all items starting with the letters 'SM')
< date()   (transactions before today's date)
<> TrxDate   (items that are not equal to the date in the TrxDate field)
Is NULL   (records with a blank field)

For more detail please see SQL Expressions and Functions

5.   Complete your query by selecting **summary**, **sorting**, **formatting** operators and **column totals**. These features are optional and are often not required for straightforward queries.   If you place filters in several fields, review the 'and/or' parameters.   They are defaulted to 'and' but you may wish to change them to 'or'.

6.   You can rearrange the sequence (order) in which the fields are displayed in the SQL Report. In the SQL Builder grid , select the row that you want to re-arrange.   From the Report

menu, choose Sequence of Columns and specify the new row position.

7.   Press Query button,   press F8 or choose Run Report from the Report menu.   A listing of matching records is displayed.   Adjust the column width, if necessary, by dragging the column separator in the column heading.

8.   Optionally, for interest, review the SQL statement.   From the Report menu, choose View SQL Statement.   If you know the SQL language, feel free to change the SQL statement.   To close the SQL window, run the SQL query or choose Hide SQL Statement from the Report menu.

        If you modify the SQL Statement, it must be run with the Execute SQL Statement in the Report menu, NOT with the Query button.

9.   You can refine the results with additional filters and sorts.   From the Report menu, select Refine Query.

10.   To view the detail of one record tabulated in vertical format, select the record and choose Summary of Record from the Report menu (Y + CTRL).

Aggregate and Filter Combo

You can combine an aggregate function with a filter expression.   For example, you may want to list the states where the total aggregate sales volume exceeded one million dollars.   In this case insert the 'Sum' aggregate in the Sales Volume row, select the >= filter operator and type 1000000 as the filter expression.   Check the State row (only the State row should be checked; all other rows should normally remain un-checked.)

Create calculated columns

You can create additional 'calculated' columns, such as variances between two fields, calculated values, etc.   Click the blank Field cell (second column) with a 'plus' picture in the bottom row.   Type the selection formula.

Examples:

Sales - Budget AS Variance
        will display the variance between the Actual and Budget fields and produce a new report column labelled 'Variance':

Datepart("m",InvDate) AS Month
        will display the month of the InvDate field and produce a new report column labeled Month. (For quarters, use "q", for year, use "yyyy", for day, use "d")

IIF(Actual > Budget ,"Good","Bad")
        will display 'Good' if the Actual exceeds Budget, and 'Bad' if Actual is below budget.

Date() - [InvDate]
        will display the number of days between a   date shown in the InvDate field and today's date.

If the field name has an embedded space, you must enclose the field name in square brackets, e.g.

[Sales Amount].   Notice that the keyword 'AS' (or 'as') is required to specify the report column label. Without the AS keyword, the column header will be a system generated code.

There is virtually no limit what you can do.   Any good book on SQL will give you further insight into the

Tagging Items

Records on the SQL Report can be tagged.   Tagging is useful if you want to print   or export only a few selected records   from a SQL Report.

To tag records

In the SQL Report, double-click the record.   A check mark appears in the first cell of the record.   To undo a tag, simply double-click the record again, or press the Delete key.

-or-

Highlight the rows and choose Tag Record from the Edit menu.   To highlight the rows, drag the mouse over the records while holding down the left mouse button.

The printing or export functions include only tagged items (if there is at least one tagged item).

Please note that purgeable items cannot be selected with the tag method.   Also, tagging has no effect on the Filter and Sort methods in the Refine menu.   The Refine procedure removes all the tags.

Crosstabs

Often, you want to see the result of a query in the form of a spreadsheet or 'crosstab'.   Crosstabs are also ideal foundations for graphs.

To create a crosstab

1.   Open the Query window.

2.   Specify the filter criteria as you would for a regular query.   Sort and aggregate functions will be ignored in the crosstab.

3.   From the Crosstab menu, select Crosstab.   The Crosstab window opens.

4.   From the Group list, select the Group field.   In the spreadsheet, the Group is the left side vertical label.

5.   From the   Product list, select the Product field. In the spreadsheet, the Product field is the horizontal spread, e.g. products.

6.   From the Data list, select the Data field.   In the spreadsheet, the Data is the two-dimensional spread of detail, e.g. the body of data.

7.   From the Aggregate (Summaries) list, select the type of 'aggregate' calculation, e.g. sum, maximum, minimum, average, item count.   "Sum' is the traditional aggregate.

8.   Optionally, select a sort type and an format for the data.

9.   Choose OK.

The crosstab function create an SQL statement which can be viewed and modified.   From the Report menu, choose View SQL.   You should not change the SQL statement unless you are familiar with the SQL language.   A modified SQL query must be run from the Report menu (Execute SQL Statement), NOT with the Query button.

SQL Expressions and Functions

See also: <u>SQL Query</u>

The SQL filter consists of a **filter operator** and a **filter expression**.   The format of the filter expression depends on the type of filter operator.   Some examples of filter operators and and filter expressions are shown below:

=	Equal (is)
>	More
>=	More or equal
<	Less
<=	Less or equal
<>	Not equal

These operators search for **exact** matches.   The filter expression can be a single value, a formula or a reference to a table/field, system date function, etc

1/1/94, 3/31/94-1/31/94
100, 1000+250-(50/2)
Actual, Budget.   (Where Actual and Budget are field names)
Date(), Date() + 30.   (Date () is a function that returns the current date)

LIKE, NOT LIKE
These operators search for **patterns**, not exact matches.   The filter expression typically is a word (or phrase) with embedded or trailing wild card characters.   There are three types of wild card characters:

? stands for a single character,
stands for a single digit (0-9),
* stands for a sequence of zero or more characters.

The system always appends a trailing asterisk (*) and you should not use it at the end of a word. (But you can remove it in the SQL statement. To do so, go to the SQL menu).

Examples of filter expressions:

SM returns Smith, Smyth, Smeaton, etc   (remember, the trailing asterisk is not required)
M?LLER returns Miller, Muller, etc
##/12/95 returns all the dates in December 1995
'Miller' returns only Miller names
*Miller' returns names ending with Miller, such as Joe Miller, Kornmiller, etc.

BETWEEN,   NOT BETWEEN
The filter expression must provide the 'from' and the o' values, separated by the 'and'.   Wildcard characters are not allowed.

Example: 100 and 200

IN, NOT IN
This very useful (and often overlooked) filter expression returns the records that match the listed values.   Don't forget to enter commas between the values.   Wildcards are not permitted.

Example: 100, 110,120,130,140

IS NULLIS, NOT NULL
Returns blank (or not blank) values.   This operator is useful to isolate fields that are blank or not blank.

Functions

The supported functions include: DateSerial, Year, Month, Day, Weekday, TimeSerial, Hour, Minute, Second, Chr, Asc, Hex, Oct, Val, Fix, Int, Abs, Sgn, Atn, Cos, Sin, Tan, Format, Lcase, Ucase, Space, String, Len, Instr, Left, Mid, Right, Trim, Ltrim, Rtrim, DateDiff, DateAdd, DatePartDate, Time, Now, Iif, IsNull, IsDate, IsDate, IsNumeric.

Some of the most often used functions are explained below.

Date()
Returns the current system date.

DatePart()
Extracts part of the date, for example the month, the quarter, the year.
Example: DatePart("m",Date()) returns the month of the current date.   To extract the quarter, use "q", to extract the year, use "yyyy", to extract the day, use "d".

DateAdd()
Adds days, months or years to a date.
Example: DateAdd("m",1,Date()) adds 1 month to today's date.

DateDiff()
Returns the number of days (etc) between two specified dates
Example: DateDiff("d","3/1/95","1/31/95")
Example: DateDiff(Duedate,Billingdate)
Example: DateDiff(Date(),Billingdate)

Format()
Converts the parameter.

Examples:
Format(Date(),"mm/dd/yy")
Format(Datefield,"dddd")
Format(Datefield,"hh:mm AM/PM")

See Format section below.

Left()
Returns the specified number of characters from the left.

Example: Left(Customer,5) returns the 5 left-most characters of the Customer field.

Right()
Returns the specified number of characters from the right.
Example: Right(Customer,5)

Mid()
Returns the specified number of characters inside a string.
Example: Mid(Customer,4,5) returns 5 characters from the Customer field, starting with the 4th character.   If the 'length' parameter is blank, all characters from the starting point are returned.

Len()
Returns the number of characters in a string.
Example: Len(Customer) returns the number of characters in the Customer's name.

InStr()
Returns the character position of a searched string.
Example: InStr("Abcdefg","d") returns 4 (d is the fourth letter in the string).

IIF()
Evaluates the expression and returns the correct answer.
Example: IIF(Due < Date(),"Overdue",""). If the Due date (from the table) is earlier than today's date, show "Overdue", otherwise leave blank.

IsNull(), NOT isNull
Returns TRUE if value is NULL (i.e. invalid)
Example: IFF(IsNull(Billingdate),"INVALID","VALID").   If Billingdate field is invalid (null), return INVALID, otherwise return VALID.
Example: IFF (NOT IsNull(Billingdate),"VALID,"INVALID").   Opposite of above example.

LTrim(). Rtrim(), Trim()
Trims the blank spaces at the left, at the right or both sides.   This function is useful when concatenating fields where a field may be blank.
Example: Rtrim(Firstname & " " & Middlename) & " " & Lastname.   The extra space caused by a non-existing middle name is eliminated.

Arithmetic Operators

+, -, *, / are the basic mathematical functions for adding, deducting, multiplying and dividing.

Use the **back-slash (\)** for divisions where the result must be an integer (no fractional values).   For example: 100 \3 = 33

Use **Mod** to find the fractional value of a division.
For example: 100 Mod 3 = .33333

Use the **ampersand (&)** operator to concatenate text values:.
For example: [City] & ", " & [State] & " " & [Zip] = Devon, Pa 19333
(City, State and Zip are database fields)

Format

The Format function requires specific format keywords.   Please refer to the Format function above.

Popular format keywords are:

q	Quarter of the year (14)
y	Day of the year (1366)
yy	2digit year
yyyy	4digit year
m	Month without leading zero
mm	Month with leading zero, e.g. 09
mmm	Abbreviated month, e.g. Feb
mmmm	Month spelled out, e.g. December
d	day without leading zero
dd	day with leading zero, e.g. 02
ddd	Abbreviated day, e.g. Wed
dddd	Day spelled out, e.g. Friday
hh	Hour
mm	Minute
AM/PM	Uses 12hour clock, e.g. 3:15 PM
am/pm	Uses 12hour clock, e.g. 3:15 pm
A/P	Uses 12hour clock, e.g. 3:15 P
a/p	Uses 12hour clock, e.g. 3:15 p
Currency	Amount with currency sign, e.g. $1,000.00
Standard	Standard value presentation, e.g. 12,000.00
Percent	Expressed as a percentage, e.g. 10%
#,##0.00##	Number with minimum of two and maximum of four decimals
Long Date	Date format as specified in Windows Control Panel
Medium Date	Date format as specified in Windows Control Panel
Short Date	Date format as specified inWindows Control Panel

Refine the SQL Query

Sometimes you may not be satisfied with the SQL Report.   Instead of re-creating the SQL statement, you can refine the current report with sorting, additional filtering, and totals.

To filter out data from an existing SQL Report.

1.   From the Report menu, choose Refine Query | Filter.   The SQL Filter window appears.

2.   From the Field list, select the field on which you want to apply a filter.

3.   From the Filter Operator list, select the filter operator.

4.   In the Filter Expression field, enter the filter expression.

5.   Choose OK.

To re-sort the existing SQL Report

1.   From the Report menu, choose Refine Query | Sort.

2.   From the list of options, select the field and sort option.