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Click an icon from the tool palette shown on the left.

Or select a Authorware menu for information on commands in it:

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Graphics toolbox

Tool bar

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Using Authorware Help

## Using Authorware Help

This help system contains screens of information on using Authorware. These screens are arranged in topics.

You can navigate through help topics by clicking underlined words (in green). For example, to go to the contents screen click [Contents](#).

Buttons at the top of the help window help you find help topics:

- Click the **Contents** button of the help screen to see a list of help categories.
- Click the **Search** button of the help screen to see an index of the help system.
- Click the **Back** button to see the previously displayed help topic. (This button is not always active).
- Click the **History** button to see which help topics you have viewed. (This button is not always active).
- Click the << and >> buttons to browse backward and forward through Authorware help. (These buttons are not always active).

You can also select commands from the Help window menus:

- Use the **Copy** command of the Edit menu to copy the text of a topic into the clipboard. This is especially useful for Lingo example topics.
- Use the **Annotate** command of the Edit menu to enter and save your own comments on a help topic.
- Use the **Bookmark** menu to assign a bookmark to the displayed help topic or to return to a topic that has a bookmark assigned.
- For more information, select the **How to Use Help** command of the Help menu of the Authorware Help window.

### Related topics:

[Acknowledgments](#)  
[Copyright](#)

## **Authorware 3.0 Help credits**

The Authorware 3.0 Help system was written by Jeff Swartz, based on sections from *Authorware Reference* by Judy Helfand and Sylvia Lehnen. Documentation management by Jeff Schwamberger. Special thanks to Brian Herring and Ronni Asrouch.

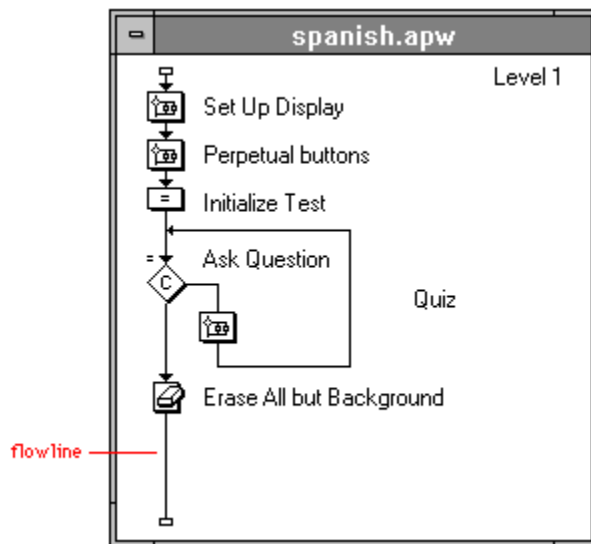
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## Flowline

With Authorware you construct a multimedia piece by assembling icons on a flowline.

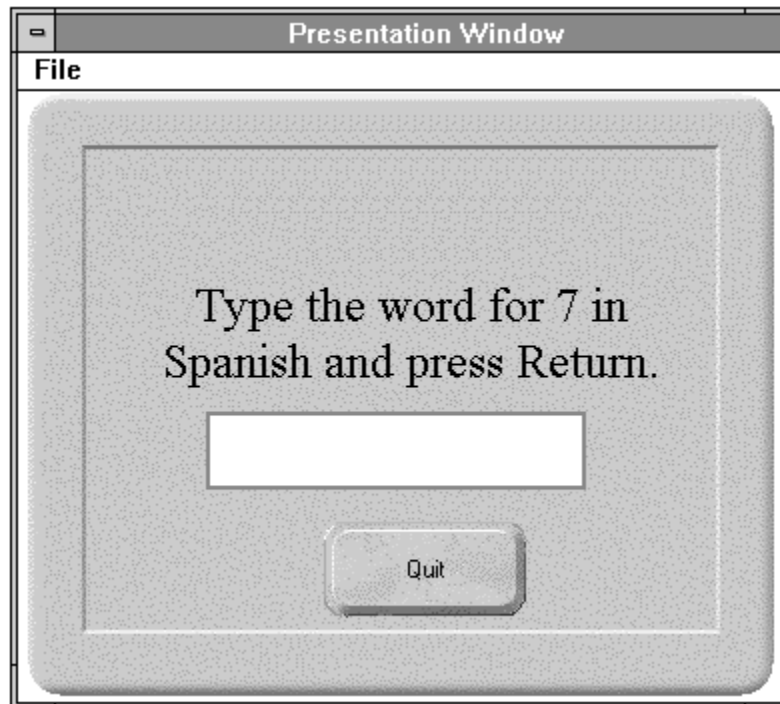


Icons contain the objects that you include in the piece. Different types of icons contain different types of objects, such as graphics, text, sound, digital video movies, or a set of instructions.

## Presentation window

The visual parts of the piece appear in the presentation window. This is where you arrange objects on screen and test-run the piece as you construct it.

Here is an illustration of the presentation window:



## Control menu

The Control menu is the drop-down menu in the upper left corner of the Authorware window. It contains only one command that is specific to Authorware: Author Menus On/Off. The rest of the commands are standard Windows commands.

### Author Menus On/Off

The Author Menus On/Off command is active while you're running the piece, if the presentation window is as large as or larger than your screen. The author menus are automatically displayed while you're editing in the design window or the presentation window.

If you need to use the author menus while running the piece, choose Author Menus On from the Control menu. The author menus appear in the presentation window title bar, and the command in the Control menu changes to Author Menus Off.

The author menus also appear whenever Authorware encounters an empty icon, such as a calculation icon with no statements or a display icon with no objects.

## **File menu**

Click a menu command for more information:

- [New File](#)
- [Open File](#)
- [Import](#)
- [Close](#)
- [Save](#)
- [Save As](#)
- [Save And Compact](#)
- [File Setup](#)
- [Navigation Setup](#)
- [Video Setup](#)
- [Package/Package Library](#)
- [Page Setup](#)
- [Print](#)
- [Print Screen](#)
- [Send](#)
- [Exit](#)

The File menu includes options found in most Windows and Macintosh applications. All of the options are related to the current piece except for Video Setup, which affects all Authorware files you open.

**Related topic:**     [List of recent files](#)



## List of recent files

Click File and hold down the mouse button to display a list of the Authorware files you have worked on since you started Authorware on your computer. To open one of these files, select it in the list. Note that each filename includes the files path. If you're working on another piece when you select a file from this list, Authorware prompts you to save any changes before closing the file.

## Edit menu

Click a menu command for more information:

- [Undo](#)
- [Cut](#)
- [Copy](#)
- [Paste](#)
- [Paste Special](#)
- [Clear](#)
- [Group](#)
- [Ungroup](#)
- [Select All](#)
- [Insert Object](#)
- [Links](#)
- [Object submenu](#)
- [Find/Change](#)
- [Find Again](#)
- [Check Spelling](#)
- [Get Info](#)

The Edit menu includes standard Cut, Copy, and Paste commands, as well as commands for grouping objects and icons, finding and changing text, getting information about icons, and checking the spelling of icon titles, keywords, and text. This menu also contains the commands that make it possible to link and embed objects created in other applications.

## Data menu

Click a menu command for more information:

[New Variable](#)  
[Show Variables](#)  
[Show Functions](#)  
[Load Function](#)  
[Number Format](#)  
[Calculations](#)

The Data menu contains the commands you use to display information about variables and functions, to create variables and load functions, to set up how numbers appear when Authorware displays them, and to attach calculation icons to other icons.

For more information about variables, functions, and calculations, see Chapters 3 and 4 in *Authorware Reference* and Chapter 9 in *Using Authorware*.

## Library menu

Click a menu command for more information:

- [Create Model](#)
- [Load Model](#)
- [Unload Model](#)
- [Paste Model](#)
- [New Library](#)
- [Open Library](#)
- [Libraries](#)
- [Show Library Links](#)
- [Buttons](#)
- [Cursors](#)

The Libraries menu contains the commands for working with models and libraries. Models are file segments that you save as separate files; you can then load them into the Libraries menu and quickly paste them into any Authorware piece. Libraries are files in which you can store content outside the Authorware piece and then use that content in one or many Authorware pieces.

For instructions on using libraries and models, see Chapter 8, "Reusing Content and Logic," in *Using Authorware*.

## Attributes menu

Click a menu command for more information:

- [Effects](#)
- [Transition](#)
- [Lines](#)
- [Fills](#)
- [Modes](#)
- [Color](#)
- [Bring to Front](#)
- [Send to Back](#)
- [Show Tool Bar](#)
- [Show Grid](#)
- [Snap to Grid](#)
- [Align Objects](#)
- [Keywords](#)
- [Show Connections](#)

The Attributes menu contains the commands you use to apply attributes to an icon you select. The Attributes menu is available when you edit a display in the presentation window and the toolbox is displayed.

## Text menu

Click a menu command for more information:

[Font](#)  
[Size](#)  
[Style](#)  
[Alignment](#)  
[Scrolling Text](#)  
[Apply Styles](#)  
[Define Styles](#)  
[Edit Navigation](#)

The Text menu contains the commands that apply to text objects. This menu is active whenever you're editing a display.

Use these commands to apply formatting attributes to selected text, such as the font type, font size, and styles. By defining and applying named styles, you can apply a combination of these attributes in a single step. You can also use named styles to define interactive attributes in addition to formatting attributes, and use those styles to create hyperlinks between a piece of text and a page attached to a framework icon.

You can also apply margins and tabs to paragraphs, set up scrolling text boxes, and define whether the lines in a paragraphs are centered or whether they line up on the right or the left side.

Most of the commands in this menu apply to selected text. There are several ways to select text:

- Use the pointer to select the entire text object.
- Use the text tool and drag to select a range of text.
- Shift-click to select multiple text objects.
- Insert the cursor at the point where you want the attribute to start.

## Try It menu

Click a menu command for more information:

Run

Run From Flag

Proceed/Pause

Show Current Icon

Jump to Icons/Jump to Display

Trace Window

Step Into

Step Over

Use the commands on the Try It menu to see how the piece you're building will appear to the user. One of Authorware's most useful features is that you can alternate between authoring and viewing your piece. Authorware also provides debugging tools to help you troubleshoot the piece.

## Help menu

Click a menu command for more information:

[Help](#)

[Help Pointer](#)

[About Authorware](#)

Use the commands on the Try It menu to see how the file you're building will appear to the user. One of Authorware's most useful features is that you can alternate between authoring and seeing how the file will look to the user. Authorware also provides debugging tools to help you to troubleshoot your file.



## **New File**

Choose New File to create a new untitled file. If a file is currently open, Authorware closes the file before creating a new one. You can save any changes you made to the open file.

## Open File

**Related topic:**     [Font Problem dialog box](#)

Choose Open File or Open to open existing Authorware files. If a file is currently open, Authorware closes it before opening another file. You can save any changes you made to the open file.

## Font Problem dialog box

If you try to open a file on a computer that doesn't have the file's fonts installed, or if the fonts have different dimensions, the Font Problem dialog box appears to alert you.

### List of problem fonts

Each line shows the name of the font that there's a problem with and the nature of the problem. If you want more information about the problem with a specific font that's listed, select the font.

### Problem description

Use this scrolling field to find out more about the problem and its implications.

### Reformat

Click Reformat to reformat all the text affected by the font problems. Reformatting adjusts line breaks if the length of a line of text changes. It also adjusts the boundaries of both the text object that contains the text and the display that contains the text object.

When you click Reformat, a progress bar appears if there are five or more icons with text that needs reformatting. Clicking Cancel displays the Cancellation dialog box.

- Clicking Stop in the Cancellation dialog box goes back to the progress bar and continues reformatting the text in the file.
- Clicking Cancel in the Cancellation dialog box stops the reformatting process. Any text that Authorware has already reformatted remains reformatted. You can complete the reformatting process by clicking the Font Mapping button in the File Setup dialog box to display the Font Mapping dialog box, and then clicking the Reformat button.

### Don't Reformat

Click Don't Reformat to ignore any changes to the layout of the text that are the result of substituting a font that's different from the original. Words or parts of words may be clipped off when the text is displayed.

### Options

Click Options to display the Options dialog box, which gives you control over the types of errors that cause the Font Problems dialog box to appear.

The options you select apply to the file and any libraries that are currently open and to any files or libraries that you create in the future. These are the options you can select:

- **Display Problem Dialog When Fonts Are Missing**--Select this option to display the Font Problem dialog box when Authorware opens a file that uses a font that's missing from the current computer.
- **Display Problem Dialog When Fonts Metrics Differ**--Select this option to display the Font Problem dialog box when Authorware opens a file that uses a font with dimensions that are different from the dimensions of the substitute font on the current computer.

Dimensions may differ if you've mapped a Windows font to a different Macintosh font or a Macintosh font to a different Windows font (for example, if you've mapped Windows System font to the Chicago font on the Macintosh or vice versa). Although the fonts serve similar functions on their respective

computers, they look completely different and the length of a line of text in one of the fonts is different from the length of the same line of text in the other font.

Dimensions may differ between Windows and Macintosh even if the font has the same name. For example, Windows Courier is different from Macintosh Courier.

Finally, dimensions may differ between two Windows computers or two Macintosh computers if one computer uses a TrueType version of a font while the other computer uses a bitmap version.

- **Perform Reformatting Automatically**--Select this option to have Authorware reformat text automatically when the font that the file was created with is either missing or of different dimensions. The option is available only when one of the other two options is not selected.

If you choose not to have Authorware reformat text automatically when you open a file, you can reformat it any time the file is open. First, click the Font Mapping button in the File Setup dialog box to display the Font Mapping dialog box, and then click the Reformat button.

### Font Mapping

Click Font Mapping to display the Font Mapping dialog box, in which you can define which fonts you want Authorware to substitute for the fonts you used when you created the file. (For more information, see [File Setup](#)) If you don't map fonts on one platform to specific fonts on the other platform, when Authorware encounters a missing font it substitutes a similar font on Windows or Geneva on the Macintosh.

## Import

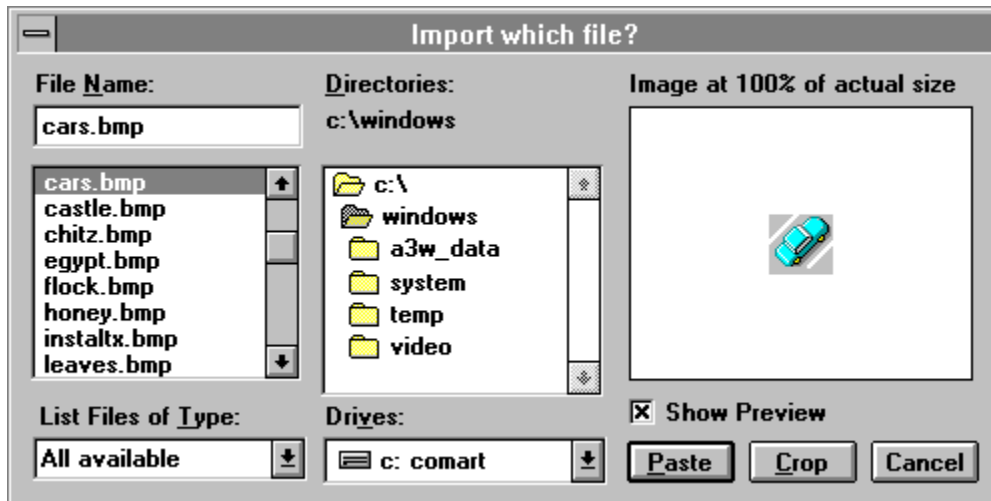
**Related topics:**    [Import dialog box](#)  
                          [Importing text](#)  
                          [RTF Import dialog box](#)  
                          [Importing graphics](#)

Choose Import to import text and graphics directly into display or interaction icons.

When you choose the Import command, the [Import dialog box](#) appears.

## Import dialog box

To import text or graphics into a display or interaction icon, open the presentation window for that icon and choose Import from the File menu to display the Import dialog box. Click a part of the dialog box for more information:



**Show Preview**  
**(Import dialog box)**

Select this option and click Create to see a thumbnail of the contents of the file.

## **Crop** **(Import dialog box)**

Click Crop to import only a part of the selected file. In the Crop Graphic dialog box, drag to select the portion of the graphic you want to import.



## Paste (Import dialog box)

Click Paste to paste a copy of the selected file into the icon's presentation window.

Graphics are imported into the center of the display. By default, bitmapped objects are set to Opaque mode when pasted. For more information about modes, see the [Modes](#) topic.

If you're importing text and a text object is selected, the imported text flows into that object. If no text object is selected, Authorware creates a new text object in the center of the display. If you saved the file as an RTF file, Authorware preserves most formatting information. For more information, see the [Importing text](#) topic.

If the source document includes page breaks, you can automatically create a new icon for each page. You can also determine whether text is imported into normal text objects or into scrolling text fields.

## Importing text

You can import text from most word-processing applications without losing formatting information such as character attributes, styles, and text indents. To keep formatting information, save the file in the Interchange format or rich text format (RTF) in the word-processing application.

You can import the following text formatting information:

- Character--Font, size, style, and color
- Paragraph--Margins, spacing, indents, justification, and tabs
- Style sheets--Named styles that consist of a combination of character attributes

The Cut and Copy commands also retain the formatting information, so that the text contains this information when you paste it.

You can't import formatting information for headers, footers, footnotes, tables, and columns, although the text itself is imported. If you're importing text from another Authorware piece, any library references from the original piece are lost.

There are two ways to import text into a display icon. The default is to center the imported text on the page. You can also use the text tool to create a text object and then drag the selection handles to size the text object. The imported text flows within these margins.

If the source document includes page breaks, you can automatically create a new icon for each page when you import the text. If you import multiple pages into a single icon, Authorware creates one text block for every 32K of text. You can also determine whether text is imported into normal text objects or into scrolling fields. For more information, see the [Scrolling Text](#) topic.

## RTF Import dialog box

When you import an RTF file, Authorware presents a dialog box that lets you select the following options.

### Hard Page Break

- **Ignore**--Select this option to ignore page breaks and to import all text into a single icon. Authorware creates one text block for every 32K of text.
- **Create New Display**--Select this option to create a new icon for each page.

### Text Object

- **Standard**--Select this option to use the imported text to create a normal text object.
- **Scrolling**--Select this option to use the imported text to create a scrolling field. This option is useful for displaying large amounts of text. For more information, see the [Scrolling Text](#) topic.

Immediately after pasting you can use the selection handles to move the imported text or graphics, using either the pointer tool or the arrow keys.

## Importing graphics

You can import graphics with supported file types that were created in other applications. Macintosh MacPaint files (file extension .PNT) are no longer supported.

Authorware supports the following graphic file types for Windows computers:

- Encapsulated PostScript files (.EPS)
- Windows Metafile files (.WMF)
- Paintbrush files (.PCX)
- TIFF files (.TIF)
- Windows and OS/2 bitmapped graphic files (.BMP, .DIB, and .RLE).

Authorware supports both object-oriented and bitmapped graphics. You can mix them freely, regardless of their source, and edit them in the presentation window. You can edit object-oriented graphics individually, as well as enlarge and reduce groups of objects or the whole graphic. However, enlarging and reducing bitmapped graphics tends to distort them.

The Authorware installer program installs graphics filters (with file extension .IMP) in the same folder as the A3W2.EXE file. If these filters are missing, you will not be able to import graphics into an Authorware file. You can reinstall the filters with the installer program.

## Close

Choose Close to close the current file. Authorware prompts you to save changes.

The command changes to **Close Library** when a library window is active.

## Save

Choose Save to save your changes and to perform an integrity check of the file. If you're working on a new piece that hasn't been saved yet, Authorware prompts you to name the file and select its folder location. The command changes to **Save Library** when a library window is active.

Remember to save your work often.

## Save As

Choose Save As to copy the entire file, including any changes you made, into a new file you create under a different name. The original file remains unchanged since the last time you saved and is automatically closed. The new file you just created is open and includes your most recent changes.

The command changes to **Save Library As** when a library window is active, so you can save the library under a new name.

When you use the Save As command Authorware removes unused space in the file, resulting in a file that uses less disk space.

## **Save and Compact**

Choose Save and Compact to produce smaller and more efficient files. This command rewrites the file's entire contents to reclaim any free space that may have accumulated while you worked with the file. This command also rearranges data to provide faster access, which is especially useful for digital movies and video clips.

Saving with this command takes longer than using the Save command, especially for large files. When you package a piece, Authorware automatically performs the operations associated with this command.



## **File Setup**

Choose File Setup to define the settings that apply to the entire file, including the file title, the wait button label, the presentation window options, and the restart and resume options.

Click a part of the dialog box for more information:


**File Setup**


File: 12K in 0 icons, 0 vars      Memory: 42,239K

Title:


Font Mapping...    Palette...

Content Search Path:


Path Type: DOS (Drive Based) 

Naming: DOS (8.3) 

When User Returns  
☐ Resume    ☒ Restart at Beginning



Return Transition:  
None 

**Presentation Window**

Size: VGA (640x480) 



☐ Center on Screen

Display: ☒ Title Bar    ☐ Task Bar  
☒ Menu Bar    ☐ Overlay Menu

Colors: Background...  Chroma Key... 

☐ Match Window Color  
☐ Standard Appearance at Runtime  
☐ Windows 3.1 Metrics

**Wait Button**

Type:  

Label: Continue

OK    Cancel

## **File**

### **(File Setup dialog box)**

Authorware displays the amount of disk space the file takes up, as well as the number of icons and variables in the file.

## **Memory**

### **(File Setup dialog box)**

Authorware displays the amount of free memory (RAM, or RAM and virtual memory on Windows computers running in enhanced mode).

## Title (File Setup dialog box)

In this field you enter the title of the file. This title is displayed in your packaged file unless you deselect the Title Bar option.

The default title is the filename without the extension. You can specify a new title by typing it in the field. Changing the title does not change the filename.

**Tip:** The title you enter is automatically stored in the system variable `FileTitle`. You can use this variable to display the title at any location in the file. For more information, see "FileTitle" in *Authorware Reference*.

## Font Mapping (File Setup dialog box)

Click Font Mapping to display the Font Mapping dialog box.

The left column of the dialog box shows all the fonts that the file uses. If you open a Windows file on a Macintosh computer, the right column lists a substitute Macintosh font for each of the Windows fonts. You can use either the suggested font or another font that's installed on the computer.

If you open a Windows file on a Windows computer, the right column is blank. However, you can use the dialog box to identify a substitute for a font that's used in the file but that may not be installed on all Windows computers.

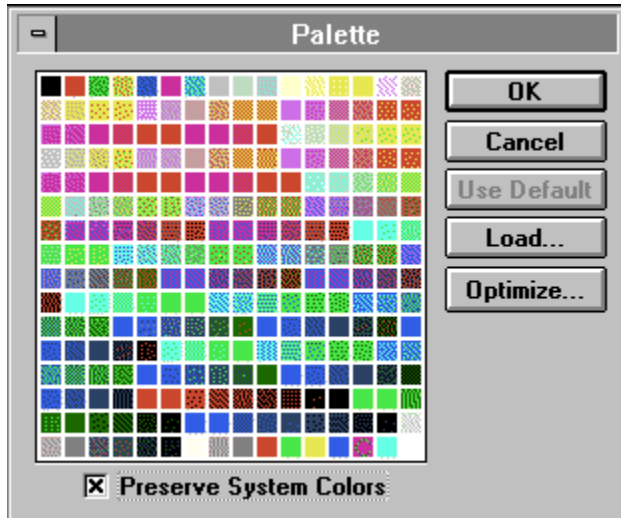
These are the options and buttons that appear in the dialog box:

- **Current Font**--This list shows all fonts installed on the current computer. From this list you can select a font to replace the font selected in the left column. Note, however, that you cannot specify equivalent sizes because each platform matches sizes automatically, based on the closest matching character height.
- **Macintosh Font**--In this field type the name of the Macintosh font that you want Authorware to substitute for the current Windows font when it converts the file to run on the Macintosh.
- **Font Description**--This message provides further information about the cross-platform capabilities of the font selected in the left column. Use this information to determine how to proceed. If there's no problem, no information appears in this field.
- **Reformat**--Click Reformat to reformat any text that Authorware has had to map to a different font. Reformatting adjusts line breaks if the length of a line of text changes. It also adjusts the boundaries of both the text object that contains the text and the display that contains the text object. For more information see the [Font Problem dialog box](#) topic.
- **Options**--Clicking Options displays the Options dialog box, which gives you control over the types of errors that cause the [Font Problem dialog box](#) to appear.

## Palette (File Setup dialog box)

Click Palette to display the Palette dialog box, in which you can select the VGA palette that appears when you display the Background palette or the Chroma Key palette, or when you choose Color from the Attributes menu.

Click a part of the dialog box for more information:



## **Use Default (Palette dialog box)**

Click Use Default if you have loaded a custom color palette and you want to restore the default color palette.



## **Load** **(Palette dialog box)**

Click Load to display the standard file-selection dialog box and then select the file that contains the palette you want. Using a custom palette slows down performance if your file already contains graphics, because Authorware must map the existing colors to the colors in the new palette. To improve performance, use the Optimize option.

## Optimize (Palette dialog box)

Click Optimize to improve performance if your file contains existing graphics and you have loaded a custom palette. You can also define whether the custom palette applies to library files.

### Optimize Library Icons

Select this option to use the custom color palette in library files.

- **All Icons**--Select this option to use the custom color palette for all library icons.
- **Linked Icons Only**--Select this option to use the custom color palette only in library icons that are linked to the current file.

## **Preserve System Colors (Palette dialog box)**

Select this option to ensure that all Windows icons, title bars, window borders, and objects in the background maintain their colors. Authorware does this by retaining the Windows System colors, which are the first 10 and the last 10 colors in a palette.

## Content Search Path (File Setup dialog box)

In this field, enter the location where you store the external files that Authorware needs when running the piece.

Authorware pieces can use content and digital movies from external library and digital movie files. When you link a piece to a library or when you load a digital movie, Authorware remembers the location of the external file and looks there first when it later tries to use the file. When you package a piece, Authorware uses the information in the Content Search Path field to determine where to look for libraries, digital movies, and other externally stored content.

Use semicolons to separate multiple search paths. Don't use extra spaces between entries. For example, if you want Authorware to search for external files at the main level of drive C and then search in the Graphic folder in the A3W directory of drive D, you would set up the search path like this:

```
C:\;D:\A3W\Graphic
```

In addition to looking for external files in their original location and in directories specified in the Content Search Path field, Authorware always looks in the directory that contains the Authorware application. For more information, see the description of the `SearchPath` variable in *Authorware Reference*.

## Path Type (Windows) (File Setup dialog box)

Select the type of network path that you want system functions and variables to return. Select either DOS (Drive Based) or Universal Naming Convention (UNC), depending on the type of network your piece will run on. If users will run your piece only on networks that recognize UNC pathnames (for example, running Windows NT), choose UNC. This more flexible naming standard allows you to identify a server by name without worrying about a drive letter assignment. On the other hand, if users *might* run your piece on a network that doesn't recognize UNC, select DOS (Drive Based).

The Path Type setting and `PathType` system variable are only relevant in the 32-bit version of Authorware running under Windows 95 or Windows NT. In the 16-bit version of Authorware, variables or functions that return pathnames always return drive-based pathnames no matter what setting you select. On the Macintosh, these variables and functions always return pathnames formatted for the Macintosh.

No system functions are affected by the Path Type setting and `PathType` variable. Three system variables are affected: `FileLocation`, `OrigWorkingDirectory`, and `RecordsLocation`.

## Naming (Windows) (File Setup dialog box)

Select the filename format that you want system functions and variables to return: DOS (8.3), which allows 8 characters plus a 3-character extension, or Long Filenames, which allows 255-character filenames. If users will run your piece only in Windows 95 and Windows NT, you can select Long Filenames. If users will run your piece in Windows 3.1--or you're unsure--it's a good idea to stick with standard DOS naming.

The Naming setting and `FileNameType` variable are only relevant in the 32-bit version of Authorware running under Windows 95 or Windows NT. In the 16-bit version of Authorware, variables or functions that return filenames always return DOS 8.3 filenames no matter what setting you select. On the Macintosh, these variables and functions always return filenames formatted for the Macintosh.

One system variable is affected by the Naming setting and `FileNameType` variable: `FileName`. One system function is affected: `Catalog`.

## Wait Button (File Setup dialog box)

Use these options to change the label on the wait button, to edit the button type, or to replace the button with another button.

- **Label**--In this field, enter the label that will appear on wait buttons throughout the piece. The default label is Continue.

To use a wait button, select the Show Button option in the Wait Options dialog box or in the Interaction Options dialog box. When you run the piece, Authorware displays a button with the specified label when it encounters the icon. The button is automatically sized to accommodate the label you entered.

- **Set**--Click Set to display the Button Library dialog box. You can use the Button Editor dialog box to modify the existing button, to paste another button, or to create a button. For more information, see the Buttons responses topic.

## Size (File Setup dialog box)

Use the Size options to set up the size of the presentation window. It's important to author using the presentation window size that works best on the smallest monitor on which your piece may be run.

- **Variable**--Select this option to size and move the presentation window freely. To resize the window, choose Run from the Try It menu and drag any corner of the presentation window to the desired position. Once you change the presentation window size, it remains at that size until you change it again.
- **VGA through Mac 9"**--Select one of these options to set up fixed presentation window sizes. The numbers (such as 640x480) refer to the number of pixels used by the presentation window. The Mac 9" option is used in some pieces created on the Macintosh.
- **Use Full Screen**--Select this option to expand the presentation window to the full size of the current monitor. When you work on the piece or when it is run, the window will use the full screen of whatever monitor you're using. Screens larger than the current screen expand to the right and down.

If you switch from a large screen to a smaller screen while the Use Full Screen option is selected, parts of the text and graphics you created on a larger screen may not appear. In particular, objects that extend beyond the standard right and bottom screen edges are cut off. This effect occurs if users run the piece on smaller monitors.



**Center**  
**(File Setup dialog box)**

Select this option to display the presentation window in the center of the screen, regardless of the size of the monitor.

## User Menu Bar (File Setup dialog box)

By default, Authorware displays a user menu bar at the top of the presentation window. The default menu bar contains a File menu with a Quit command. You can choose not to display a user menu bar by deselecting the User Menu Bar option.

Keep in mind, however, that if you don't display the File menu and the Quit command, you need to provide another way for users to quit. Users can always quit by pressing Control-Q; just be sure to display instructions to do so. Also, any custom pull-down menus that you create with the interaction icon and pull-down menu result icons don't show up if you deselect the User Menu Bar option.

You can use the `ShowMenuBar` function to override the User Menu Bar setting. For more information on this function, see "ShowMenuBar" in *Authorware Reference*.

## Task Bar (File Setup dialog box)

Under certain conditions, Authorware lets you control whether the Windows 95 task bar will appear on a user's screen overlapping your Authorware piece.

Users can display a task bar containing buttons that make it easy to switch between open applications. The task bar's default position is along the bottom of the screen, but it can be placed at the top or along either side.

A potential conflict arises when your Authorware piece has dimensions that are the same or greater than a user's monitor--for example, when your presentation window size and the user's monitor are both set to 640x480. If the user's task bar is turned on, it could cover up part of the Authorware screen, possibly hiding navigation buttons along one edge.

Because of these conflicts, the Authorware default is to hide the user's task bar if it would overlap the presentation window. But if you want to make the task bar visible, select Task Bar in the File Setup dialog box.

This situation is not as simple as it may seem. Keep in mind that:

- Only the 32-bit version of RunA3W (RUNA3W32.EXE) allows control over a user's task bar.
- You cannot make the task bar visible without also making the Authorware title bar visible. If you haven't already selected Title Bar in the File Setup dialog box, when you select Task Bar, Authorware selects Title Bar for you.
- You cannot make the task bar visible unless the user has turned off Auto Hide and turned on Always on Top--in other words, unless the user's settings force the task bar to be visible in most situations.
- If the presentation window is *smaller* than a user's screen resolution, you have no control over whether the task bar is visible. It depends on the user's settings.

Another way to display the task bar when it overlaps the presentation window is by using the `ShowTaskBar` function.

## Overlay Menu Bar (File Setup dialog box)

When you select this option, the menu bar overlaps the top of the presentation window. When you deselect this option, the menu bar appears above the presentation window.

**Note:** The Overlay Menu Bar option affects the `ShowMenuBar` and `ResizeWindow` system functions. For more information, see "ShowMenuBar" and "ResizeWindow" in *Authorware Reference*.

## **Title Bar**

### **(File Setup dialog box)**

If the presentation window is as large as or larger than the screen, you can use the Title Bar option to turn the title bar on or off. If the presentation window is smaller than the screen, it will always have a title bar.

## **Background Color** **(File Setup dialog box)**

The default background for the presentation window is white. To select another color, click the Background Color button to display a color palette and then click the color you want. The selected color appears in the color chip next to the button.

## **Chroma Key**

### **(File Setup dialog box)**

Use this option if you're using a video overlay card and the card supports a chroma key color. In that case, video is displayed on the screen wherever the chroma-key-colored object is placed. Click the Chroma Key button to display a color palette and then click the color you want. The selected color appears in the color chip next to the button.

The chroma key color is identified in all color palettes with the letter C, in the inverse of the color. The default chroma key color is magenta. Some video overlay cards work with limited chroma key colors:

- The IBM M-Motion overlay card only works with a magenta chroma key.
- The VideoLogic DVA 4000 overlay card allows chroma keying only with the first 64 colors on the palette. So on a system with 256 colors, the default chroma color, magenta, is out of range.

## **Match Window Color (File Setup dialog box)**

Users can choose their own window color for applications. The Window setting is found in Display settings in the Control Panel, under Appearance, and the default is white. If you want your Authorware piece to adopt the user's choice for window color, select Match Window Color. Selecting this checkbox overrides your Background color choice.

The issue is how much you want your piece to look like users' other Windows 95 applications, even when they pick a non-standard background color. The risk is that a user's color choice may weaken the effectiveness or aesthetics of your piece. For example, a garish background color might clash with your graphics or distract the user from the content.



## **Standard Appearance at Runtime (File Setup dialog box)**

Users can choose their own color for 3D objects such as buttons under Appearance in the Control Panel. The default is gray. If you want the buttons and other 3D objects in your Authorware piece to adopt the user's color choice, select Standard Appearance at Runtime.

The issues are like those for Match Window Color. For example, if a user has chosen red for 3D objects and your piece adopts the user's choice, the buttons in your piece would be red--which might clash with some of your images and distract the user from the content.

## Windows 3.1 Metrics (Windows) (File Setup dialog box)

The sizes of a window's menu bar, title bar, and borders are different in Windows 3.1 and Windows 95. The practical consequence of the difference is that if you author on a Windows 95 computer, what looks good to you may not look good to someone who runs your piece on a Windows 3.1 computer. For example, if there's a graphic at the very top of the presentation window and the Overlay Menu option is on, the menu bar will overlap the graphic by a pixel on a Windows 3.1 computer. If there's a graphic at the very bottom of the presentation window and the Overlay Menu option is off, an extra row of pixels will appear at the bottom of the presentation window on Windows 3.1 computers.

The best approach for getting around the problem is to design graphics so that they're away from the edges of the presentation window. Remember that in Windows 95, users can change the size of the menu bar. So, don't count on menu bars being a uniform size even on Windows 95 computers.

If its not possible to design the graphics in a piece to get around the problem, use the Window 3.1 Metrics option to make sure that graphics look the same on both Windows 3.1 and Windows 95 computers. There are a couple of important things to keep in mind if you decide to use the Windows 3.1 Metrics option:

- Whenever you or a user opens the file that has the Windows 3.1 Metrics option turned on, it changes the metrics of every window in every application to match the metrics used in Windows 3.1.
- The Windows 3.1 Metrics option may not be available in future releases of Authorware.

## When User Returns (File Setup dialog box)

Use these options to specify whether users return to the beginning of a piece or to the place where they left off.

- **Restart at Beginning** (default)--Select this option to restart the piece at the beginning. When Authorware restarts, it resets the values of all custom and system variables to their initial values.
- **Resume**--Select this option to restart exactly where the user quit. Authorware keeps track of the user's location in the piece and of the values of all variables, and stores this information in a user records file. Authorware creates a user records file for every Authorware piece and assigns it the filename of the piece plus the file extension .REC. The file is stored in the A3W\_DATA directory in the Windows directory.

**Tip:** You can also use the system variable `Resume` to control where the user returns to a piece. The `Restart` and `QuitRestart` system functions provide additional options for restarting the presentation from the beginning of the piece. For more information, see "Restart" and "QuitRestart" in *Authorware Reference*.

## **Return Transition** **(File Setup dialog box)**

From this dialog you can select a transition that is displayed when the user returns to the piece. For more information, see the [Transition](#) topic

## Navigation Setup

Choose Navigation Setup to define how the Find Word and Recent Pages dialog boxes look. Click a part of the dialog box for more information:

**Navigation Setup**

**Navigate Icons Set to Search**

Window Title: Find

Word Prompt: Word:

List Heading: Page:

Find Button: Find

Go To Button: Go to Page

Cancel Button: Cancel

Pause/Resume Button: Pause Resume

☒ Highlight Found Words

**Navigate Icons Set to Recent**

Window: Recent Pages

Maximum Pages to List: 999

☐ Close When Page Is Selected

Words to Ignore... File not Loaded

OK Cancel

The Find Word dialog box lets users enter a word, search for the pages that contain the word, and then go to any of the pages where Authorware found the word. When the default settings are in effect in the Navigation Setup dialog box, the Find Word dialog box looks like this:

The Recent Pages dialog box lets users backtrack to pages they've already seen. When the default settings are in effect in the Navigation Setup dialog box, the Recent Pages dialog box looks like this:

For information about the navigate icons you use to display the Find Word and Recent pages dialog boxes, see the [Navigate icon](#) topic. For instructions about setting up the navigate icons, see "Allowing users to search for a page" and "Allowing users to backtrack" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

## Navigate Icons Set to Search (Navigation Setup dialog box)

Use the fields in this area to enter different window titles and different labels for prompts and buttons.

- **Window Title**--Enter a new title for the Find dialog box that appears to users.
- **Word Prompt**--Enter a new title for the prompt.
- **List Heading**--Enter a new heading for the list of pages Authorware finds.
- **Find Button**--Enter a new label for the button that starts the user search.
- **Go To Button**--Enter a new label for the button that goes to the selected page.
- **Cancel Button**--Enter a new label for the Cancel button.
- **Pause/Resume Button**--Enter new labels for the Pause and Resume buttons.

## Navigate Icons Set to Recent (Navigation Setup dialog box)

You can set up the following options for the Recent Page dialog box:

- **Window Title**--You can enter a new title for the Recent Page dialog box that appears to users.
- **Maximum pages to list**--You can change the maximum number of pages displayed in the Recent Page dialog box.

## Words to Ignore (Navigation Setup dialog box)

Click Words to Ignore to load a file that contains a list of words you want Authorware to ignore if the user enters them in the Find dialog box.

Authorware displays the standard file-selection dialog box, from which you can select the file that contains the list of words that you want to ignore. To set up the file, create an ASCII file, with each word on a separate line. Authorware does not ignore keywords attached to icons, even if you enter them into this list.

If the file is already set up and loaded, its name and path information appear beside the Words to Ignore button. If "File Not Loaded" appears next to the Words to Ignore button, you must load a file if you want to use this feature.

**Note:** This file is not packaged with the piece; be sure to put it in the same folder as the piece so that Authorware can find it.



### **Highlight Found Words (Navigation Setup dialog box)**

Select this option to highlight the found word when the user goes to a page. Click the color chip to display a palette from which you can select the highlight color.

### **Close When Page Selected (Navigation Setup dialog box)**

Select this option to close the Find dialog box or the Recent Page dialog box when the user selects and goes to a page.

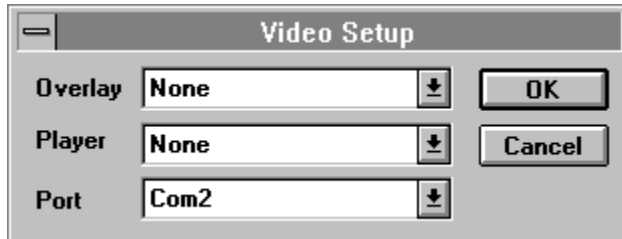
## Video Setup

Choose Video Setup to display the Video Setup dialog box, in which you can select video hardware options.

## Video Setup dialog box

Choose Video Setup to display the Video Setup dialog box, in which you can select video hardware options. If you don't select these options, or if your selections don't match the hardware configuration, the system displays an error message when you (or the user) try to run a piece that contains a video icon. At that point you (or the user) can specify the video configuration

Click a part of the dialog box for more information:



## Overlay (Video Setup dialog box)

To play video on the computer screen, you usually need to install a video overlay card and then select the corresponding card from the Overlay drop-down list or pop-up menu. If you plan to display video on an external monitor connected directly to the video player, you don't need an overlay card.

Cards appear in the list only if Authorware driver files are present in the folder that contains the Authorware executable. You can reinstall these drivers by using the Authorware Installer. Authorware supports several overlay cards. For a complete list of supported players, the related overlay cards and drivers, and how they appear in the list, see the appendix "Video Device Support" in *Authorware Reference*.

Also, be sure that you have installed the video overlay card software. Video overlay cards vary greatly in their capabilities. For a description of those capabilities, contact the card manufacturer.

Video overlay cards use a chroma-key color, so that video shows through in regions where the chroma-key-colored object is placed on the screen.

## Player (Video Setup dialog box)

From this drop-down list or pop-up menu, select your player. Authorware supports several players for both the Macintosh and for Windows computers, including players that use the CLV format. For a complete list of supported players, the related overlay cards and drivers, and how they appear in the list, see the appendix "Video Device Support" in *Authorware Reference*.

Players appear in the list only if Authorware driver files are present in the folder that contains the Authorware executable. You can reinstall these drivers by using the Authorware Installer.

Authorware supports some CLV (constant linear velocity) devices as well as CAV (constant angular velocity) devices. A CAV device, such as a record player, rotates at a constant speed, which means that the outside tracks must hold the same amount of data as the inner tracks. By adjusting the motor speed to compensate for the head position, CLV devices make it possible to store the maximum amount of data on each track, which greatly increases storage capabilities. However, random access is much more difficult at variable motor speeds, resulting in slower access times. In general, CLV devices work best with continuous audio or video tracks.

## **Port**

### **(Video Setup dialog box)**

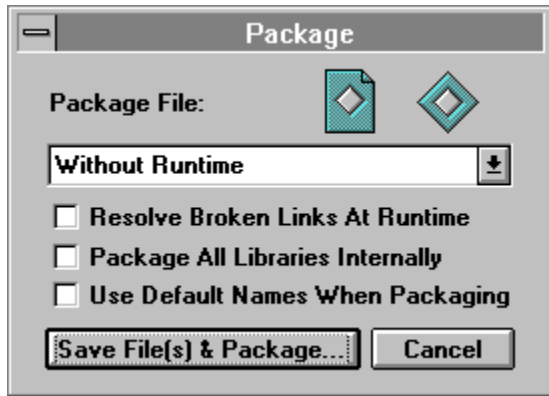
Select the port on your computer to which the video player is connected.

If you don't select the correct video options, or if you don't connect the hardware properly, Authorware displays a message when it encounters a video icon while running the piece or while you're editing video icon options. The user sees a similar message if the video player is not properly connected to the computer.

## Package/Package Library

Choose Package to display the Package Options dialog box, in which you can set up the options for creating a finished version of your piece by packaging it. The command changes to Package Library when a library window is active.

Click a part of the dialog box for more information:



Packaging a piece is a two-step process--first you package the piece and then you package any libraries that are linked to the piece. If those libraries were already packaged, you don't have to repackage them each time you repackage the piece. This feature is very useful for large, shared libraries.

For more information about packaging, see "Packaging an Authorware piece" in Chapter 10, "Distributing a Piece," in *Using Authorware*.



## Package File (Package dialog box)

- **Without Runtime**--Select this option if you know your users have access to the RunA3W application.
- **For Windows 3.1**--Select this option to embed the RunA3W software in the Authorware file to create a stand-alone piece which can run on Windows 3.1, Windows 95, or Windows NT computers. Users who don't have the RunA3W application can run the piece.
- **For Windows 95 and NT**--Select this option to embed the RunA3W software in the Authorware file to create a stand-alone piece which can run on Windows 95 or Windows NT computers, but not on Windows 3.1 computers. Users who dont have the RunA3W application can run the piece.

## **Resolve Broken Links at Runtime (Package dialog box)**

Broken links are references to icons whose icon IDs have changed, typically because the icon was cut and later pasted again. As long as the icon type and the link name have not changed, Authorware can relink such icons.

If you select this option, Authorware automatically reconnects broken links when the user runs the piece, so that all content is displayed correctly. This process takes a second or so; the more icons there are in the libraries linked to a piece, the longer it takes.

If you deselect this option, Authorware does not check for broken links, so there's no wait. Deselect this option only when you know that no changes were made to packaged libraries since the piece was packaged. If this option is deselected and there are broken links, Authorware does not display the contents of the affected icons; otherwise the piece runs normally.

### **Package All Libraries Internally (Package dialog box)**

Select this option to package any library icons linked to the piece as part of the piece; then, you don't have to package each library separately. Instead, Authorware copies a single copy of any linked icons into the piece. Using this option can make distribution and installation easier and it may improve performance; however, it also increases the file size.

## **Use Default Names When Packaging (Package dialog box)**

Select this option to automatically create a name for the packaged piece by using the filename and adding the extension .APP. For libraries, the extension is .APR.

If you don't select this option, Authorware displays a dialog box that prompts you for a filename. After displaying the packaging options for libraries, Authorware prompts you for the library names.

## **Save File(s) & Package (Package dialog box)**

Click this button to start the packaging process. How the process proceeds depends on how you set two of the other options in this dialog box.

If you selected the Use Default Names When Packaging option, Authorware automatically uses the filename and adds the extension .APP for a Windows file, .APR for any Windows libraries, and .pkg for both the Macintosh file and for Macintosh libraries.

Unless you selected the Package All Libraries Internally option, Authorware packages each of the libraries separately. A dialog box appears for each unpackaged library that contains the options for packaging it. For example, if your piece references three libraries, Authorware displays the following dialog box three times, so you can set up the packaging options for each library.

## Package Library

### Package Library *name*

- **Internal to Piece**--Select this option to package the library as part of the Authorware piece that is linked to the library. This option has the same result for a particular library as choosing the Package All Libraries Internally option has for all libraries.
- **In Separate Package**--Select this option to package the library file separately from the Authorware piece.

### Referenced Icons Only

Select this option to package only those icons that are linked to the current piece.

### Use Default Name

Select this option to automatically create a name for the packaged library file by using the filename and adding the extension .APR for Windows or .pgh for the Macintosh. If you don't select this option a file-selection dialog box appears, in which you can select a packaged library file.

### Package

The first time you package a library file, click the Package button to create a packaged library. Authorware prompts you for a name. Thereafter, click the Package button only when you want to repackage the piece. Otherwise, simply select the packaged library file in the file-selection dialog box.

## Package Library

Choose Package Library to package a library. This command is displayed automatically when a library file is selected.

Click a part of the dialog box for more information:



**Referenced Icons Only**  
**(Package Libraries dialog box)**

Select this option to package only those icons that are linked to the current piece.



### **Use Default Name (Package Libraries dialog box)**

Select this option to automatically create a name for the packaged library file by using the filename and adding the extension .APR. If you don't select this option a file-selection dialog box appears, in which you can select the packaged library file.

**Save File & Package**  
**(Package Libraries dialog box)**

Click this button to create a packaged library. Authorware prompts you for a name.

## Page Setup

Choose Page Setup to display a dialog box from which you can select standard Windows printer and page formatting options for printing your piece.

## Print

Choose Print to display a dialog box from which you can print all or portions of your piece. You can also print a variety of information about the piece. When you select a library window, the command becomes **Print Library**.

Click a part of the Print dialog box for more information:

The screenshot shows a classic Mac OS-style dialog box titled "Print to: Apple LaserWriter II NTX on LPT1:". The dialog has a double-line border. Inside, the "Copies:" field is set to "1". The "Pages:" section has three radio buttons: "All" (selected), "From:", and "To:", each followed by an empty text box. Below this, the "Print File:" is labeled "earthsky.apw". A section titled "Print Options" is enclosed in a box and contains several checked and unchecked options: "Design Windows" (checked), "Icon Options" (checked), "Index" (checked), "Cross-reference Custom Variables" (unchecked), "Display Text and Graphics" (checked), "Crop" (selected radio button), "Full Size" (unchecked radio button), "Include Thumbnails" (unchecked), "Print as Screen Image" (checked), and "First Movie Frame Only" (checked). At the bottom left, there is a checked option "For Selected Icons Only". At the bottom right are "OK" and "Cancel" buttons.

Print to: **Apple LaserWriter II NTX on LPT1:**

Copies:

Pages: ☒ All ☐ From:  To:

Print File: earthsky.apw

**Print Options**

<input checked="" type="checkbox"/> Design Windows	<input checked="" type="checkbox"/> Display Text and Graphics
<input checked="" type="checkbox"/> Icon Options	<input checked="" type="radio"/> Crop <input type="radio"/> Full Size
<input checked="" type="checkbox"/> Index	<input type="checkbox"/> Include Thumbnails
<input type="checkbox"/> Cross-reference Custom Variables	<input checked="" type="checkbox"/> Print as Screen Image
	<input checked="" type="checkbox"/> First Movie Frame Only

☒ For Selected Icons Only

**For Selected Icons Only**  
**(Print dialog box)**

Select this option to print only selected icons instead of the entire flowline.

## **Design Windows**

### **(Print dialog box)**

Select this option to print the main flowline and all map icon flowlines as they appear on the screen.

## **Icon Options** **(Print dialog box)**

Select this option to print the options you set up for each icon in the piece.

## **Index**

### **(Print dialog box)**

Select this option to print a list of each icon in the piece, including the icon title and its page number in the printout.



## Display Text and Graphics (Print dialog box)

Select this option to print text and graphics contained in the piece. You can *either* crop the graphics or print them full size.

- **Crop**--Select this option to economize on space by trimming extra white space surrounding the graphics in each display. When you select Crop, the Include Thumbnails option becomes available. This option prints a small presentation window for each display to show where the graphics are positioned on the screen.
- **Full Size**--Select this option to print each display at the size it appears in the presentation window. If your monitor displays images larger than can be printed on the paper size you have selected, the image is reduced to fit. This option uses a lot of paper; use it with For Selected Icons Only to print only a specific display.
- **Include Thumbnails**--Use this option with the Crop option to print a small presentation window for each display, to show where the graphics are positioned on the screen.

**Print as Screen Image**  
**(Print dialog box)**

Select this option to print digital movies and displays exactly as they appear on the screen. When this option is not selected, digital movies and displays are plotted directly to the printer, which is usually faster. However, their appearance may not match the screen image because the printer may use different fonts.

**First Movie Frame Only**  
**(Print dialog box)**

Select this option to print only the first movie frame rather than all the frames included in the digital movie icon.

## **Cross-reference Custom Variables** **(Print dialog box)**

Select this option to print a summary of the custom variables the piece contains. Authorware prints the variable description and initial value, as well as a list of each icon in which the variable is used.

## **Print Screen**

Choose Print Screen to print a single copy of whatever is currently displayed on the screen.

## Send

To send an Authorware file or library using e-mail, choose Send from the File menu. The active window determines which file is sent. Follow the instructions in the dialog boxes that follow.

You can send Authorware files and libraries as attachments to mail messages from within Authorware. For this to work, you and the recipient both need e-mail that complies with the Messaging Application Programming Interface (MAPI).

## Exit

Choose Exit to close Authorware and the current Authorware file.

## Undo

Choose Undo to reverse your last operation.



## Cut

Choose Cut to remove the selected item and put it on the clipboard. The selected item can be one or more icons on the flowline or one or more objects you select when editing a display or interaction icon.

## Copy

Choose Copy to make a copy of the selected item and put it on the clipboard. The selected item can be one or more icons on the flowline or one or more objects you select in the presentation window.

Authorware supports copying text with formatting information (RTF text), such as character styles, paragraph information, and style sheets. However, formats for headers, footers, footnotes, tables, and columns cannot be copied.

## Paste

Choose Paste to insert a copy of the contents of the clipboard at the cursor location. You can paste this item as many times as you want; however, once you copy or cut another object, that object replaces the previous object on the clipboard. Authorware supports copying and pasting text with formatting information (RTF text), such as character styles, paragraph information, and style sheets. However, formats for headers, footers, footnotes, tables, and columns cannot be copied and pasted.

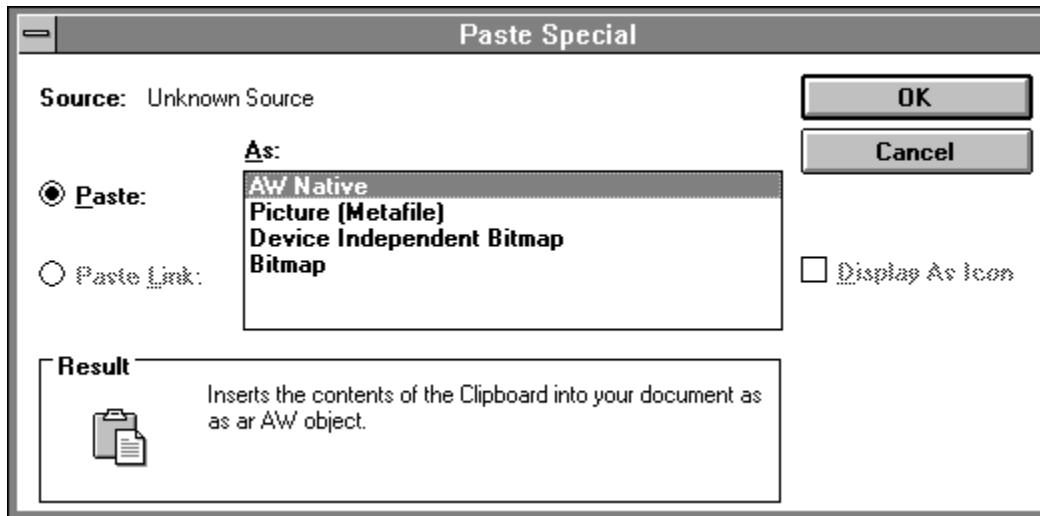
To position objects in a display or interaction icon, first click in the center of the area in the presentation window where you want the objects to appear. When you paste, the objects are centered on the point where you click. The objects are automatically selected so you can move or edit them. To paste icons at a specific location on the flowline, click where you want them to be pasted. A paste hand appears, indicating where the icons will be pasted.

You can use the clipboard to copy and paste an object from another application (OLE object) into your Authorware piece, creating an embedded object. Use the Paste Special command to copy an OLE object. You can distinguish OLE objects from toolbox objects by the appearance of their handles.

You can also create OLE objects with the Insert Object command.

## Paste Special

Choose Paste Special to display a dialog box that gives you more control than the Paste command over the format applied to the clipboard contents that are pasted into a piece. Click an option in the dialog box for more information:



Typical formats include Native, OLE Object, Picture (Metafile), and Bitmap. When you use Paste Special, you select which format is applied to the pasted object.

This command is particularly useful when you are linking or embedding OLE objects, although you can use it for any objects you paste. You can also choose to display the pasted OLE object as an icon. For more information about OLE objects, see the [Insert Object](#) topic.

## **Paste**

### **(Paste Special dialog box)**

Select this option to copy the object into the current display, at the insertion point, using the format selected in the As list box. The pasted object becomes a part of the piece. If the object is an OLE object, this option creates an embedded object. If you later change the object in the original file, that change does not affect the object in the Authorware piece, or vice versa. However, you can edit embedded objects from within Authorware, using the interface of the application that created the object.

**Paste Link**  
**(Paste Special dialog box)**

Select this option to create a linked OLE object, using the format you selected in the As list box. If you change the object in the original file, the linked object in your Authorware piece is updated. When you open a linked file for editing, Authorware automatically opens the original application.

## **Result**

### **(Paste Special dialog box)**

The Result area describes what kind of object you create by pasting, depending on whether you selected the Paste or the Paste Link options and on the paste format you selected from the As list.

## **Display As Icon** **(Paste Special dialog box)**

Select this option to display the pasted OLE object as an icon, which can play a sound or display information when the user clicks it. For more information about how to define such interactivity, see the [Object submenu](#) topic.

Selecting the Display As Icon checkbox creates the icon of the object's source application and displays the Change Icon button. To change the icon, click the [Change Icon button](#) and use the Windows Icon browser to select a different icon.



## Change Icon (Paste Special dialog box)

Click Change Icon to display the Change Icon dialog box in which you can select another icon for the selected OLE object. You can also create and use your own icons.

**Note:** This button appears only if you select the Display As Icon option.

The Change Icon options include the following:

- **Current** (the default)--Displays either the default icon (as defined by the source application) or whatever icon you assigned previously.
- **Default**--Select this option to change the icon back to the default icon.
- **From File**--Select this option to display the icons available in another file.
- **Label**--In this field you can change the label that appears with the icon. The default label is usually the name of the application in which the object was created.

### Browse

Click Browse to display the standard file-selection dialog box and locate the file that contains the icon you want to use.

## Clear

Choose Clear to remove the selected item from the display. Unlike Cut, Clear does not put the item on the clipboard. You can also use the Delete key to remove items from the display.

## Show Clipboard (Mac)

Choose Show Clipboard to display the contents of the clipboard--the last item you cut or copied.

## Group

Choose Group to either group icons selected on the flowline or to group objects selected in a display.

Icons to be grouped must be next to each other on the flowline. Grouping icons places them inside a map icon. By using map icons, you can maintain an overview of your piece. For more information about the map icon, see the [map icon](#) topic.

Grouping objects creates a single object that you can move or format.

## Ungroup

Choose Ungroup to either take a set of icons out of the selected map icon or to break up the selected object into its component objects (if it's composed of different objects).

If you attach a calculation to a map icon and then choose Ungroup, Authorware attaches the calculation to the first icon in the map.

## Select All

Choose Select All to select all the icons on the flowline or all the objects in a display.

## Insert Object

**Related topic:**     [Insert Object dialog box](#)  
                              [Linking vs. embedding](#)

On Windows computers, you can use objects created with Object Linking and Embedding (OLE) in your Authorware piece. OLE objects can include text, graphics, spreadsheets, and digital movies. You can specify whether these objects remain linked to the files in which they were created or whether they are embedded in the Authorware piece.

Linked OLE objects are stored in an external file created by another application. These objects are linked to the Authorware piece by a reference that identifies the location of the source file. Therefore, Authorware can display a linked object just as if it were part of the Authorware piece. When you edit a linked object, you do so in the external file, using the original application.

Embedded OLE objects are stored inside the Authorware piece. In essence, they become a part of the piece. When you update an embedded object, you do so from within Authorware.

## Linking vs. embedding

There are several considerations in deciding whether to link or embed an OLE object. Because linked objects are stored in another file, they do not increase the size of the Authorware piece much; this can be important for large objects such as video clips.

Another important decision relates to file maintenance. If you edit a linked object in its original application, any changes are automatically reflected in the Authorware piece (unless you specify otherwise). As a result there is consistency among files, and you can save lots of time if a single file is linked to several displays. However, maintaining an Authorware piece that contains linked objects is more complex because the source file or files must always be available to Authorware, even if the application is stored on a network.

Finally, consider how the user will interact with the application. If you simply want to create content for your piece by using objects created in other programs, it may be easiest to embed the object. However, linking makes it possible for the user to change or otherwise interact with data in a file. For example, a kiosk might display a schedule of events that changes monthly. If you use linked objects, the latest schedule is automatically displayed.



## Insert Object Dialog box

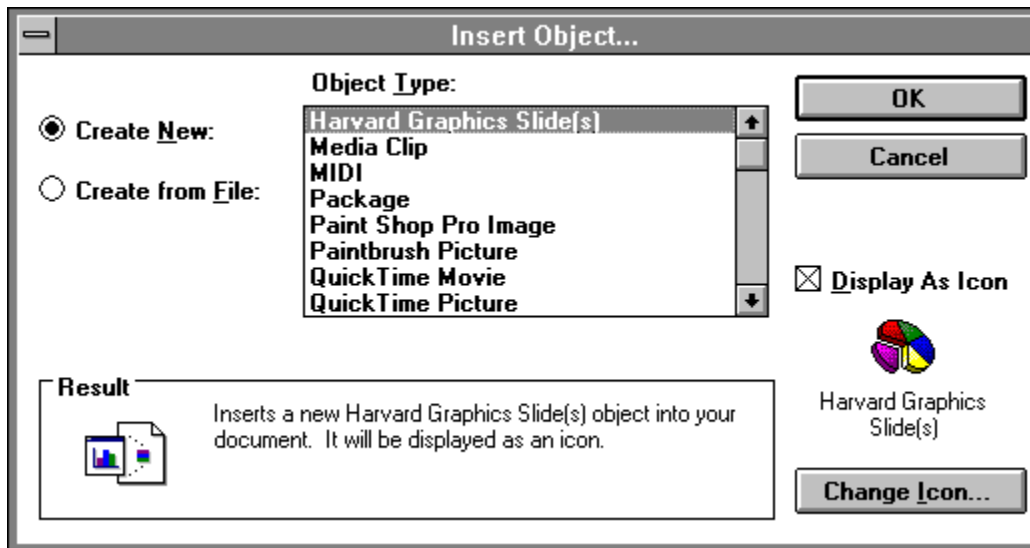
You can create an OLE object while editing a display icon, when the toolbox is displayed. To do so, choose Insert Object to display the Insert Object dialog box. You can also create OLE objects by using the clipboard, as described in the [Paste Special](#) topic.

The appearance of the Insert Object dialog box changes depending on which of two options you selection (click one for more information):

- [Create New](#)
- [Create from File](#)

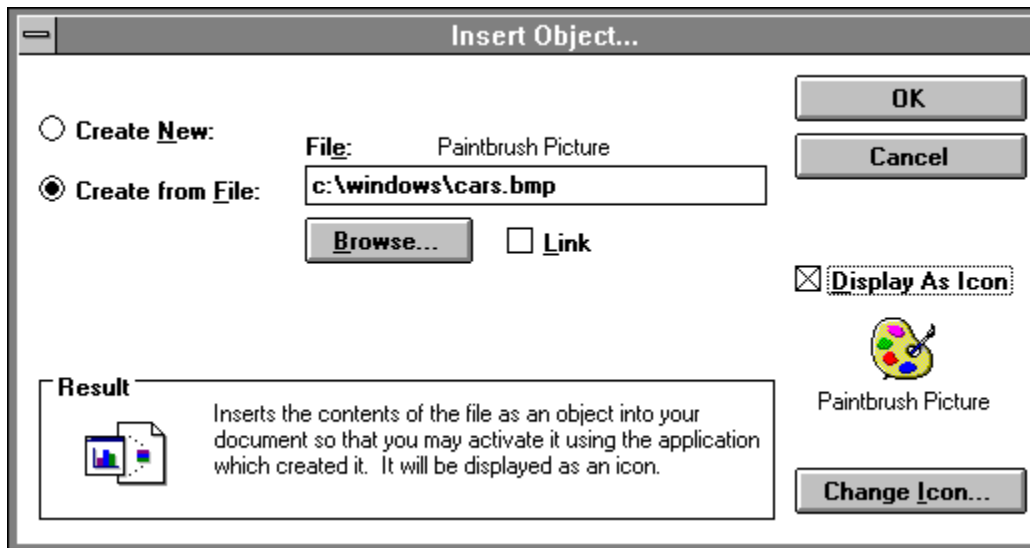
## Insert Object Dialog box--Create New

Click an option in the dialog box for more information:



## Insert Object Dialog box--Create from File

Click an option in the dialog box for more information:



**Create New**  
**(Insert Object dialog box)**

Select this option to create an empty embedded OLE object in your Authorware piece. Select the type of object you want to create from the Object Type list.

## **Object Type list** **(Insert Object dialog box)**

This scrolling list contains the types of objects you can create on your computer. The types of objects you can create depends on what applications are installed.

**Create from File**  
**(Insert Object dialog box)**

Select this option to use the contents of an existing file to create a linked or embedded OLE object. A new Insert Object dialog box appears.

## **File**

### **(Insert Object dialog box)**

When the Insert Object dialog box is open, the File field contains the current folder. In this field, enter the name and path of the source file. If you don't know (or don't want to type) the filename, you can click the Browse button to display the file-selection dialog box.

**Link**  
**(Insert Object dialog box)**

Select this option to create a linked OLE object. If you don't select this option, the OLE object will be embedded.



**Result**  
**(Insert Object dialog box)**

This area provides more information about the effect of the selected options.

## **Display as Icon** **(Insert Object dialog box)**

Select this option to display the OLE object as an icon. For example, instead of displaying a spreadsheet in the presentation window, you could display the standard Excel icon. You can also set up icons to be interactive, so that they respond when the user clicks them. For information about how to set up such interactivity, see the [Object submenu](#) topic.

Selecting this option displays the default icon, as defined by the object's source application. It also displays a [Change Icon button](#), which lets you select another icon.

## Change Icon

Click Change Icon to display the Change Icon dialog box in which you can select another icon for the selected OLE object. You can also create and use your own icons.

**Note:** This button appears only if you select the Display As Icon option.

The Change Icon options include the following:

- **Current** (the default)--Displays either the default icon (as defined by the source application) or whatever icon you assigned previously.
- **Default**--Select this option to change the icon back to the default icon.
- **From File**--Select this option to display the icons available in another file.
- **Label**--In this field you can change the label that appears with the icon. The default label is usually the name of the application in which the object was created.

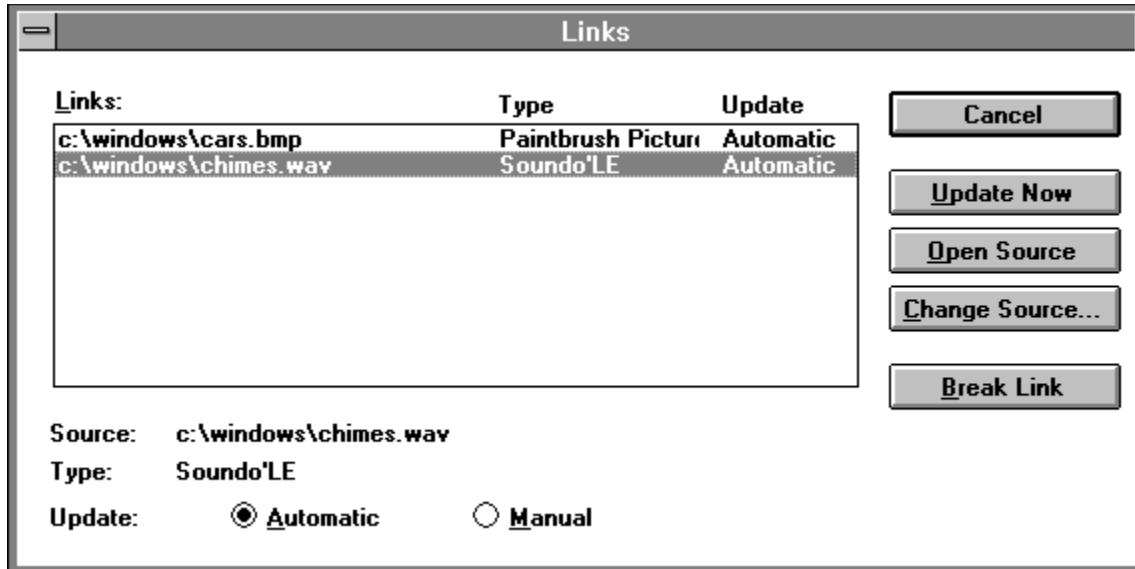
## Browse

Click Browse to display the standard file-selection dialog box and locate the file that contains the icon you want to use.

## Links

### (Insert Object dialog box)

Choose Links to display the Links dialog box, which contains the options that apply to linked OLE objects. You can edit links, break links, and define how and when selected links are updated.



To manipulate an OLE link, select it in the Links list and click the button that performs the operation you want.

## Links

### (Links dialog box)

This list shows all links in the current file and identifies each link's path and filename, the link type, and whether the link is set up to be updated automatically or manually.

## Update radio buttons (Links dialog box)

Select one of these options to determine when and how Authorware updates the OLE object.

- **Automatic**--Select this option to update the object automatically when you change the external file.
- **Manual**--Select this option to update the object when you click the Update Now button or when you are using the `OleUpdateNow` system function.

## **Update Now** **(Links dialog box)**

If you selected the Manual option, clicking Update Now updates the OLE object.

## **Open Source** **(Links dialog box)**

Click Open Source to open the source application for the selected link so that you can edit it. The OLE object is updated whether you selected the Manual or the Automatic option.



## **Change Source** **(Links dialog box)**

Click Change Source to reassign the selected link from one external file to another. This option is particularly useful if a source file was renamed or moved. To reassign a link, click Change Source to display a file-selection dialog box and locate the file you want.

## **Break Link** **(Links dialog box)**

Click Break Link to break the selected link and to change the object from a linked object to a static image of the object, as it appeared when it was last updated. Any connection to the source application is lost.

## Object submenu

Click a submenu command for more information:

Functions related to OLE objects

Object verbs

Object Attributes

Convert

Make Static

The Object submenu contains the commands you can use to manipulate the selected OLE object. This includes defining what the object does, defining its interactivity in the packaged piece, converting the object's format, and converting the object to a bitmapped graphic.

These commands are available when you edit the design window and when the toolbox is displayed. Depending on the type of object you select, the command changes to identify the object. For instance, if you select a WordPerfect object, the command changes to Document Object; for an Excel object, you'd see Spreadsheet Object. If no object is selected, only the Make Static command is available.

## Functions related to OLE objects

The following functions are useful when you are working with OLE objects:

`OleDoVerb`--Activates the given verb for the first OLE object in the specified icon.

`OleGetObjectVerbs`--Lists all verbs that apply to the first OLE object in the specified icon.

`OleGetTriggerVerb`--Finds out what trigger verb the first OLE object in the specified icon has.

`OleSetTriggerVerb`--Assigns the given verb to the first OLE object in the specified icon.

`OleGetTrigger`--Finds out what triggers the first OLE object in the specified icon.

`OleSetTrigger`--Determines what triggers the first OLE object in the specified icon.

`OleIconize`--Determines whether the first OLE object in the specified icon is shown as an icon or is fully displayed.

`OleSetAutoUpdate`--Determines whether the first OLE object in the specified icon is updated automatically or manually.

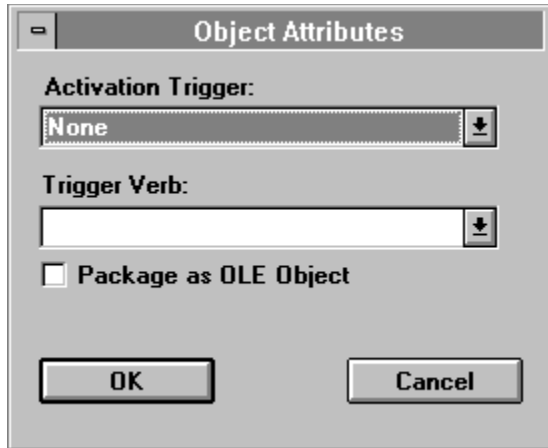
`OleUpdateNow`--Updates the first linked OLE object in a display.

## Object verbs

The commands that let you define what an OLE object does or how to work with it are called verbs. Which verbs appear at the top of the Object submenu depends on the OLE object you selected. For example, Play is a verb for digital movie and sound objects, Open is the verb that opens graphic and text objects for editing in the external application, and Edit is the verb that provides in-place editing for embedded graphic and text objects, where the external application's menus, toolbars, and other controls temporarily replace the Authorware interface. (When you finish editing, simply click outside the object to restore the Authorware interface.)

## Attributes (Object submenu)

Choose Attributes to display the Object Attributes dialog box, in which you can set up interactivity for the selected OLE object in the packaged course. Click a part of the dialog box for more information:



You can use the options in this dialog box to determine whether an object in a packaged piece is interactive, how the interactivity is triggered, and what type of interaction occurs.

## Activation Trigger (Attributes dialog box)

If you selected the Package as OLE Object option, the options on this drop-down list determine how interactivity is triggered. Otherwise, the options are dimmed.

- **None**--Select this option if you don't want the OLE object to respond automatically to the user's click. You can activate the object manually by using the system function `OleDoVerb` to trigger the object. For more information, see "OLEDoVerb" in *Authorware Reference*.
- **Single-Click**--Select this option if you want the OLE object to respond when the user clicks it once.
- **Double-Click**-- Select this option if you want the OLE object to respond when the user double-clicks it.

### **Trigger Verb (Attributes dialog box)**

From this drop-down list, select the verb that will be activated when the user clicks the OLE object. Which verbs are available depends on the type of OLE object. For example, Play is available for digital movie and sound objects; Open and Edit are available for text, spreadsheet, and graphics objects.



### **Package as OLE Object (Attributes dialog box)**

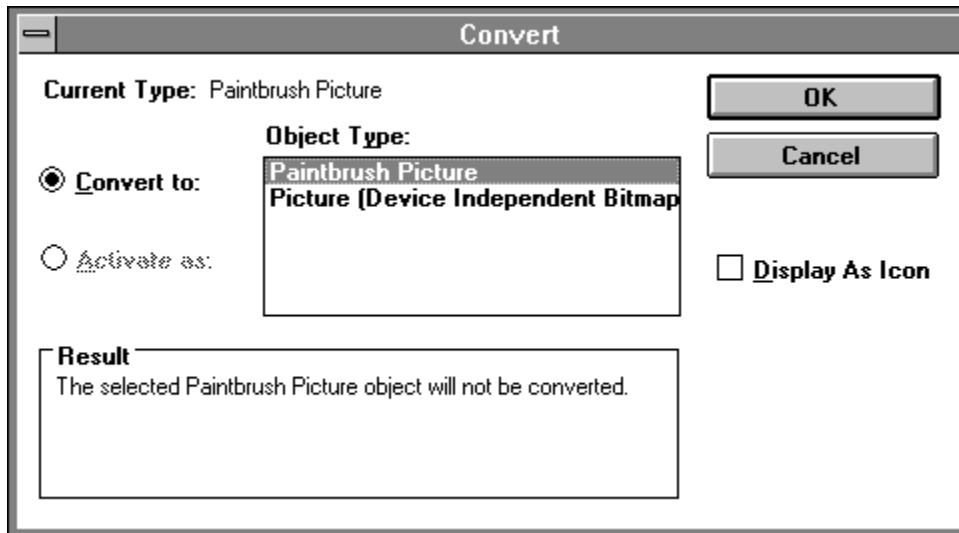
Select this option to make the OLE object interactive in the packaged piece. To set up what the object does and what causes the object to do it, select an option from the Trigger Verb and the Activation Trigger drop-down lists.

**Note:** If the packaged piece contains OLE objects, make sure that OLE 2.0 or later is installed on the user's system. You must also install A3WOLE.DLL on the user's system.

## Convert (Object submenu)

Choose Convert to change an embedded or linked OLE object's current format to that of another application, so that you can edit the object in an alternate interface.

Choosing Convert displays the Convert dialog box, in which you define how to convert an OLE object's format. Click a part of the dialog box for more information:



This option is useful when you are moving an Authorware piece to a computer that does not have the original source application, or to take advantage of features not available in that application. For example, if the Authorware piece contains an Excel object, you could convert its format to that of a Lotus 1-2-3 object. You use the same procedure to convert the object back to its original format.

You can convert the selected object's format either permanently or just for the current session. You can also redefine whether to display the object in its fully rendered form or as an icon.

## **Convert To** **(Convert dialog box)**

Select this option to convert the selected object to any of the formats in the Object type list, which contains all supported formats for the current object. Which options appear in this list depends on which applications are installed on your system. Select the desired format from the list.

### **Activate As (Convert dialog box)**

Select this option to temporarily convert the selected object's format to any of the other object types in the list. After you complete the edit, its format reverts back to the original application's format.

## **Result**

### **(Convert dialog box)**

The Result area provides more information about the effect of the selected options.

## **Display as Icon** **(Convert dialog box)**

Select this option to display the Change Icon button. Clicking the Change Icon button displays the converted OLE object as an icon. If you changed the object's format to that of an application other than the one that created the object, that application's icon automatically replaces the original application's icon. To change the icon, click the Change Icon button to display the Change Icon dialog box and select a new icon.

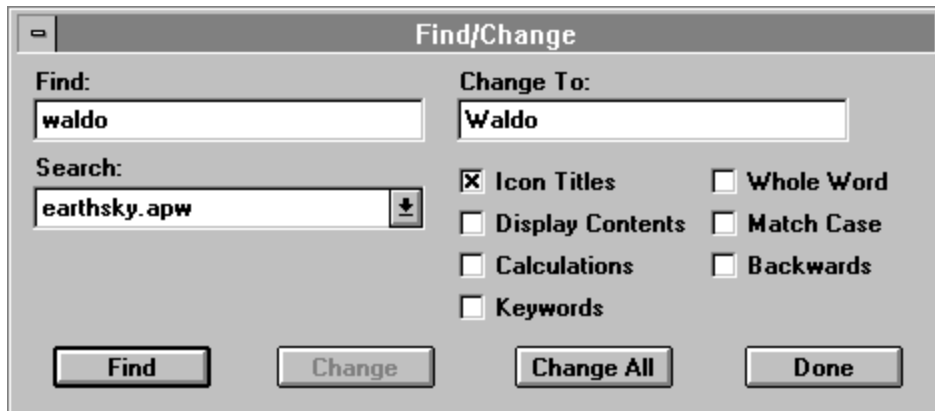
## **Make Static** **(Object submenu)**

Choose Make Static to permanently convert the selected OLE object in the current display window into a bitmapped graphic. If no display window is being edited, the Make Static command converts *all* OLE objects in the selected icon. This command is useful when you are finished manipulating an object during authoring, if you don't want to keep the object's OLE information in the unpackaged piece.

Because this command removes all OLE information from objects, you can't recover their original OLE attributes.

## Find/Change

Choose Find/Change to search for and change text contained in display text objects, in calculation icons, in keywords associated with icons, and in icon titles. Click a part of the dialog box for more information:



The Find/Change dialog box is a standard Windows-style window with a title bar that says "Find/Change". It contains two text input fields at the top: "Find:" with the text "waldo" and "Change To:" with the text "Waldo". Below the "Find:" field is a "Search:" field containing "earthsky.apw" and a small downward arrow icon. To the right of the "Search:" field are four checkboxes: "Icon Titles" (checked), "Display Contents" (unchecked), "Calculations" (unchecked), and "Keywords" (unchecked). To the right of these are three more checkboxes: "Whole Word" (unchecked), "Match Case" (unchecked), and "Backwards" (unchecked). At the bottom of the dialog are four buttons: "Find", "Change", "Change All", and "Done".

You can specify the scope of the search, the characters you want to find, whether to replace those characters with replacement text, and whether to change all instances of the found text with the replacement text (within the specified scope). The search options you define appear the next time you use the Find/Change command.

The Find/Change command does not find text in library icons that are linked to your piece. To find text in library icons, first select the library window you want to search and then start the search. The Find/Change command also does not find text in OLE objects.



## **Find** **(Find/Change dialog box)**

In this field you type the text you want to locate.

## **Change To** **(Find/Change dialog box)**

In this field you type the text you want to replace the found text. If you click Change, the replacement text replaces a particular match; if you click Change All, the replacement text replaces all instances of the match within the search scope.

## Search (Find/Change dialog box)

Use the search options to search for the text you've specified. Which options are available depends on what you're doing at the time. For example, the Between Flags option is available only when you place at least one flag on the flowline.

- **Filename** (the default)--Select this option to search all icons in the entire file that is identified by the filename and the extension, if any. If a library window is selected, this option shows the library name with the prefix [Lib].
- **Current Design Window**--Select this option to search only icons in the currently open design window and all maps in that window.
- **From Paste Hand**--Select this option to search all icons below the paste hand (or above the paste hand in a backward search) in the design window. This option is available only if you have placed a paste hand in the design window.
- **Between Flags**--Select this option to search all icons between the start and stop flags. If you used only one flag, Authorware searches from the start flag to the end of the flowline, or from the beginning of the flowline to the stop flag. This option is available only if you have placed at least one flag in a design window.

## **Icon Titles**

### **(Find/Change dialog box)**

Select this option to search for icon titles. When Authorware finds the icon title, it highlights that title.

## **Display Contents** **(Find/Change dialog box)**

Select this option to search inside display and interaction icons for text in text blocks. When Authorware finds the text, it opens the presentation window and highlights the text.

## **Calculations**

### **(Find/Change dialog box)**

Select this option to search inside calculation icons. If Authorware finds the text, it opens the calculation window and highlights the text. Calculation windows close automatically after they are searched.

## Keywords (Find/Change dialog box)

Select this option to search icons for keywords. When you use the Find/Change command to search for keywords, Authorware displays any matches it finds in the Keywords dialog box, with the match highlighted. The Keywords dialog box remains open when the search is finished. You can now use any of the options in the Find/Change dialog box to make changes to the keyword Authorware found.

For more information about using keywords, see the [Keywords](#) topic.

You can also use the `Keywords` function to find all keywords for an icon. For more information, see *Authorware Reference* .

### **Whole Word** **(Find/Change dialog box)**

Select this option to search for whole words that match the characters you specified in the Find field. For example, if you type "resident", Authorware won't match "president". If you don't select this option, Authorware finds all instances of the characters you specified, even if they are part of another word.



### **Match Case** **(Find/Change dialog box)**

Select this option to search for characters that match the characters and capitalization you specified. For example, if you type "President", Authorware won't find "president". If you don't select this option, Authorware ignores capitalization when searching for the characters.

## **Backwards**

### **(Find/Change dialog box)**

Select this option to search backward, starting from the last icon defined by the search scope. For example, if the search scope is Current Design Window, Authorware begins the search with the last icon in the window.

## **Find**

### **(Find/Change dialog box)**

Click Find to start the search for the text you entered into the Find text field, using the options and the search scope you set up.

## **Change** **(Find/Change dialog box)**

If you entered text in the Change To field, click Change to replace a match of found text with the new text.

## **Change All** **(Find/Change dialog box)**

If you want to change all matches of found text with the new text, click Change All. Authorware finds the text and changes it automatically, without first showing each instance of the text. You can cancel this process by pressing the Escape key, although any words that have been changed won't be changed back.

You can use the asterisk (\*) and question mark (?) wildcard characters to search for partial words. Type an asterisk to substitute for an entire word or any missing part of a word. Type a question mark to substitute for any single character that may be missing.

**Done**  
**(Find/Change dialog box)**

Click Done to close the Find/Change dialog box.

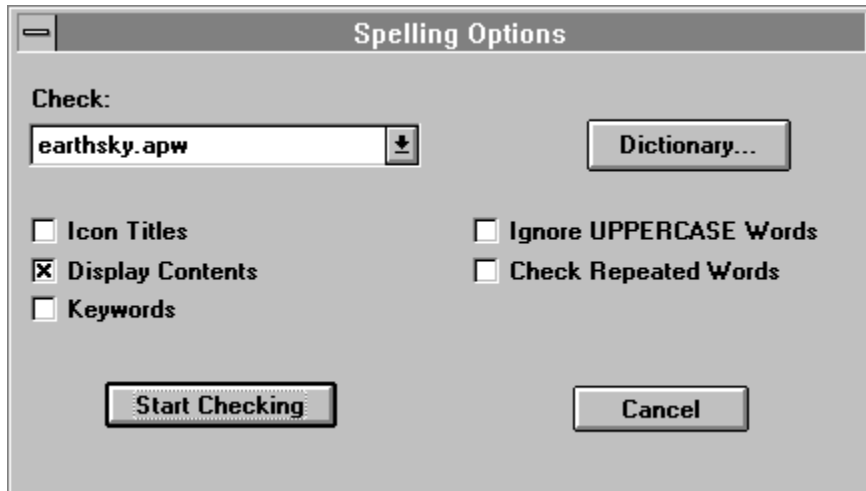
## Find Again

Choose Find Again to search again for the items you set up in the Find/Change dialog box.

## Check Spelling

Choose Check Spelling to search for and flag words that may be misspelled in icon titles, in text blocks in display and interaction icons, or in keywords associated with icons. You can also specify where the check starts and where it stops.

Click a part of the dialog box for more information:



By using the Dictionary button, you can check spelling in various languages or use any custom dictionaries you have installed.

The Check Spelling command does not check text in library icons that are linked to your piece. To check text in library icons, select the library window you want to check first. The Check Spelling command also does not check text in OLE objects.



## Check drop-down list (Check Spelling dialog box)

Use the check options to determine the scope of the spell check. Which options are available depends on what you're doing at the time. For example, the Highlighted Text option is available only if you've highlighted a word or phrase.

- **Filename** (the default)--Use this option to search all icons in the entire file that is identified by the filename and the extension, if any. If a library window is selected, this option shows the library name with the prefix [Lib].
- **Current Design Window**--Select this option to search only icons in the currently open design window and all maps in that window.
- **From Paste Hand**--Select this option to search all icons below the paste hand (or above the paste hand in a backward search) in the design window. This option is available only if you have placed a paste hand in the design window.
- **Between Flags**--Select this option to search all icons between the start and stop flags. If you used only one flag, Authorware searches from the start flag to the end of the flowline, or from the beginning of the flowline to the stop flag. This option is available only if you have placed at least one flag in a design window.
- **Selected Icons**--Select this option to search one or more icons you selected. This option is available only if you have selected at least one icon.
- **Highlighted Text**--Select this option to check any text you highlighted. This option is available only if you have highlighted text.
- **Toolbox Display**--Use this option to check the contents of one or more selected objects in a display that contains several objects (that are displayed because they are in previous icons on the flowline). This option is available only when the toolbox is displayed and when you have selected an object in the display.

## **Dictionary**

### **(Check Spelling dialog box)**

Click Dictionary to display the Dictionary list, which contains the dictionaries for English (American and British), French (Français), and German (Deutsch). If you installed dictionaries for other languages, they appear in the list as well.

**Icon Titles**  
**(Check Spelling dialog box)**

Select this option to check the spelling of icon titles.

**Display Contents**  
**(Check Spelling dialog box)**

Select this option to check the spelling of text in text objects in display and interaction icons.

## **Keywords**

### **(Check Spelling dialog box)**

Select this option to check the spelling of keywords associated with icons. For more information about using keywords, see the [Keywords](#) topic.

**Ignore UPPERCASE Words**  
**(Check Spelling dialog box)**

Select this option to ignore words that are in all uppercase letters.

**Check Repeated Words**  
**(Check Spelling dialog box)**

Select this option to flag words that are repeated.

## Start Checking (Check Spelling dialog box)

Click Start Checking to start the spell check. When Authorware finds a word that may be misspelled, it displays the Misspelled Word dialog box.

The word Authorware doesn't recognize appears in the Misspelled Word field. A suggested correction appears in the Change To field, followed by a list of other suggestions.

If the flagged word is correct, you can either ignore the flag, ignore all future flags in this particular spell check, or add the flagged word to the dictionary to avoid all future flags as well. If the flagged word really is misspelled, you can accept Authorware's first suggestion, select another suggestion from the list, or enter the correct word in the Change To field.

- **Ignore**--Click Ignore to continue the check without replacing the word.
- **Ignore All**--Click Ignore All to add the word to a temporary personal dictionary so that it is not flagged again during the current check. However, it will be flagged again if you check the file later.
- **Add**--Click Add to add the word to a permanent personal dictionary. It will not be flagged again.
- **Change**--Click Change to change the incorrect word to the word displayed in the Change To field. You can also select one of the suggestions in the list or enter the correct word and then click Change.
- **Done**--Click Done to close the Misspelled Word dialog box.



## Get Info

Choose Get Info to display information about an icon you select on the flowline or in a library. For icons on the flowline, this information is different depending on whether the selected icon is an icon you dragged from the icon palette or an icon that's linked to a library. Click one of the following for more information:

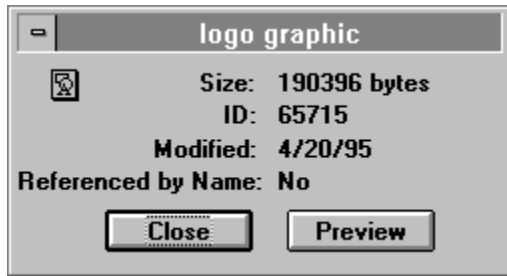
[Get Info window for icons from the icon palette](#)

[Get Info for library icons](#)

[Get Info for icons linked to a library](#)

## Get Info window for icons from the icon palette

Click a part of the dialog box for more information:



**Tip:** You can also display information about an icon by pressing the Alt key while clicking the icon on the flowline.

## Size

(Get Info window for icons from the icon palette)

Shows the icon's size.

## **ID**

**(Get Info window for icons from the icon palette)**

Shows the icon's ID, which is a unique number that Authorware automatically assigns to each icon you create.

**Modified**  
(Get Info window for icons from the icon palette)

Shows the last time the icon was modified.

## Referenced by Name (Get Info window for icons from the icon palette)

Shows whether any referenced variables refer to the selected icon. If there are such references, Authorware displays "Yes"; otherwise, it displays "No." For example, in the expression `TotalCorrect@"Question 1"` Authorware refers by name to an interaction icon titled `Question 1` to get the value of the variable `TotalCorrect`.

Knowing whether there are references to an icon is especially useful when you're modifying an existing piece, to make sure that you don't delete referenced icons. Choose Show Connections from the Attributes menu for details about the references to the icon. For more information, see the [Show Connections](#) topic.

**Close**  
**(Get Info window for icons from the icon palette)**

Click Close to close the Get Info window and the preview window.

## **Preview**

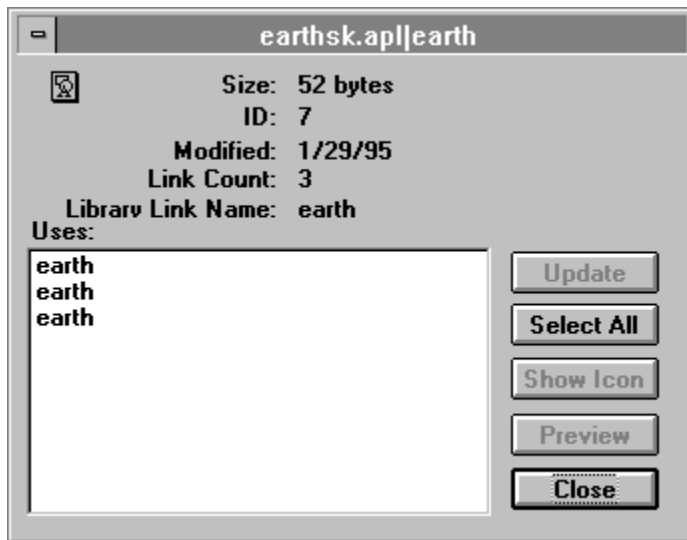
### **(Get Info window for icons from the icon palette)**

Click Preview to display a preview window, in which you can see the icon's contents without having to open the presentation window. If you have sound hardware, you can preview sounds through the speaker.



## Get Info for library icons

Click a part of the dialog box for more information:



This dialog box shows the title of the library and the title of the selected icon and provides the following information:

**Size**  
**(Get Info window for a library icon)**

Shows the library icon's size.

**ID**  
**(Get Info window for a library icon)**

Shows the library icon's ID.

**Modified**  
**(Get Info window for a library icon)**

Shows the last time the library icon was modified.

## **Link Count**

**(Get Info window for a library icon)**

Shows the number of icons in the current piece that are linked to the icon.

**Library Link**  
**(Get Info window for a library icon)**

Shows the library icon's link name, which is the title of the library icon unless it was renamed.

## Uses

### (Get Info window for a library icon)

This list show all icons in the current piece that are linked to the selected library icon.

## **Update**

### **(Get Info window for a library icon)**

Click Update to apply any changes you make to the attributes of the selected library icon to the icon or icons you select in the Uses list.

Note that this update does not apply to content, which is updated automatically. For example, if you modify a graphic in a library display icon, all icons that are linked to the library icon are automatically updated. However, if you apply an effect or transition to the library icon (by choosing Effects or Transition from the Attributes menu), the effect or transition is not updated until you click this button.



**Select All**  
**(Get Info window for a library icon)**

Click Select All to select all the icons in the Uses list.

## **Show Icon**

### **(Get Info window for a library icon)**

Click Show Icon to locate the icon selected in the Uses list. Authorware finds the icon, highlights its title, and closes the Get Info window. This option is available only if you select a single icon in the Uses list.

## **Preview**

### **(Get Info window for a library icon)**

Click Preview to display a preview window, where you can see the icon's contents without having to open the presentation window. If you have sound hardware, you can preview sounds through the speaker.

**Close**  
**(Get Info window for a library icon)**

Click Close to close the Get Info window and the preview window, if it's open.

## Get Info for icons linked to a library

Click a part of the dialog box for more information:



The titles of linked application icons appear in braces.

**Size**  
**(Get Info window for a linked icon)**

Shows the icon's size.

**ID**  
**(Get Info window for a linked icon)**

Shows the icon's ID.

**Modified**  
**(Get Info window for a linked icon)**

Shows the last time the icon was modified.



**Referenced by Name**  
**(Get Info window for a linked icon)**

Shows whether any referenced variables refer to the icon.

## **Library Link Name**

### **(Get Info window for a linked icon)**

Displays the icon's link name, which is the same as the name of the library icon unless the link name was changed. Link names for library icons appear in the Link Name column of the Library window. (You may need to expand the library window to see the Link Name column.)

**Linked to**  
**(Get Info window for a linked icon)**

Shows the title of the library icon to which the icon is linked. This title may or may not be the same as the title that appears on the flowline.

**In Library**  
**(Get Info window for a linked icon)**

Displays the name and the path of the library to which the icon is linked.

**Close**  
**(Get Info window for a linked icon)**

Click Close to close the Get Info window and the preview window, if it's open.

## **Preview**

### **(Get Info window for a linked icon)**

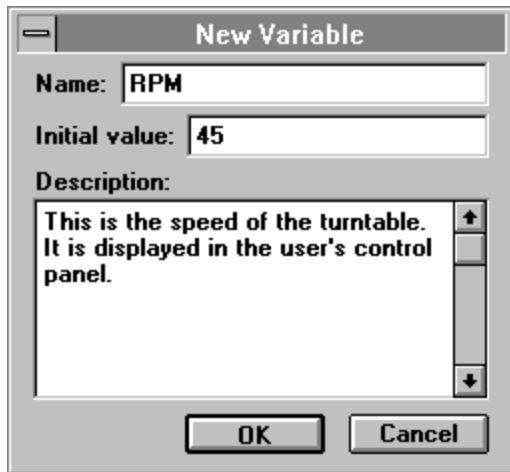
Click Preview to display a preview window, where you can see the icon's contents without having to open the presentation window. If you have sound hardware, you can preview sounds through the speaker.

**Find Original**  
**(Get Info window for a linked icon)**

Click Find Original to highlight the library icon in the library window to which the selected icon is linked.

## New Variable

Choose New Variable to display a dialog box that contains the options for creating a new variable with the name you specify. Click a part of the dialog box for more information:



A screenshot of a 'New Variable' dialog box. The dialog has a title bar with a minus sign icon and the text 'New Variable'. Inside, there are three input fields: 'Name:' with the text 'RPM', 'Initial value:' with the text '45', and 'Description:' with the text 'This is the speed of the turntable. It is displayed in the user's control panel.' The description field is a text area with a vertical scrollbar on the right. At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

**Name:** RPM

**Initial value:** 45

**Description:**  
This is the speed of the turntable.  
It is displayed in the user's control  
panel.

OK Cancel



## **Name**

### **(New Variable dialog box)**

In this field you enter the name of the variable. The name must be unique, 40 characters or less, and start with a letter or underscore character (\_). Names cannot contain reserved words, such as system variables and functions.

## **Initial Value**

### **(New Variable dialog box)**

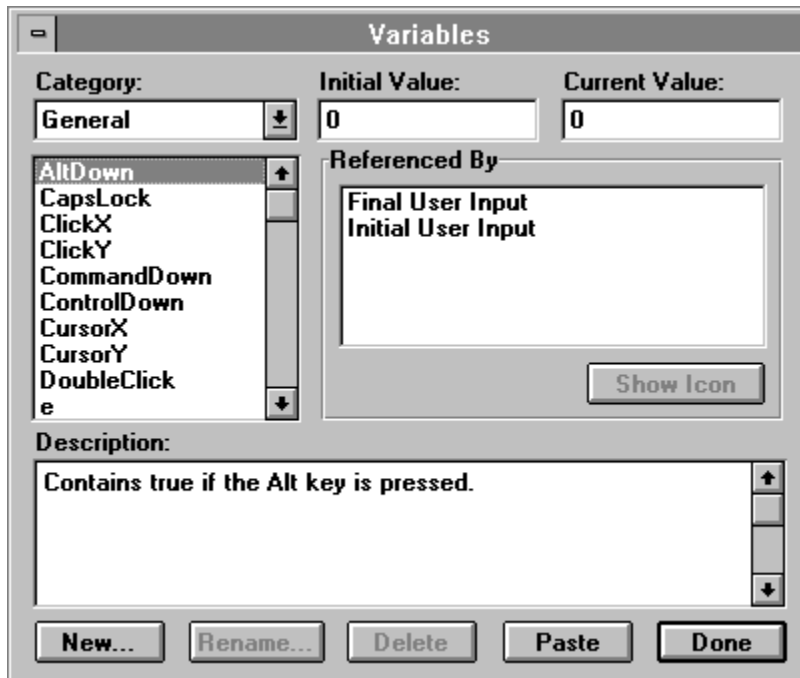
In this field you set the value that the variable has when the piece is first run. This value does not change until Authorware encounters a calculation. The default initial value is 0.

## Description (New Variable dialog box)

In this field you enter a description of the variable and how to use it. This description appears in the Description field of the Variables dialog box that appears when you choose Show Variables.

## Show Variables

Choose Show Variables to display the Variables dialog box, in which you can view system or custom variables and display the following information for any variable: the initial and current value, a description, and a list of icons in which the variable is used. Click a part of the dialog box for more information:



You can also create, rename, and delete custom variables, change their initial and current values, jump to an icon that uses a selected variable, and paste a variable into a calculation icon or in a field.

## **Category**

### **(Show Variables dialog box)**

From this drop-down list or pop-up menu you can select a variable category. Custom variables appear at the bottom of the list, with variables in the current file and any open libraries listed by filename. When you select a category, the scrolling list below the Category field displays only the variables in the selected category.

## **Initial Value**

### **(Show Variables dialog box)**

This field displays the initial value of the selected variable. You can change this value only for custom variables.

## **Current Value** **(Show Variables dialog box)**

This field displays the current value of the selected variable. You can edit this field only for custom variables.

## **Referenced By** **(Show Variables dialog box)**

This field lists all icons in the current file that use the selected variable. You can select an icon and click Show Icon to go to that icon on the flowline.



## **Description**

### **(Show Variables dialog box)**

This field describes what the variable does and how it can be used. You can edit this field only for custom variables.

**New**  
**(Show Variables dialog box)**

Click New to display the New Variable dialog box, in which you can create a custom variable.

## **Rename**

### **(Show Variables dialog box)**

Click Rename to display the Rename Variable dialog box, in which you can change the name of a custom variable.

**Delete**  
**(Show Variables dialog box)**

Click Delete to delete the selected custom variable. This button is active only if there are no icons in the piece that use the selected variable.

**Paste**  
**(Show Variables dialog box)**

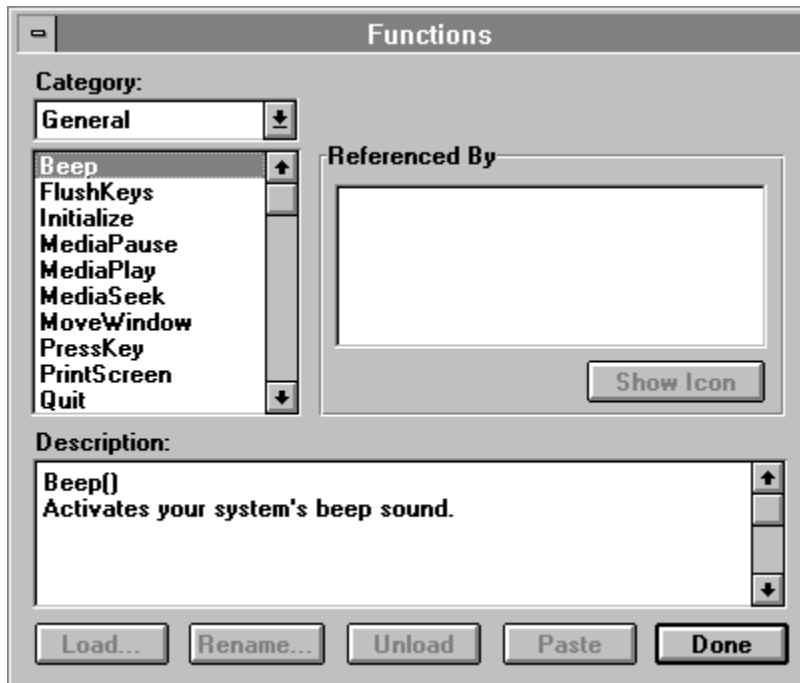
Click Paste to paste the selected variable at the cursor location.

**Done**  
**(Show Variables dialog box)**

Click Done to close the dialog box.

## Show Functions

Choose Show Functions to display the Functions dialog box, in which you can display all system or custom functions, display the syntax and description of a particular function, and display a list of icons in which that function is used. Click a part of the dialog box for more information:



You can also load, rename, and delete custom functions, jump to an icon that uses a selected function, and paste the function into a calculation icon or in a field.

## **Category**

### **(Show Functions dialog box)**

From this drop-down list you can select a function category. Custom functions appear at the bottom of the list, with functions in the current file and any open libraries listed by filename. When you select a category, the scrolling list below the Category field displays only the functions in that category.



## Referenced By (Show Functions dialog box)

This field lists all icons in the current piece that use the selected function. You can select an icon and click **Show Icon** to go to that icon on the flowline.

## Description

### (Show Functions dialog box)

This field shows the function's syntax and describes what the function does. You can copy the function and the syntax, paste it into your piece, and then define the function's arguments. You can edit the description of the function only for custom functions.

## **Load** **(Show Functions dialog box)**

Click Load to display the Load Function dialog box, which prompts you to load a dynamic link library (DLL) or a user code document (UCD). For more information about DLLs and UCDs, see "Custom Functions" in Chapter 9, "Using Functions, Variables, and Expressions," in *Using Authorware*.

## **Rename**

### **(Show Functions dialog box)**

Click Rename to display the Rename Function dialog box, in which you can change the name of a custom function.

## **Unload** **(Show Functions dialog box)**

Click Unload to delete the selected custom function. This option is available only if there are no references to the function in the application.

**Paste**  
**(Show Functions dialog box)**

Click Paste to paste the selected function at the cursor location.

**Done**  
**(Show Functions dialog box)**

Click Done to close the dialog box.

## Load Function

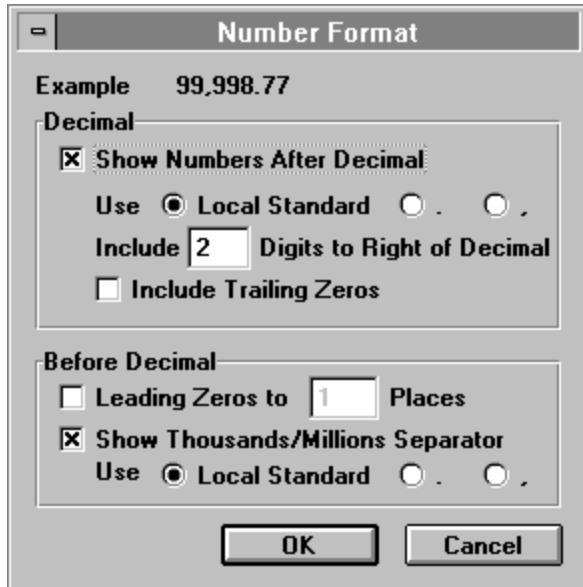
Choose Load Function to load into your Authorware piece user code documents (UCDs) or custom functions contained in dynamic link libraries (DLLs). Use the Load Function dialog box to select the file that contains the DLL or UCD you want to load.



## Number Format

Choose Number Format to display a dialog box in which you can control how numerical variables embedded in display text are formatted.

Click a part of the dialog box for more information:



The dialog box is titled "Number Format" and features a standard Windows-style title bar with a minimize button. It displays an "Example" of the formatted number "99,998.77". The "Decimal" section contains a checked checkbox for "Show Numbers After Decimal", a "Use" section with three radio buttons (the first, "Local Standard", is selected), and an "Include" section with a text box containing "2" followed by the text "Digits to Right of Decimal". There is also an unchecked checkbox for "Include Trailing Zeros". The "Before Decimal" section includes an unchecked checkbox for "Leading Zeros to" followed by a text box containing "1" and the text "Places", and a checked checkbox for "Show Thousands/Millions Separator". This section also has a "Use" section with three radio buttons (the first, "Local Standard", is selected). At the bottom of the dialog are "OK" and "Cancel" buttons.

**Number Format**

Example 99,998.77

**Decimal**

☒ Show Numbers After Decimal

Use ☒ Local Standard ☐ . ☐ ,

Include  Digits to Right of Decimal

☐ Include Trailing Zeros

**Before Decimal**

☐ Leading Zeros to  Places

☒ Show Thousands/Millions Separator

Use ☒ Local Standard ☐ . ☐ ,

OK Cancel

**Example**  
**(Number Format dialog box)**

This number shows how your choices affect the number format.

## Decimal (Number Format dialog box)

Use the options in this area to define the appearance of the numbers after the decimal character and to define the decimal character itself.

- **Show Numbers After Decimal**--Select this option to display numbers after the decimal.
- **Use**--Use these options to determine how to display the decimal.
  - **Local Standard**--Select this option to use the character specified in the International control panel.
  - **period**--Select this option to use a period (.) as the decimal separator.
  - **comma**--Select this option to use a comma (,) as the decimal separator.
- **Include \_ Digits to Right of Decimal**--Enter the number of digits you want to display to the right of the decimal.
- **Include Trailing Zeros**--Select this option to display zeros at the end of the number. For example, using this option with two digits to the right displays "1" as "1.00."

## Before Decimal (Number Format dialog box)

Use the options in this area to define the appearance of the numbers before the decimal character.

- **Leading Zeros to \_ Places**--Enter the number of leading zeros you want to display. For example, if you specify three digits, "7" appears as "007" and "45" appears as "045." Specifying leading zeros is useful when you want all displayed numbers to have the same number of digits.
- **Show Thousands/Millions Separator**--Select this option to use a character to separate values in the thousands or millions.
- **Use**--Use these options to determine which character separates values in the thousands or millions.
  - **Local Standard**--Select this option to use the character specified in the International control panel.
  - **period**--Select this option to use a period (.) as the separator.
  - **comma**--Select this option to use a comma (,) as the separator.

## Calculations

Choose Calculations to attach a calculation to any other icon you select. When you choose this command, a calculation window opens in which you enter statements and expressions. For more information about calculations, see the [Calculation icon](#) topic.

The title bar of the calculation window shows the title of the icon to which it is attached. When you attach calculations to an icon, a small equal sign (=) appears over the left corner of the icon in the design window.

When a calculation icon is selected, choosing Calculations opens the calculation window.

## Create Model

Choose Create Model to create a model that contains the icon or the group of icons you select. The Model Description dialog box appears, in which you can enter up to 31 characters as a description of the model.

When you enter the description and click OK, Authorware displays the Create New Model dialog box, in which you can enter the filename, set up the folder location, and save the model.

The icons you used to create the model still appear in your piece. Authorware stores a copy of those icons in the model file you created. Whenever you open Authorware, this model will be listed on the Paste Model submenu in the Libraries menu. (The Paste Model submenu is active only in the design window.)

If you load a model that contains calculation icons or attached calculations with custom variables that have the same names as custom variables in the current piece, Authorware prompts you to select any custom variables you want to rename.

## Load Model

To paste a previously created model in your piece, you must first load the model. Choose Load Model to display a dialog box that shows a list of the available models, from which you can select a model to load.

Authorware displays the Load Model dialog box that contains the following options:

- **Load**--Click Load to load the selected model. The model description now appears in the Paste Model submenu, ready for you to paste into your piece.
- **Info**--Click Info to see the description of the model you selected.

## Unload Model

Choose Unload Model to display a dialog box in which you can select a model to remove from the Paste Model submenu. The model isn't deleted from the computer, just from the submenu--you can reload it whenever you want.

The Unload Model dialog box displays the filenames, paths, and descriptions of all models that are currently loaded and listed on the Paste Model submenu.

Authorware displays the Unload Model dialog box. Click the Unload button to remove the selected model from the Paste Model submenu.



## Paste Model

Choose Paste Model to display the submenu that contains the descriptions of any models you created and loaded. To paste a model, select it in the submenu.

The model is pasted below the paste hand. If you are pasting the model in a decision or interaction icon, and if the model contains decision, interaction, or framework icons or more than one icon, the model is automatically placed in a map.

## **New Library**

Choose New Library to create a new untitled library window. The first time you save the library, Authorware prompts you for a name.

## Open Library

**Related topic:**     [The library window](#)

Choose Open Library to display a dialog box that prompts you to select a previously created library file. Once you link icons in an Authorware piece to a library, that library is automatically opened when you open the piece.

You can open library files created on one platform on the other platform. When you do, you are asked to convert the file and save it in the file format required by the new platform.

## Libraries submenu

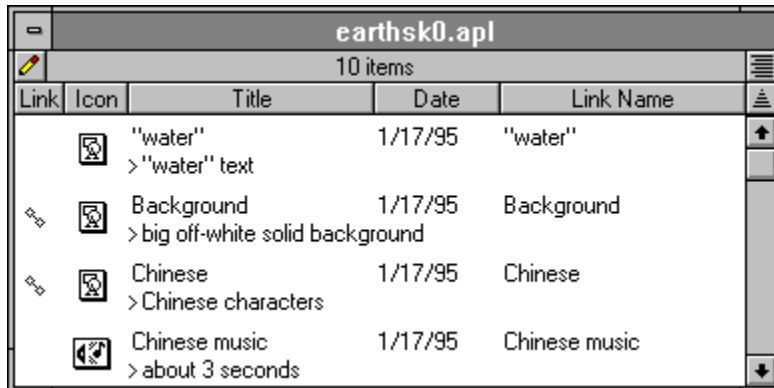
**Related topic:**     [The library window](#)








Once you have created or opened a library file, libraries (and their path names) are listed in the Libraries submenu. When you select a library from the Libraries submenu, its window opens.

When you select an open library window, the menu commands change to reflect library functions; for example, the Save As command becomes Save Library As.

## The library window

Click a name of part of the library window for more information:



earthsk0.apl				
10 items				
Link	Icon	Title	Date	Link Name
		"water"	1/17/95	"water"
		> "water" text		
		Background	1/17/95	Background
		> big off-white solid background		
		Chinese	1/17/95	Chinese
		> Chinese characters		
		Chinese music	1/17/95	Chinese music
		> about 3 seconds		

To expand a library window to see all of the information it contains, drag its lower right corner.

You can use this window to make access to libraries read only, to change the titles and link names of libraries, to add comments, and to change the way the library icons are sorted.

### Library entries

You can use each line in the window to edit the icon's title or link name or to enter a comment.

## Read/Write status button (library window)

By default, Authorware opens library files with read-write access status, so that anyone who uses the library can make changes to it. Click the pencil to change the library's access status from read-write to read only. A diagonal line appears across the button to identify the read only status. If you made changes to the library, you're prompted to save them first.

Set a library's status to read only to make sure you don't accidentally overwrite the library file, or if you want many authors to be able use the library simultaneously on a network.

When a library's access status is set to read only, you can make changes but you can't save them. The only way to save changes to a read-only file is to save the library under a new name, using the Save Library As command on the File menu. When you change a file's access status back from read only to read-write, any changes you made to the library are lost.

Depending on a library's access status, authors on a network can work with library files as follows:

- If a library is set to read-write, only one author at a time can open a library file. By limiting access to libraries on networks, Authorware prevents more than one person from making changes at the same time.
- If a library is set to read only, all authors can open the library, but nobody can save changes to the library.

## Sort buttons and library window columns

You can use the sort buttons to control how information about library icons is displayed. By default, library icons are sorted alphabetically by title and then by icon type. If you click any of the other buttons, the icons are sorted by that field and then by title. By default, icons are sorted in ascending order (a to z, earlier date to later date, and so on). You can use the Ascend/Descend button to reverse the sort order.

When you edit a library entry (for instance, if you change an icon's title or link name), icons are not resorted until you click one of the sort buttons.

- **Link**--The Link symbol appears next to each library icon that is linked to one or more icons in the current piece. If no library icons are linked to the current piece, the Link button is dimmed. Click the Link button to sort by title icons that are linked to the current piece.
- **Icon**--Click the Icon button to sort icons by type, in the following order: display, interaction, calculation, digital movie, and sound.
- **Title**--By default, Authorware displays icons sorted by title, in alphabetical order. The order is either from a to z or from z to a, depending on the state of the Ascend/Descend button.
- **Date**--Displays the date on which the library icon was last modified. You cannot change the date. Click the Date button to sort the icons by date. The order is either from earliest to latest or from latest to earliest, depending on the state of the Ascend/Descend button.
- **Link Name**--Displays each library icon's link name, which Authorware assigns automatically when you drag a library icon to the flowline. The link name is the same as the title of the library icon, unless you change it. Click the Link Name button to sort icons alphabetically by link name. The order is either from a to z or from z to a, depending on the state of the Ascend/Descend button.

### **Condense/Expand button (library window)**

Click this button to switch the display between the condensed and expanded views. In the expanded view, an extra line for comments follows each icon's title. In the condensed view, this line is not available.



### **Ascend/Descend button (library window)**

Click this button to switch the sort order of the icons between ascending and descending.

For more information about libraries, see Chapter 8, "Reusing Content and Logic," in *Using Authorware*.

## Show Library Links

Choose Show Library Links to display a list of icons in your current piece that are linked to library icons.

The Show Links dialog box includes the following options:

- **Show**
    - **Unbroken Links**--Select this option to list the icons with library links that are intact.
    - **Broken Links**--Select this option to list the icons with library links that have been broken.
- For information on how to fix broken connections, see the sidebar "Changing connection names" in Chapter 8, "Reusing Content and Logic," in *Using Authorware*.
- **Close**--Click Close to close the Show Links window.
  - **Show Icon**--Click Show Icon to highlight on the flowline the icon you selected in the list. This button is active only if you select a single icon.
  - **Select All**--Click Select All to select all the icons in the list.
  - **Update**--Select the icons you want to update and then click Update. Authorware updates the icons in your piece with any changes you made to the library icons to which they are linked.

## Buttons

**Related topics:**    [Variables related to buttons](#)  
                              [Button Library dialog box](#)  
                              [Button Editor](#)

Choose Buttons to display the [Button Library dialog box](#), which contains the standard Authorware system buttons and any custom buttons that are used in the current Authorware piece. The Button Library dialog box also appears when you click the button in the Button Options dialog box.

## Variables related to buttons

You can use the system variable `Checked` to change the state of a checkbox or radio button from the checked state to the normal state and back when the user clicks it. For more information, see "Checked" in *Authorware Reference*.

## The Button Library

Use this dialog box to display information about buttons, to select a button to paste into your piece, and to display the [Button Editor dialog box](#), in which you can edit or create buttons.

**Note:** After you paste a button from the Button Library dialog box into the piece, you can resize system buttons in the presentation window. However, you can't resize custom buttons in the presentation window; to resize custom buttons, use the Button Editor dialog box.

The Button Library initially contains three buttons -- the standard button, the checkbox button, and the radio button -- for each platform.

Any custom buttons used in the current piece appear at the beginning of the Button Library dialog box. For example, if your piece contains a framework icon, the buttons that are the default navigation controls appear in the Button Library dialog box. Also, when you paste a model into your piece, any buttons it contains will appear in the Button Library dialog box.

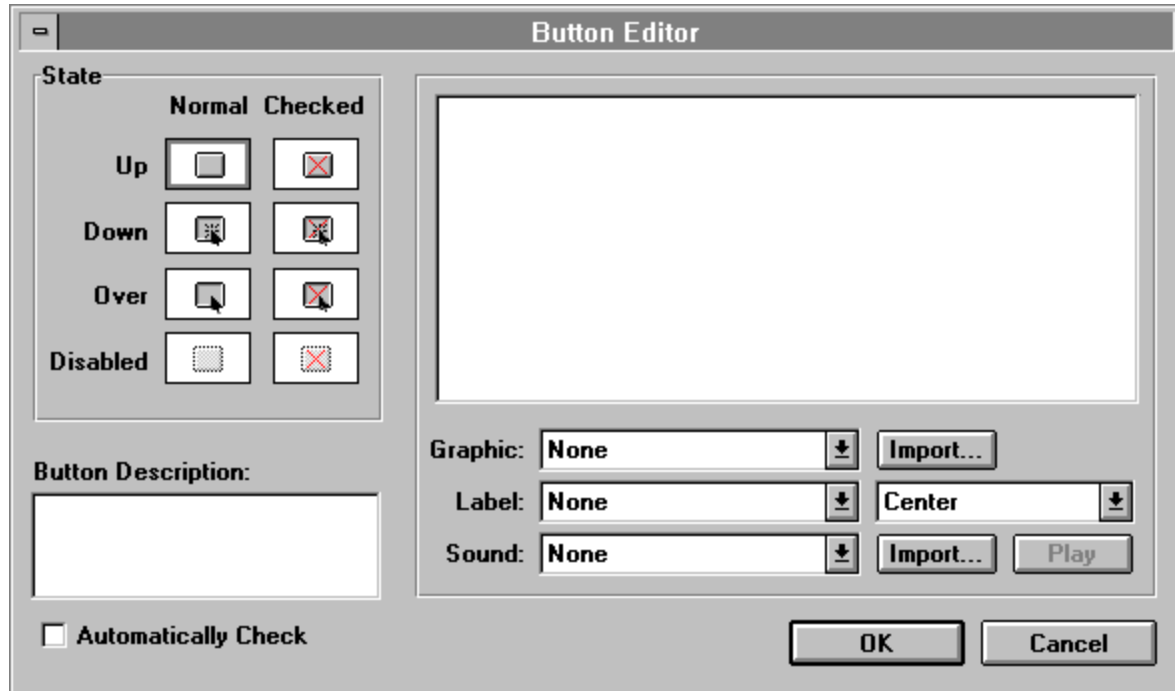
You can use the following options in the Button Library:

- The **Preview** column shows how the button will look in the display. The **Description** column includes information about the type of button, including the platform and whether the button is system or a custom button. For custom buttons, Authorware also shows whether the button includes graphics or sound and how many icons in the piece use that button.
- **Add**--Click Add to display the [Button Editor dialog box](#), where you can create new custom buttons. For more information, see the [Button Editor dialog box](#) topic.
- **Delete**--Click Delete to delete a custom button or a copy of a system button. This option is not available if you select a system button.
- **Edit**--Click Edit to make changes to the button you've selected. Authorware displays the [Button Editor dialog box](#). The button you're editing appears in the preview area and its description appears in the Button Description field. As you edit the button, the preview area shows how the button will look.
  - When you select a system button, Authorware asks if you want to make a copy of that button. You can edit copies of system buttons by changing how the label looks and by adding sounds. You can't add graphics to copies of system buttons.
  - When you select a custom button, you can edit the button by adding or deleting graphics, changing how the label looks, and adding or deleting sounds.

## The Button Editor

You can use the Button Editor dialog box to create new buttons or edit existing buttons by adding or deleting graphics, hiding or showing the button's label, and adding or deleting a sound.

Click a part of the dialog box for more information:



Buttons are saved with the piece in which you create them. When you open a piece the next time, those buttons are in the Button Library dialog box.

**Tip:** If you want to create a collection of buttons you can use in any piece, save a models that contains those buttons. For instructions, see the sidebar "Custom button collections" in Chapter 4, "Creating Interactions," in *Using Authorware*.

Each button can have three basic attributes: a graphic, a label, and a sound. Each button can also include variations, called "states," which depend on what the user is doing or whether the button is disabled. By defining different attributes for each of the button's states, you can provide feedback when the user interacts with a button. For example, you can add a sound to a button that plays when the user clicks the button.

For each button, you first set up its attributes for the Normal state and then define variations for any of the other states.

## State (Button Editor)

Each button has four normal states and four checked states. The checked state indicates that a button is preselected.

Each button has four normal states. The radio and checkbox buttons also have four checked states, which indicate that the button is selected.

When you click each state, the preview area shows the graphic and label in effect for that state. The drop-down lists or pop-up menus below the preview area show the corresponding options. Until you define different attributes, all buttons for the Normal states have the same attributes as those in the Up state.

- **Up**--This is how the button normally looks in a presentation window (when the mouse button is not pressed and the mouse is not positioned over the button).
- **Down**--This is how the button looks and sounds when the user clicks the button (the mouse is down). A common design technique is to highlight a button when the user clicks it, to provide visual feedback. When the user releases the mouse, the button reverts to its Up state, which creates the illusion of a flash.
- **Over**--This is how the button looks and sounds when the user positions the mouse over the button.
- **Disabled**--This is how the button looks when the option is not available. Disabled buttons are normally dimmed.

The checkbox button and the radio button also have a checked state that corresponds to each of the normal states. This is how the button appears when you want to show it as being selected. Because standard buttons can't be checked, the Checked options are dimmed when you select a standard button.

- **Up and Checked**--This is how the checked button normally looks in the presentation window.
- **Down and Checked**--This is how the checked button looks and sounds when the user clicks the button.
- **Over and Checked**--This is how the checked button looks and sounds when the user positions the mouse over the button.
- **Disabled**--This is how the checked button looks when it's not available.

## **Button Description (Button Editor)**

Use this field to enter up to 80 characters for a new button description. If you're editing an existing button, you can edit its current description in this field. The first line you enter appears in the Description column of the Button Library dialog box.



## Automatically Check (Button Editor)

Select this option to automatically create buttons that toggle from the checked state to the normal state when the user clicks them. This option is particularly useful for checkboxes and radio buttons. You can also use the variable `Checked` to see whether the button has been checked or to toggle the button's state from checked to unchecked. For more information, see "Checked" in *Authorware Reference*.

## **Preview area (Button Editor)**

If you're creating a new button this area is blank. If you're editing a button, it contains the button you selected in the Button Library dialog box. As you create or edit the button, this area shows how the button will appear to the user for each of the states you select. By clicking each state, you can verify that all buttons work correctly for all states.

When you create custom buttons, you can arrange different button components by dragging them in the preview area. You cannot drag system buttons you're editing in the preview area.

## Graphic (Button Editor)

From this drop-down list or pop-up menu, choose an option for the button's graphic for each state.

### Drop-down list options for Normal state Up:

- **Use Imported**--Use the imported graphic. (This option is available only when you've imported a graphic.)
- **None**--Don't use a graphic.

### Drop-down list options for Normal state Down, Over, or Disabled:

- **Use Imported**--Use the imported graphic. (This option is available when you imported a graphic other than the one you chose for Up.)
- **None**--Don't use a graphic.
- **Same as Up**--Use the same graphic that you imported for Up.

### Drop-down list options for Checked state Up:

- **Use Imported**--Use the imported graphic. (This option is available when you imported a graphic other than the one you chose for Up.)
- **None**--Don't use a graphic.
- **Same as Up**--Use the same graphic that you imported for up.

### Drop-down list options for Checked state Down, Over, or Disabled:

- **Same as Up & Checked**--Use the same graphic that you imported for Up & Checked.
- **None**--Don't use a graphic.
- **Use Imported**--Use the imported graphic. (This option is available when you imported a graphic other than the one you chose for Up & Checked.)

## **Import (for graphic) (Button Editor)**

Click Import to import a graphic for a button. The standard Import dialog box appears, in which you can select the file you want to import. If you select a system button as the basis of a new button, the Import button is dimmed; you cannot assign a graphic to a button that is based on a system button.

You can import any image in a compatible format. Select the file that contains the image you want and click the Paste button. For details, see the [Importing graphics](#) topic.

You can also use the Paste command on the Edit menu to paste a graphic you've copied to the clipboard. And you can cut, copy, and paste a graphic you've imported from one state to another, or from a custom button to an image editing application.

To paste a graphic that's on the clipboard, select the state you want to use the graphic for and then choose Paste from the Edit menu.

To cut or copy a button graphic, select the state where the graphic appears, select the graphic, and then choose Cut or Copy from the Edit menu.

## Label (Button Editor)

From this drop-down list or pop-up menu you can choose whether or not to display a button's label for each state.

**Note:** To create a label, enter it into the Button Name field in the Button Options dialog box.

### Drop-down list options for Normal state Up:

- **Show Label**--Use the label in the Button Name field.
- **None**--Don't use a label.

### Drop-down list options for Normal state Down, Over, and Disabled:

- **Show Label**--Use the label in the Button Name field.
- **Same as Up**--Use the same setting you selected for Up.
- **None**--Don't use a label.

### Drop-down list options for Checked state Up, Down, and Over:

- **Show Label**--Use the label in the Button Name field.
- **Same as Up**--Use the same setting you selected for Up & Normal.
- **None**--Don't use a label.

### Drop-down list options for Checked state Disabled:

- **Show Label**--Use the label in the Button Name field.
- **Same as Up & Checked**--Use the same label that was chosen for Up & Checked.
- **None**--Don't use a label.

## Label Alignment (Button Editor)

Select an option to align the label in a button on the left, on the right, or in the center.

## Sound (Button Editor)

From this drop-down list or pop-up menu, choose an option for the button's sound for each state.

### Drop-down list options for Normal state Up:

- **Use Imported**--Use the imported sound. (This option is available if you imported a sound.)
- **None**--Don't use a sound.

### Drop-down list options for Normal state Down, Over, and Disabled:

- **Same as Up**--Use the same sound that was chosen for Up.
- **None**--Don't use a sound.
- **Use Imported**--Use the imported sound. (This option is available if you imported a sound other than the one you chose for Up.)

### Drop-down list options for Checked state Up:

- **None**--Don't use a sound.
- **Use Imported**--Use the imported sound. (This option is available if you imported a sound other than the one you chose for Up.)
- **Same as Up**--Use the same sound that was chosen for Up.

### Drop-down list options for Checked state Down, Over, and Disabled:

- **Same as Up & Checked**--Use the same sound that was chosen for Up & Checked.
- **None**--Don't use a sound.
- **Use Imported**--Use the imported sound. (This option is available if you imported a sound other than the one you chose for Up & Checked.)

## Import (for sound) (Button Editor)

Click Import to import a sound for a button. The standard Import dialog box appears, in which you can select the file you want to import. To import a sound, locate the sound file and click Paste.

For details about importing sounds, see "Loading sounds" in Chapter 2, "Working with Contents," in *Using Authorware*. For information about the options associated with sound icons, see the Sound Options dialog box topic.

**Note:** If you load a sound for the normal state, that sound does not play the first time the button is displayed. However, the sound is played when Authorware returns to the normal state--after the user releases the mouse button, for example.



## **Play** **(Button Editor)**

Click Play to test the sound you've imported.

## Cursors

Choose Cursors to display the Cursors dialog box, which contains the standard system cursors for your type of computer.

The left column of the dialog box shows what the cursors look like. The right column identifies the type of cursor (standard or custom) and the number that corresponds to the cursor, which you can use to define a cursor with the `SetCursor` function. (See "SetCursor" in *Authorware Reference*.) For custom cursors, the Description column also shows how many icons use that cursor. On Windows, custom cursors can be black and white only.

You can use the following buttons of the Cursors dialog box to work with custom cursors:

- **Add**--Click Add to display a file-selection dialog box in which you can locate the file with a cursor you want to copy. In the file, display the Cursors dialog box, select the cursor you want and click OK. The cursor appears in the Cursors dialog box and you can use it in your piece.
- **Edit**--This option is available only for custom cursors you added. Click Edit to display a file-selection dialog box, from which you can select a file with a cursor to replace the selected cursor.
- **Delete**--Click Delete to delete the custom cursor you selected in the Cursors dialog box. You cannot delete the system cursors.

## Effects

Choose Effects to display the Effects dialog box. The dialog box appears differently depending on which options you have selected for the Calculate Initial Position field. Click a setting of this field for to see the dialog box:

No (default setting)

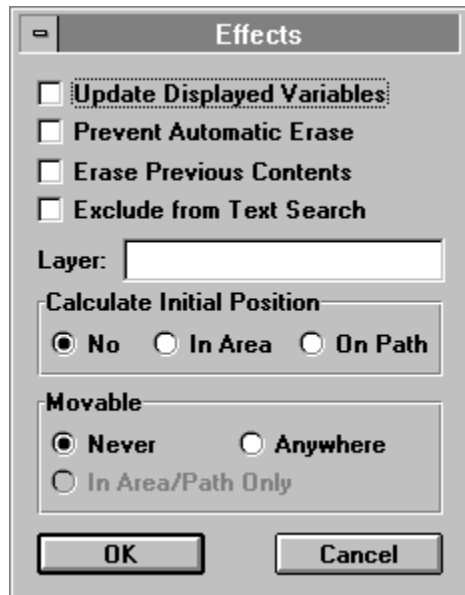
In Area

On Path

The options in the top portion of the dialog box control how text, graphics, interactions, digital movies, and the values of variables are displayed; the remaining options affect display positioning.

## Effects dialog box (Calculation Initial Position: No)

Click a part of the dialog box for more information:

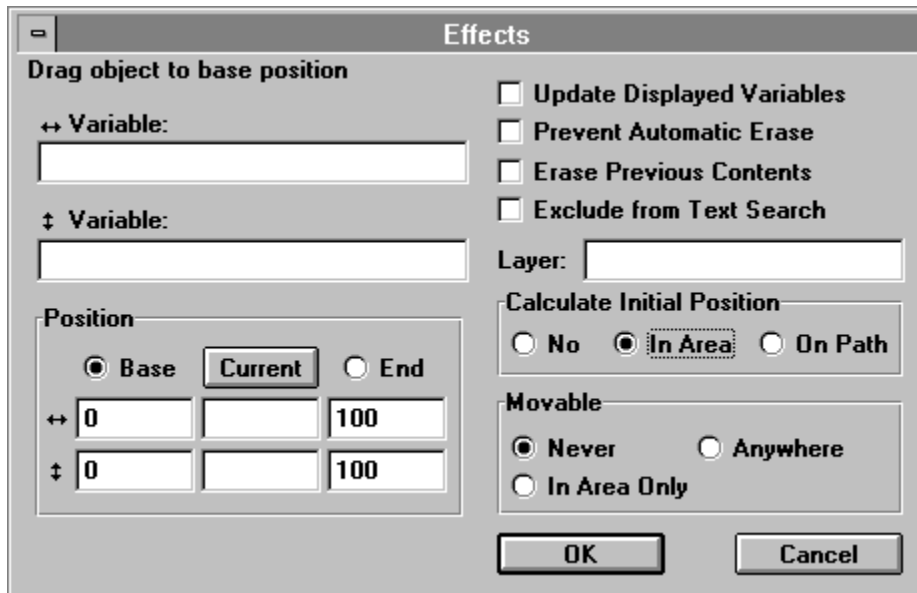


The image shows a software dialog box titled "Effects". It contains several settings:

- Four unchecked checkboxes: **Update Displayed Variables**, **Prevent Automatic Erase**, **Erase Previous Contents**, and **Exclude from Text Search**.
- A text field labeled "Layer:".
- A section titled "Calculate Initial Position" containing three radio buttons: **No** (selected), **In Area**, and **On Path**.
- A section titled "Movable" containing three radio buttons: **Never** (selected), **Anywhere**, and **In Area/Path Only**.
- At the bottom are "OK" and "Cancel" buttons.

## Effects dialog box (Calculation Initial Position: In Area)

Click a part of the dialog box for more information:



The image shows a software dialog box titled "Effects". It is divided into several sections for configuring object behavior. The "Drag object to base position" section has two empty text boxes for "Variable:". The "Position" section has three radio buttons: "Base", "Current" (which is selected), and "End". Below these are two rows of three input fields each, with the first field in each row containing the number "0" and the last field containing "100". The "Calculate Initial Position" section has three radio buttons: "No", "In Area" (which is selected and has a dashed border), and "On Path". The "Movable" section has three radio buttons: "Never" (selected), "Anywhere", and "In Area Only". On the right side, there are four unchecked checkboxes: "Update Displayed Variables", "Prevent Automatic Erase", "Erase Previous Contents", and "Exclude from Text Search", followed by a "Layer:" label and an empty text box. At the bottom are "OK" and "Cancel" buttons.

**Effects**

Drag object to base position

↔ Variable:

↑ Variable:

**Position**

☒ Base ☒ **Current** ☐ End

↔

↑

☐ Update Displayed Variables

☐ Prevent Automatic Erase

☐ Erase Previous Contents

☐ Exclude from Text Search

Layer:

**Calculate Initial Position**

☐ No ☒ **In Area** ☐ On Path

**Movable**

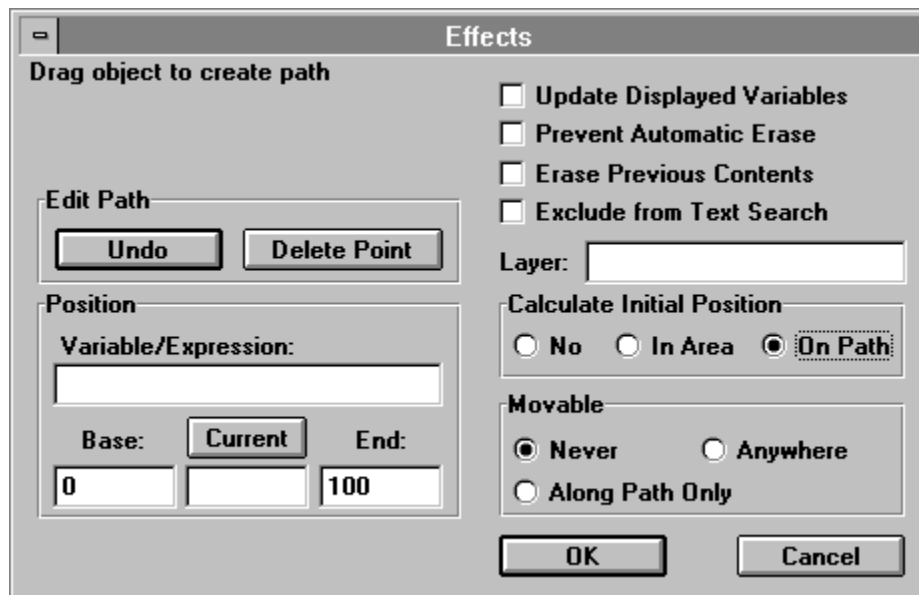
☒ **Never** ☐ Anywhere

☐ In Area Only

**OK** **Cancel**

## Effects dialog box (Calculation Initial Position: On Path)

Click a part of the dialog box for more information:



The image shows a software dialog box titled "Effects". It contains several sections for configuring an effect. At the top left, there is a section "Drag object to create path". Below it is an "Edit Path" section with "Undo" and "Delete Point" buttons. The "Position" section includes a "Variable/Expression:" text field, a "Base:" dropdown set to "Current", and an "End:" dropdown set to "100". On the right side, there are four unchecked checkboxes: "Update Displayed Variables", "Prevent Automatic Erase", "Erase Previous Contents", and "Exclude from Text Search". Below these is a "Layer:" text field. The "Calculate Initial Position" section has three radio buttons: "No", "In Area", and "On Path" (which is selected). The "Movable" section has three radio buttons: "Never" (selected), "Anywhere", and "Along Path Only". At the bottom are "OK" and "Cancel" buttons.

**Effects**

Drag object to create path

**Edit Path**

Undo Delete Point

**Position**

Variable/Expression:

Base: Current End: 100

☐ Update Displayed Variables

☐ Prevent Automatic Erase

☐ Erase Previous Contents

☐ Exclude from Text Search

Layer:

**Calculate Initial Position**

☐ No ☐ In Area ☒ On Path

**Movable**

☒ Never ☐ Anywhere

☐ Along Path Only

OK Cancel

## Effect drop-down list (Effects dialog box)

Use the Effect options to display a special effect when the selected display icon displays text or graphics. For example, the Iris In effect expands the display outward from its center. When you select an effect, Authorware immediately shows the result on the display.

The erase icon uses the same effects as the display icon, except that it uses them when erasing a display. When you use the same effect to erase one icon and to display the next icon, the effect appears as a single effect.

The effect you assign to an icon applies to all text and graphics in the icon. If you want special effects to apply to a single text or graphic object, put the object in its own icon. Create the text or graphics in the icon before assigning an effect to the icon, so you can preview how different effects will look.

You can erase externally stored digital movies, but Authorware does not apply effects while erasing them.

**Tip:** Effects are most effective when applied to fairly small display objects. In general, the smaller the object, the smoother the effect. Effects also have the greatest impact when used sparingly and consistently.

## **Update Displayed Variables (Effects dialog box)**

Select this option to display the values of variables embedded in text objects as the values are updated. To embed a variable, create a text object and enter the variable surrounded by brackets; for example {Time}. You can use this option to display information that changes throughout a piece, such as the user's score or the time.

Continually updating displays can slow down performance.



### **Prevent Automatic Erase (Effects dialog box)**

Select this option to prevent objects in a display icon or a digital movie icon from being erased by the automatic erase options set up in other icons. For example, this setting overrides the setting defined in the interaction icon's Erase Interaction option and in the result icon's Erase Feedback option. The only way to remove a display protected by this option is to use an erase icon.

## **Erase Previous Contents** **(Effects dialog box)**

Select this option to erase in a single step all displays that have built up from previous display icons. When you select this option, Authorware erases all objects from previous display icons before displaying the contents of the selected display icon.

### **Exclude from Text Search (Effects dialog box)**

Select this option to exclude the selected icon from a text search initiated by the user. This option affects any text in text objects that are in the icon.

## Layer (Effects dialog box)

In this field, you can set up the selected icon's layer, which determines its position relative to other objects on the screen. You can specify layer numbers for internal digital movies, animated objects, and displays. Higher layer numbers are closer to the front.

By default, displays are placed in layer 0. Objects whose layers have higher numbers appear in front of those whose layers have lower numbers. Objects in layers greater than 0 are optimized for erasing and animation.

**Tip:** If you notice a jerkiness at the beginning of an animation, try setting a layer greater than 0. However, performance may be degraded if too many objects are in layers greater than 0.

When you're playing several digital movies or animations at once and a digital movie icon is selected, the number (or variable) in the Layer field of the selected movie controls which movie appears in front and which appears behind the others. External movies always play in front of everything else. Internal movies can be layered in front of or behind other objects, such as graphics and buttons. The lowest value a movie layer can have is 1 (the top layer); if you assign a value less than 1, Authorware moves it to layer 1.

## Calculate Initial Position (Effects dialog box)

Use these options to determine where an object is positioned when it is displayed. Authorware provides the following options:

- **No**--Select this option if you want the object to appear at the location it was created or imported.
- **In Area**--Select this option to position the display at some point within an area you define. Using this option involves dragging the object to define the area and using variables or expressions to define the object's position in the area.

When you select the In Area option, the object is positioned in an area based on the values of the variables in the two Variables fields. In the following example, those variables are the custom variables `TargetPosition X` and `TargetPosition Y`.

- **On Path**--Select this option to position the display at a point somewhere between the endpoints of a path. Using this option involves dragging a marker to create a path and using a variable or expressions to position the object along the path.

When you use the On Path option, the object is positioned along a path, based on the value of the variable or expression in the Variable/Expression field. In the following example, that variable is the custom variable `bounce`.

For instructions on how to use these options to define an object's position when it is displayed, see "Positioning objects on a path" and "Positioning objects within an area" in Chapter 7, "Moving Objects," in *Using Authorware*.

## Movable (Effects dialog box)

Use these options to determine whether the user can move an object. Authorware provides the following options:

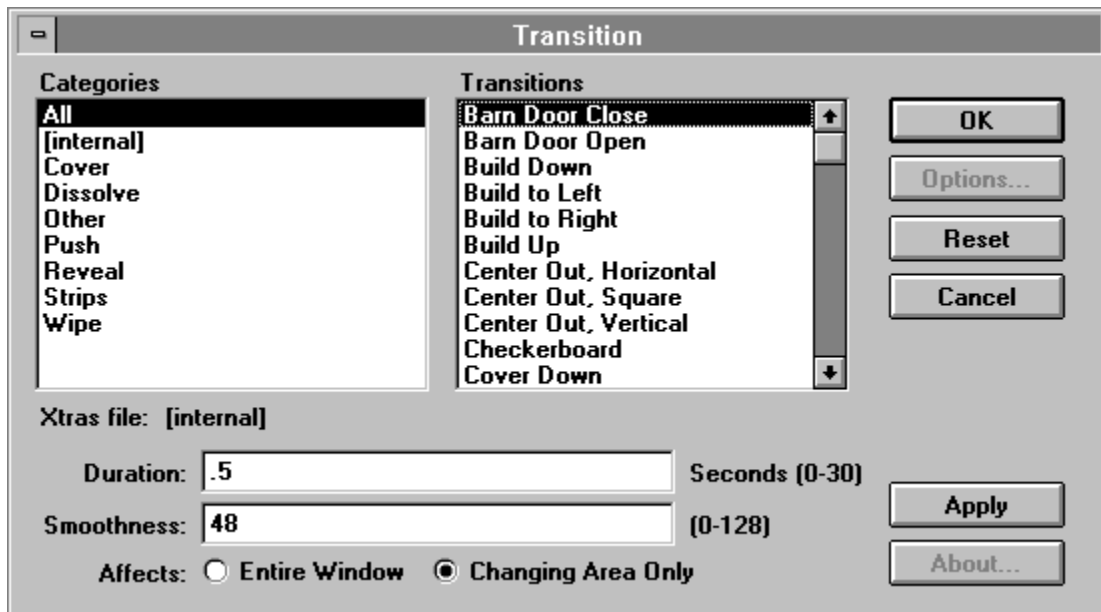
- **Never**--Select this option when you don't want the user to move the object.
- **Anywhere**--Select this option to let the user move the object anywhere, including off the screen.
- **In Area/Path Only**--Select this option to let the user move the object within the area or on the path you set up with the Calculate Initial Position option. This option is often used with target area responses, where the user drags an object to a specific area.

For more information, see "Letting users drag objects" in Chapter 7, "Moving Objects," in *Using Authorware*.

**Note:** You can move all objects while authoring. Choose Run from the Try It menu, select the object, and move it.

## Transition

Choose Transition to display the Transition dialog box. Click a setting of this field for to see the dialog box:



Authorware 3.5 is the first Authorware release to incorporate Macromedia Open Architecture (MOA), a new development standard that provides consistency and flexibility across the Macromedia product line. MOA supports the use of Xtras extensions that add new capabilities. Since MOA is a common standard for all Macromedia products, the same Xtra can work with more than one product.

Authorware 3.5 includes the Director Transitions Xtra as well as transition Xtras from Xaos Tools, Inc., and SharkByte Tools. Other software developers will introduce additional Xtras to enhance the capabilities of Authorware and other Macromedia products.

The Director Transitions Xtra provides the complete set of more than 50 transitions from Macromedia Director. The internal transitions (formerly effects) that were available in previous Authorware versions are still available, along with new options never before available in Authorware. You can:

- Vary the duration of a transition from 0 to 30 seconds

- Vary the smoothness

- Choose whether a transition affects the entire presentation window or just the changing area.

Skillful use of transitions can increase the effectiveness of multimedia productions. With the expanded choice of transitions in Authorware 3.5, you can dramatize information with greater impact and enhance the overall aesthetics of your pieces. For example, you can use the Push transition to slide a new screen over an old one, or use Dissolve to slowly reveal a test answer or graphic.

You can also use variables and expressions to set duration and smoothness. For example, you can create a custom variable for the duration of one transition used frequently in a piece, and assign its value in a calculation icon at the beginning. Later, if you decide the transition should run slightly faster throughout the piece, just change the value of your custom variable.

### Using Xtras

To be available to Authorware, Xtras need to be in one of three locations on your hard disk. When you distribute a piece, remember to include Xtras that you've used with your piece and install them into one of the same three locations on the user's hard disk:

Windows 95 and Windows NT:

A35W\Xtras\

Program Files\Common Files\Macromedia\Xtras\folder containing Authorware piece\Xtras\

Windows 3.1:

A35W\XTRAS\

WINDOWS\MACROMED\XTRAS\

directory containing Authorware piece\XTRAS\

Macintosh:

Authorware 3.5 Folder:Xtras:

System Folder:Macromedia:Xtras: folder containing Authorware piece :Xtras:

If you're using the 16-bit version of Authorware in Windows 95 or Windows NT, Xtras need to be in one of the three locations listed for Windows 3.1.



## Categories (Transition dialog box)

Select a category that includes the transition you want to apply, or select All to view all available transitions.

## Transitions (Transition dialog box)

Select the transition you want to apply in this field.

### **Xtras file (Transition dialog box)**

The Xtras file field shows the file and directory path that contains the transition selected in the Transitions field. If the transition selected is one of the built-in Authorware transitions, this field says "[Internal]."

For more information , see *What's New in Authorware 3.5*.

### **Duration (Transition dialog box)**

This specifies how long it will take for the transition to take place. .

## **Smoothness (Transition dialog box)**

This specifies the smoothness (or granularity) of the applied transition. Use 0 to obtain the smoothest transition; use higher numbers to obtain coarser transitions.

### **Affects (Transition dialog box)**

Specify whether you want the transition to apply to the whole presentation window or to be limited to the boundaries of the selected icon's display objects.

## Options (Transition dialog box)

For some transitions, you can specify options that fine-tune the transition.

## **Reset (Transition dialog box)**

Click this button to reset the selected transtion's Duration, Smoothness, and Options to the default settings. Also reset is whether or not the transition applies to the entire window or the changing area only.



### **Apply (Transition dialog box)**

Click this button to Apply the selected transition and settings to the selected icon. A preview of the transition will appear in the presentation window.

## About (Transition dialog box)

For some transitions, click this button to see further information.

## Lines

Choose Lines to display a palette from which you can determine the thickness of lines or the thickness of the borders of ovals, rectangles, and polygons. Text and bitmaps are not affected by the Lines command. Choosing the dotted option creates an invisible line; which is useful for eliminating the borders of objects. You can also set up the endpoints for arrows.

If one or more objects are selected, the line option you choose affects all selected objects and resets the default setting. If no object is selected, Authorware resets the default line option.

**Tip:** You can also display the Lines palette by double-clicking the line tool in the toolbox.

## Fills

Choose Fills to display a palette from which you can select a fill pattern for any object except for text, bitmaps, and lines.

Fills are based on two colors, a foreground color and a background color. The foreground color is shown as black, the background color is shown as white. You can change these colors by using the Colors dialog box (choose Color from the Attributes menu).

**Note:** Images created with previous Authorware versions on the Macintosh may contain different fill patterns for the border and for the inside of the image. You can import these images, but you cannot edit the fill patterns.

If one or more objects that can be filled are selected, the fill option you select affects all the selected objects and resets the default setting. If no object is selected, Authorware resets the default fill option.

**Tip:** You can also display the Fills palette by double-clicking the polygon, rounded rectangle, or rectangle tool in the toolbox.

## Modes

Choose Modes to display a palette from which you can determine the effect of overlaying one display object over another.

Click a part of the dialog box for more information:



These modes use an object's display layer and foreground and background colors to set up the mode. (You can set up the object layers by choosing Bring to Front or Send to Back from the Attributes menu. Set the foreground and background colors by choosing the Color command.)

**Tip:** You can also display the Modes palette by double-clicking the pointer tool in the toolbox.

## Opaque mode

In opaque mode, an object covers the background. The colored areas of the object show up as color and the white areas show up as white.

Bitmapped objects in opaque mode are displayed twice as quickly and use up half as much memory as in other modes. Opaque is the default mode for bitmapped objects.

## Matted mode

Matted mode is similar to opaque mode. However, for bitmapped objects, all white space is removed from the edges of the object. White space in the interior of the object is preserved.

## Transparent mode

In transparent mode, an object's colored areas cover the background. The background shows through any white areas.



## Inverse mode

On a white background, inverse mode displays an object normally. However, if the background contains colored areas, the object's colored areas are inverted and its white areas become transparent.

The inverse mode does not use an exact optical inverse of a color. The color chosen is based on the object color, the color of the object directly underneath, the video driver, and the color palette. If you move a Macintosh piece to a Windows computer, you can select different inverse colors.

**Tip:** When you place an object directly over an inverse copy of itself, the object disappears.

## Erase mode

Erase mode makes an object invisible if the object is displayed on the background color you've selected in the File Setup dialog box. However, if the object's background color is different from the file's background color, the object's foreground areas appear as the background color you've set for the file and its background areas are transparent.

Erase mode produces unpredictable results for color bitmapped objects.

## Color

Choose Color to display a dialog box from which you can assign colors to the interiors and borders of ovals, polygons, rounded rectangles, and rectangles. You can also assign colors to text objects and to user text responses. If you use fill patterns, you can define a different color for the foreground pattern and the background and assign colors for lines, monochrome bitmaps, and any range of characters within a text object.

Use the Color palette to select colors and use the other tools to define the objects to which color is applied.

- Use the pen color for lines; for the borders of rectangles, rounded rectangles, ovals, and polygons; and for text.
- Use the foreground and background color chips to define the colors for the interiors of rectangles, rounded rectangles, ovals, and polygons. If you selected a fill pattern, you can assign a color to the foreground and another to the background. These options also affect imported monochrome bitmapped graphics and the background color that shows up behind text.

**Tip:** You can also display the Color palette by double-clicking the oval tool in the toolbox.

**Note:** You can load custom palettes for Windows. If you're designing cross-platform pieces that will be delivered on 16-color VGA systems, select the Use VGA Palette option on the Macintosh. For more information, see the [File Setup](#) topic.

## **Bring to Front**

Objects are automatically layered within a display according to the order in which they are drawn, pasted, or imported. Bring to Front and Send to Back change the order of the layers.

Choose Bring to Front to move the selected object to the top layer.

## **Send to Back**

Objects are automatically layered within a display according to the order in which they are drawn, pasted, or imported. Bring to Front and Send to Back change the order of the layers.

Choose Send to Back to move the selected object to the bottom layer.

## Show Tool Bar

Choose Show Tool Bar to display the tool bar. You can use the buttons on the tool bar as shortcuts for menu commands. Instead of choosing a command from the menu bar, simply click the corresponding icon in the tool bar.

Click a tool bar button in the illustration below for more information:



## **New file button (Tool bar)**

Click this button to create a new file. For details, see the [New file](#) topic.

## Open file button (Tool bar)

Click this button to open a file. For details, see the [Open File](#) topic.



## **Save file button (Tool bar)**

Click this button to save the current file. For details, see the [Save](#) topic.

**Cut button  
(Tool bar)**

Click this button to cut the selected item.

## **Copy button (Tool bar)**

Click this button to copy the selected item to the Clipboard. For details, see the [Copy](#) topic.

Authorware supports copying text with formatting information (RTF) text. For more information about RTF text, see the [Importing RTF text](#) topic.

## **Paste button (Tool bar)**

Click this button to paste an item from the Clipboard. For more information, see the [Paste](#) topic.

## Undo button (Tool bar)

Click this button to undo the last operation. For details, see the [Undo](#) topic.

## Styles list (Tool bar)

Select one of the named styles from this list to apply it to selected text. For more information about named styles, see the [Apply Styles](#) topic.

## **Bold button** **(Tool bar)**

Click this button to make the selected text bold. For more information, see the [Text Style submenu](#) topic.

## Italics button (Tool bar)

Click this button to make the selected text italic. For more information, see the [Text Style submenu](#) topic.



## **Find/Change button (Tool bar)**

Click this button to display the Find/Change dialog box. For more information, see the [Text Style submenu](#) topic.

## Show Connections button (Tool bar)

Click this button to display the Show Connections dialog box. For more information, see the [Show Connections](#) topic.

## Show Variables button (Tool bar)

Click this button to display the Variables dialog box. For more information, see the [Show Variables](#) topic.

## **Run/Run from Flag button (Tool bar)**

Click this button to run the piece. If you inserted a start flag, Authorware runs the file from the flag. For more information, see the [Run](#) and [Run from Flag](#) topics.

## **Bug button (Tool bar)**

Click this button to display the trace window. For more information, see the [Trace Window](#) topic.

## **Help button (Tool bar)**

Click this button to display the help system. For more information, see the [Using Authorware Help](#) topic.

## Show Grid

Choose Show Grid to display a reference grid in the presentation window, which you can use to position objects precisely. Grid lines are spaced 32 pixels apart. If the grid is displayed, choose Show Grid to hide it.

Grid lines don't appear in the packaged piece.

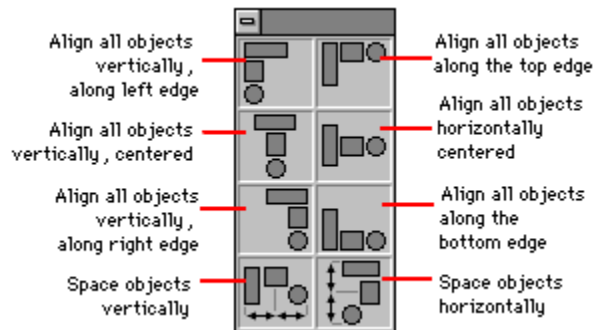
## **Snap to Grid**

Choose Snap to Grid to cause any object you move to snap to the nearest grid intersection, or to the nearest intersection of horizontal and vertical lines spaced 8 pixels apart. This option is useful for positioning objects. To turn off this option, choose Snap to Grid again.



## Align Objects

Choose Align Objects to display a palette that contains the options for aligning objects. You can align imported objects, objects created with the toolbox, or buttons created by response icons attached to interaction icons, so that the objects line up precisely and are evenly spaced.



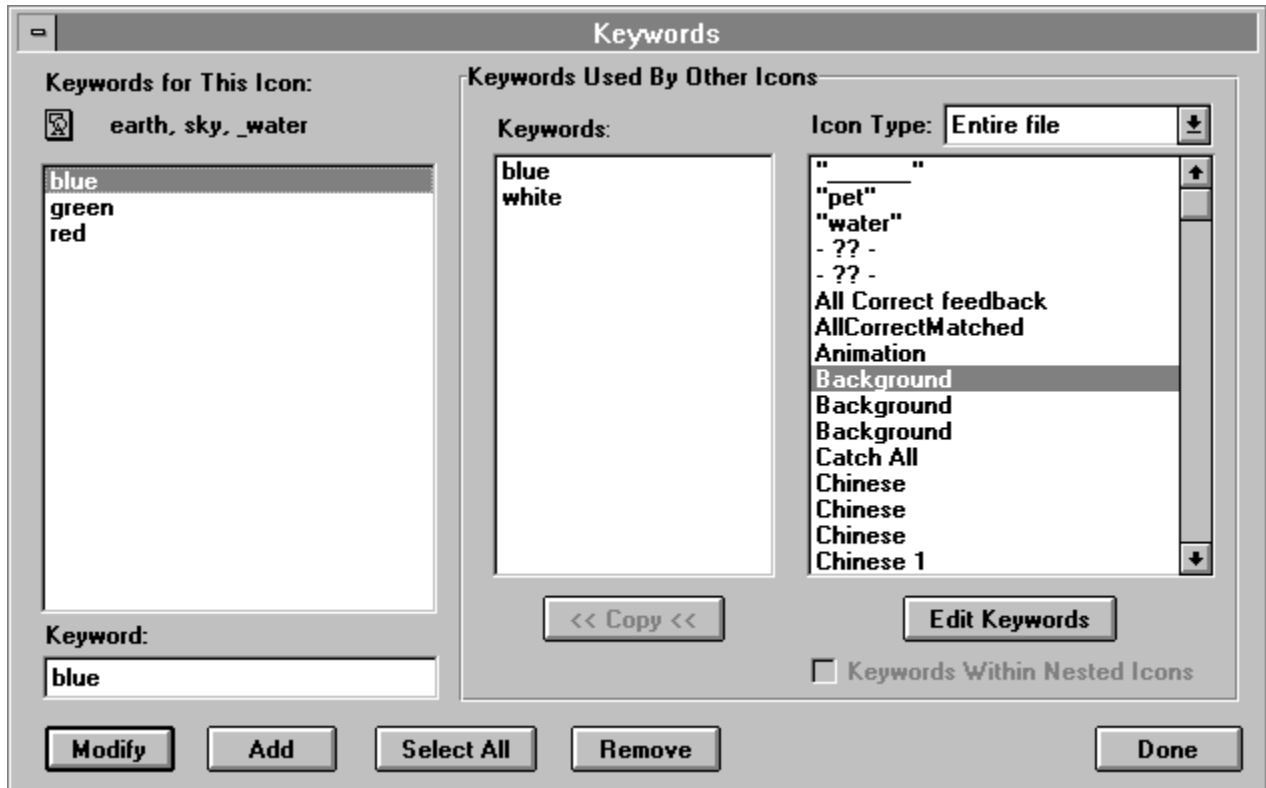
To align objects, select at least two objects and then select one of the alignment options.

To space objects evenly, either horizontally or vertically, select one of the bottom options. Authorware determines the correct spacing, depending on the number of objects selected.

## Keywords

Choose Keywords to display the dialog box in which you can attach keywords to icons. Although you can use keywords to find icons while you're authoring, the Keywords feature was designed to set up ways to help the user to find information.

Click a part of the dialog box for more information:



If you've created several framework structures that contain many digital movie clips, you could assign several keywords to each movie, such as the country the movie was made in, the director's name, the main actors' names, and the type of movie. Users can then search for all movies by a particular director or for all adventure movies, for example.

There are two ways to attach keywords to the selected icon:

- Attach new keywords one at a time
- Browse keywords that are already attached to other icons and copy one or more keywords to the icon.

## Keywords For This Icon (Keywords dialog box)

This list shows the keywords that are already attached to the selected icon. Keywords are sorted in alphabetical order. You can select keywords in this list and modify or remove them.

**Tip:** To select a range of keywords, hold down the Shift key as you drag over the desired words. To select several keywords that aren't next to each other, hold down the Control key as you click the each word.

### **Keyword field (Keywords dialog box)**

In this field, enter the keyword you want to attach to the selected icon and then click the Add button. If you select a keyword from the Keywords For This Icon list, it appears in this field. You can edit the keyword and then click the Modify button.

## Keywords Used By Other Icons (Keywords dialog box)

You can use the items in this area to display existing keywords for any icon in the file, to copy keywords to the icon you selected, and to select new icons to which you want to assign keywords.

- **Keywords**--This list shows the keywords attached to the icon you select in the list on the right. You can select keywords in this list and copy them to the icon shown in the upper left corner of the dialog box.
- **Icon Type**--Select either the Entire File option to display all the icons in the file, or select the type of icon you want to display.
- **List**-- If you selected Entire File from the Icon Type options, Authorware displays the icons in alphabetical order. If you selected one of the icon types, Authorware displays all icons of that type.

When you select one of these icons, any keywords attached to the icon appear in the Keywords list in the middle of the dialog box.

If you click the Edit Keywords button, the icon you selected becomes the active icon.

- **Edit Keywords**--Click Edit Keywords to make the icon you selected in the list the active icon, so that you can assign keywords to it. The icon appears in the upper left corner, and any icons attached to it appear in the Keywords For This Icon list.
- **Copy**--Click Copy to attach any keywords selected in the Keywords list to the active icon shown in the upper left corner. These keywords appear in the Keywords For This Icon list.
- **Show Keywords Within Nested Icons**--If you selected a map icon, a framework icon, an interaction icon, or a decision icon, selecting this option displays the keywords of those icons as well as the keywords of any icons attached to them. This option makes it possible to show the keywords associated with several related icons.

**Modify**  
**(Keywords dialog box)**

Click Modify to change the keyword you selected in the Keywords For This Icon list to match the text you entered in the field.

## **Add** **(Keywords dialog box)**

Click Add to assign the keyword you entered in the field to the selected icon. The word appears in alphabetical order in the Keywords For This Icon list. You can also press Enter to assign the keyword entered in the field.

**Select All**  
**(Keywords dialog box)**

Click Select All to select all keywords in the list. You can now click Remove to remove them all.



**Remove**  
**(Keywords dialog box)**

Click Remove to remove any keywords selected in the Keywords For This Icon list.

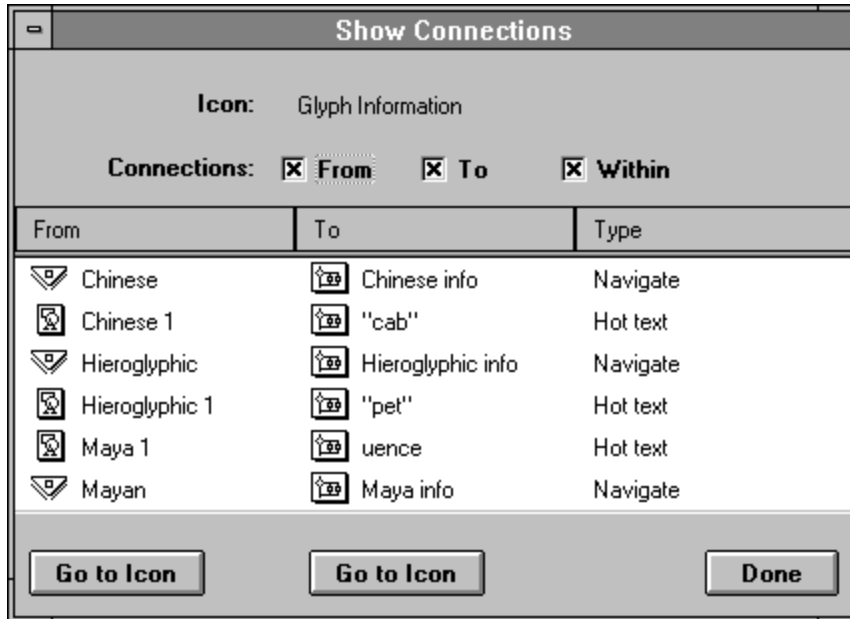
**Done**  
**(Keywords dialog box)**

Click Done to close the Keywords dialog box when you're finished working with keywords.

## Show Connections

Choose Show Connections to display a dialog box that shows all connections between the selected icon and other icons (except for library links and OLE links, which have their own dialog boxes).

Click a part of the dialog box for more information:



You can display in a list connections from the icon, to the icon, or both. From the list, you can go to the icon on the flowline that is at either end of the connection. If the selected icon is a framework icon or a map icon, you can also show connections between icons within that structure. For each connection, Authorware identifies the connection type, which can be one of the following types:

- **Erase**, which includes connections between an erase icon and any icons whose contents it erases.
- **Motion**, which includes connections between a motion icon and any icons whose contents it moves.
- **Video**, which includes connections between a video icon and any icons where Authorware overlays the video on the display.
- **Expression**, which includes connections created by statements that use the `variable@"IconTitle"` formulation in a calculation icon, in embedded text, or in a condition field of an options dialog box.
- **Navigate**, which includes navigation links between a navigate icon and the destination page.
- **Hot text**, which includes hyperlinks between hot text and the destination page.

**Icon**  
**(Show Connections dialog box)**

This area shows the title of the icon you selected.

## Connections (Show Connections dialog box)

Use these options to set up the connections you want to see.

- **From**--Select this option to see connections from the selected icon.
- **To**--Select this option to see connections to the selected icon.
- **Within**--Select this option to see connections within a framework structure or a map icon.

## List of connections (Show Connections dialog box)

The list shows all connections for the options you selected. Depending on these options, the From and To columns show the icons that are the source or the destination of the selected icon. The Type column identifies the type of connection.

## **Go to Icon** **(Show Connections dialog box)**

Click Go to Icon to go to the connection you selected in the list. If you click the button under the From column, Authorware goes to the icon that is the source of the connection; the button under the To column takes you to the icon that is the destination.

**Done**  
**(Show Connections dialog box)**

Click Done to close the Show Connections dialog box.



## Font submenu

Choose Font to display a list of fonts and choose one to apply to the selected text.

The fonts that appear in the Font submenu are those that are currently installed on your computer. If you have more fonts installed than will fit in the Font submenu, Authorware lists the most recently used fonts at the top of the menu; an **Other** category appears at the bottom of the menu from which you can choose additional fonts.

You can also use the Font command to apply a font to the field of an interaction display, which affects the text the user enters.

## Size submenu

Choose Sizes to display a list of sizes and choose one to apply to the selected text. You can also define a custom size or apply the next larger or the next smaller size to the text.

For bitmapped fonts, the Size submenu shows the available sizes. For scalable fonts, the Size submenu shows a selection of standard sizes. Use the Other command to specify a custom size. If you specify a custom size, a checkmark appears next to the Other command.

Scalable font sizes can range from 1 point to 10,000 points. For bitmapped fonts, if you choose a size that is not available, Authorware uses the nearest available size or whole multiple of an available size.

## Other

Choose Other to display the Font Size dialog box, in which you can specify a custom font size that does not appear in the list. Enter the size you want in the Font Size text entry box and see the effect in the preview box.

## Style submenu

Choose Style to display a list of formatting attributes and choose one to apply to the selected text.

Formatting attributes include Plain, Bold, Italic, Underline, Outline, Shadow, Subscript, and Superscript. Select as many of these options as you like.

**Note:** To determine how text entered by the user appears, apply text attributes to the field of an interaction display.

If you plan to use a combination of these attributes and other Text options repeatedly, you can use the Define Styles command to combine them into a single named style. If you later change one or more attributes in the named style, any text with that style also changes automatically throughout the piece.

Library files can contain references to styles, so each library file contains its own independent set of styles and font names. To edit the styles or fonts in a library make the library window active.

## Alignment submenu

Choose Alignment to display the three alignment choices and choose the one you want.

- Choose **Left Align** to align the text along the left margin.
- Choose **Center** to center the text.
- Choose **Right Align** to align the text along the right margin.
- Choose **Justify** to align the text along the right and left margins.

The alignment option you choose affects the current paragraph. If a text object does not contain paragraphs, these commands affect the entire object.

## Scrolling Text

Choose Scrolling Text to create scrolling text fields for the selected text. You can use scrolling fields to define the bottom margin of a text field. Scrolling fields are also useful for displaying large amounts of text or for displaying chunks of text that vary in length.

Keep in mind that users may not want to scroll through large amounts of text. Instead, consider using a series of display icons separated by wait icons instead of scrolling text fields.

If you applied the transparent, inverse, or erase mode to the text object, the text may scroll slowly, depending on what's behind it.

## Apply Styles

**Related topics:** [Copying named styles between Authorware files](#)  
[Define Styles](#)

Choose Apply Styles to display the styles palette with a list of named styles. You can apply one or more of these styles to the selected text. You can also use the styles list in the tool bar to apply a style to selected text. Until you create named styles with the Define Styles command, the styles palette and the styles list don't contain any styles.

If the selected text contains a single named style, a check appears next to the style's name. If a style does not apply to the entire range or if the style does not apply to all of the selected text objects, the check is gray.

To remove a named style from selected text, click the name of the style you want to remove. The check next to the style's name disappears. If you do this and the text does not look like the default style, the formatting attributes were probably applied directly, rather than with a named style.

**Tip:** To return control to the default style, select the text and reapply the default style. Authorware removes any formatting attributes that were applied directly.

When more than one named style is applied to range of text, that text contains the combined attributes of both styles. The attributes of the text that starts first automatically apply to any text that starts later, unless you specifically define another attribute for the later style. It's as though the attribute for the style that starts first is the first layer whose style shows through. As a result, the text in the smallest text range contains the attributes of any other text ranges.

## Copying named styles between Authorware files

To copy named styles between files, you paste text, an icon, or a model that contains the styles into the new file. The styles appear automatically in the Define Styles list, in the styles palette, and in the styles list in the tool bar.

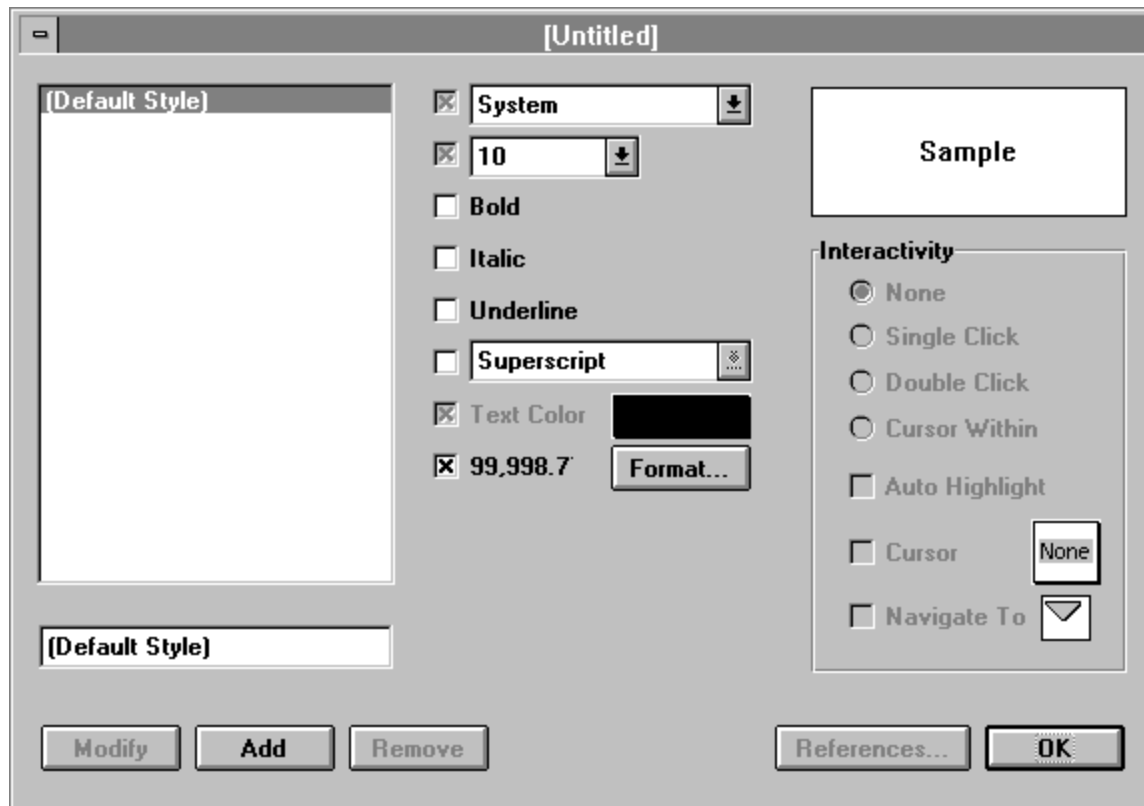
When you copy icons that contain text into a file, any named styles are copied automatically, unless there are duplicate names. Styles with the same name and the same text attributes are combined.

If the styles have the same name but different attributes, Authorware displays a dialog box in which you can determine whether to keep both styles.

## Define Styles

Choose Define Styles to display a dialog box in which you can create new named styles or change, rename, or delete existing named styles.

Click a part of the dialog box for more information:



Each named style consists of a combination of formatting attributes such as size, font style, and color. Named styles do not, however, contain paragraph attributes such as margins, indents, and tabs.

Named styles can also contain interactivity attributes. If you apply a named style with interactivity attributes to text, you can then create a hyperlink between that text and any page in the piece. While you can apply formatting attributes directly to selected text without creating a named style, the interactivity attributes must be part of a named style. Named styles do not, however, contain paragraph attributes such as margins, indents, and tabs.

For files created with previous versions of Authorware, you can create named styles using the combination of formatting attributes that was used in those files. Each library file has its own independent set of named styles.

After you create named styles, they appear in the list on the left side of the dialog box.

To apply styles you create in the Define Styles dialog box, use the styles list on the tool bar or choose Apply Styles from the Text menu to display the styles palette.



## List of styles (Define Styles dialog box)

This list contains all named styles for the piece. To display the formatting and interactivity attributes assigned to each style, select it in the list.

At the end of the list are the unnamed style combinations, which contain the formatting attributes you applied by using the Font, Size, and Style commands. Authorware automatically creates descriptive titles for these combinations, such as Helvetica Size 14 Bold. If the attributes include a color other than black or white, which are listed as such, it simply shows "Color." To see the color, click the Color chip. You can create named styles based on these unnamed styles; this is particularly useful for files created with previous versions of Authorware.

Unnamed styles do not appear in the styles palette or the styles list in the tool bar until you name them. To name an untitled style, select it, enter a name in the field, and click the Modify button.

**Text field**  
**(Define Styles dialog box)**

In this field enter a name for a new style or a new name for the style selected in the list.

## **Modify** **(Define Styles dialog box)**

To modify an existing style, select it in the list, select the new attributes or enter a new name, and click Modify.

## **Add** **(Define Styles dialog box)**

To create a new style, click Add and enter its name in the field. Then select the desired formatting and interactivity attributes and click Modify. The style appears in the list, in the styles palette, and in the styles list in the tool bar.

## **Remove** **(Define Styles dialog box)**

Click Remove to delete the selected style. Deleting styles that you don't use keeps the styles palette and the styles list in the tool bar uncluttered. The Remove button is dimmed if the style you select is used by any text objects in the piece. (Click the References button to see which icons use the named style.)

## **References**

### **(Define Styles dialog box)**

Click References to display a dialog box from which you can display the Text Style References dialog box. This dialog box lists the icons that use the style you selected and shows the total number of icons that use the style.

### **Show Icon**

Click Show Icon to go to the icon you selected in the list. Authorware highlights that icon on the flowline.

**Done**  
**(Define Styles dialog box)**

Click Done to save any changes and to close the dialog box.

## Formatting attributes (Define Styles dialog box)

Use these options to define the formatting attributes for each named style. The Font and Size options define the default style, which applies to all text objects until you change it. For more information about using the Default style, see the sidebar [Edit Navigation](#).

If the checkbox for an attribute contains a check, the attribute is part of the style. If the checkbox is empty, the attribute is not defined. You can use different formatting attributes together, except for the Subscript and Superscript attributes, which are mutually exclusive.

- To create a new style or to modify a style selected in the list, define the attributes, the color, and the number format you want.
- To define a color for the style, select the Color option, double-click the color chip, and then select a color from the palette that appears.
- The number to the left of the Format button shows the default format for numbers. To change this format, select the option and then click the Format button to display the Number Format dialog box. For more information, see the [Number Format](#) topic.



## **Sample**

### **(Define Styles dialog box)**

This area shows how the attributes you selected will affect the text.

## Interactivity attributes (Define Styles dialog box)

Use the Interactivity options to create named styles that turn text into hot text. Hot Text is text that works like a button: you set up a hyperlink between the hot text and a page that's attached to a framework icon, and when the user clicks the hot text, Authorware goes to the page. For instructions, see "Navigating with hot text" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

Use the following options to set up the interactivity attributes for a named style:

- **None**--The named style is not interactive.
- **Single Click**--Select this option to set up a single-click as the trigger for the hyperlink.
- **Double Click**--Select this option to set up a double-click as the trigger for the hyperlink.
- **Cursor Within**--Select this option to trigger the hyperlink when the user positions the cursor over the hot text.

### Auto Highlight

Select this option to display an inverse image of the hot text before executing the hyperlink that goes to the destination page. This action appears as a flash to the user and provides visual feedback that something is happening.

### Cursor

Select this option and click the Cursor button to display the Cursors dialog box, where you can select a different cursor that appears when the user positions the cursor over the hot text. For more information, see the [Cursors](#) topic.

### Navigate To

Select this option to make the definition of the hyperlink part of the definition of the style.

There are two ways to set up the hyperlink between hot text and a destination page:

- You can use the Navigate To option to define the hyperlink at the same time you define the hot text style. That gives every text selection you apply the style to the very same navigation settings. For example, if you select a specific page as the definition of the hyperlink, clicking any hot text that the style's applied to takes you to that page. You can also use a variable or expression to define the destination so that even if the navigation settings are exactly the same, the destination can be different for different instances of hot text you've applied the style to. For an example, see "Using an expression to go to a page" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.
- You can define the hyperlink separately from the style that contains the interactivity attributes. When you apply the style to text, the text becomes hot, but it has as yet no destination. The Navigate To dialog box appears automatically so you can select the destination and the other navigation settings you want to use.

To make the definition of the hyperlink part of the definition of the style, select the checkbox next to Navigate To and then click Navigate Icon button. The Navigate To dialog box appears. Select the settings you want to set up the destination of the hyperlink.

For more information about the options in the Navigate To dialog box, see "Navigate icon" on page 24;

see also "Navigating with hot text" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

## Edit Navigation

Choose Edit Navigation to set up or redefine a hyperlink between hot text and a destination page. Select the hot text for which you want to edit the hyperlink and then choose Edit Navigation. The Navigate To dialog box appears, in which you can set up or redefine the hyperlink. For more information, see "Navigating with hot text" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

## Run

Choose Run to start running a piece from the beginning of the flowline. The presentation window appears and is cleared of any text and graphics it contains. Variables are reset to their initial values.

You can choose the Run command while editing in either the design window or the presentation window.

## Run from Flag

Choose Run from Flag to run the piece from the position of the white start flag. This command is available when you place the start flag somewhere in the design window. Start and stop flags are useful when you are working on a particular segment of the piece.

## **Pause/Proceed**

Choose Pause or Proceed to stop or resume the piece. If you pause at an interaction that contains active response areas such as buttons, the response areas appear outlined. You can now edit those areas or move them to different locations on the screen.

## Show Current Icon

Choose Show Current Icon to display and highlight the last icon that was shown in the presentation window. If necessary, Authorware opens the design window that contains the icon. This option is available from either the design window or the presentation window.



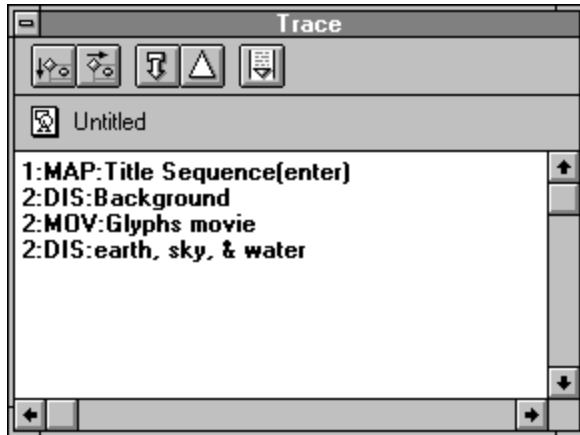
## **Jump to Icons/Jump to Display**

To switch between editing in the design window and editing in the presentation window, choose Jump to Icons/Jump to Display. This command is particularly useful when the presentation window takes up the full screen.

## Trace Window

Choose Trace Window to open the Debugger Trace window, in which information is displayed about each icon as it is executed.

Click a button the trace window for more information:



By looking at this window, you can see which icon Authorware is about to execute and keep track of those icons that have already been executed. This collection of information is called a trace; you are, in essence, tracing Authorware's every step.

The Debugger Trace window is particularly useful when you can't tell the order in which icons are executed by looking at the flowline. For example, if your piece contains many navigation links or perpetual interactions, the icons are probably executed in a different order each time the piece is run.

You can resize the Debugger Trace window so that it shows all of the trace information. For each icon in the window, the following information is displayed:

- The level of the icon's flowline
- The icon type
- The icon title
- When stepping over map icons or branching structures, that Authorware successfully entered or exited the map or structure
- The result of the Trace function, which can be any message or the value of a variable at a particular location in the piece

You can use the `Trace` function to display messages attached to icons or to display the values of variables at certain positions in the piece. For example, you could drag a calculation icon to the flowline and enter the expression `Trace("starting section 3")`. When Authorware executes that calculation icon, it displays starting section 3 in the Debugger Trace window. For more information about the `Trace` function, see *Authorware Reference*.

## **Step Over button (Trace window)**

Click the Step Over button to execute all icons in a map icon in a single step. When you select this option, the window shows only the map icon and the fact that Authorware entered and exited the icon.

Use the Step Over option to get close to the problem area and then use the Step Into option or set the stop flag where you want to begin the trace.

## **Step Into button (Trace window)**

Click the Step Into button to execute the icons in a map icon one at a time. When you select this option, the window shows each icon in the map.

For both options, when Authorware encounters icons that require the user to interact with them (such as wait icons, interaction icons, or framework icons) the presentation window is displayed so you can respond as the user would. Authorware then executes the next icon and displays information about it in the Debugger Trace window.

## **Reset/Reset From Flag button (Trace window)**

### **Reset button**

Click the Reset button to reset the trace. Authorware displays a line in the trace window and starts a new trace from the beginning. When you place a start flag on the flowline, Authorware replaces the Reset button with the Reset From Flag button.

### **Reset From Flag button**

Click the Reset From Flag button to reset the trace and start a new trace from the start flag's location. When you remove the start flag from the flowline, Authorware replaces the Reset From Flag button with the Reset button.

## **Resume/Pause button (Trace window)**

### **Resume button**

Click the Resume button to start running a piece or to resume the piece from where it's been paused. When a piece is running, the Resume button is replaced by the Pause button.

### **Pause button**

Click the Pause button to stop a piece when it's running. You can also pause a piece by placing the stop flag on the flowline. When a piece is paused, the Pause button is replaced by the Resume button.

### **Trace On/Off button (Trace window)**

Click the Trace On/Off button to turn off the display of the trace information. When this option is off, Authorware does not display trace information about each icon until you click the button again. This option is useful if you're only interested in a particular section and don't want to see all the details for a trace.

## Step Into

Choose Step Into when you want to display information about every icon in a map icon or in a branching structure. This option provides the most detailed level of information--use it when you want to troubleshoot a particular map or structure.

You can use the Step Into button in the Debugger Trace window as a shortcut to this command.



## Step Over

Choose Step Over when you want to skip over information in map icons or in branching structures. When you choose this option, Authorware only displays a message that it entered and exited the map or structure. This provides a higher level of information to speed up the debugging process. For example, if you see that Authorware entered a map icon, but didn't exit it, you could then use the Step Into command to examine the flow inside the map icon in more detail.

You can use the Step Over button in the Debugger Trace window as a shortcut to this command.

## Help command

Displays the help window you are viewing now.

**Keyboard shortcut:** F1

**Related topics:** [Help Pointer](#), [Using Authorware Help](#)

## Help Pointer command

Choose Help Pointer to get context-sensitive help. The cursor changes into a question mark. When you point this cursor at a command or at a dialog box and click, Authorware displays the information about that command or dialog box. To cancel context-sensitive help, press the Escape key or choose Help Pointer command again.

**Keyboard shortcut:** Shift-F1

**Related topics:** [Help command](#), [Using Authorware Help](#)

## About Authorware

Choose About Authorware to display the version number, the serial number, and the name of the registered user for the copy of Authorware you are using. Click the display or press any key to close this window.

## Display icon

You typically use the display icon to display text and graphics. To create contents for display icons, you can either import text and graphics or use the toolbox. For details about the toolbox, see the [Toolbox](#) topic.

To create new contents or to edit existing contents, open the display icon in one of three ways:

- Double-click the display icon on the flowline.
- Run the file. When Authorware encounters an empty display icon, it pauses the presentation and displays the toolbox.
- Double-click the icon's contents in the presentation window when running the file.

**Tip:** To keep previously displayed items in the presentation window when you open a display icon, press the Shift key while you double-click the icon.

To preview the contents of a display icon (or those of an interaction, sound, or digital movie icon) from the design window without opening the icon, click the icon with the right mouse button.

You can also select the icon, choose the Get Info command from the Edit menu, and click the Preview button to display the icon's contents. If necessary, Authorware scales the contents and displays the scaling percentage in the upper left corner of the preview window. When you're finished, click the Close button to close the preview window.

## Motion icon

**Related topic:**     [Motion Type dialog box](#)

Use motion icons to set up animations that move display objects, including digital movies, from one location on the screen to another, within the amount of time or at the speed you specify. Motion icons move the display objects in a display, digital movie, or interaction icon that comes before the motion icon on the flowline. All the display objects in that icon move together.

There are five motion types, three types that move the object directly to its new location and two types that move the object along a path. Click any of these for more information:

- [To Fixed Point \(Direct to Point\)](#)
- [To Calculated Point on Line \(Direct to Line\)](#)
- [To Calculated Point on Grid \(Direct to grid\)](#)
- [To End \(Path to End\)](#)
- [To Calculated Point \(Path to Point\)](#)

Each motion type has its own set of options. To display the Motion Type Options dialog box, double-click the motion icon in the design window. Then select a motion type and set up the options for that type.

You can preview the objects to be moved by clicking the motion icon with the right mouse button. Or you can select the motion icon, choose Get Info from the Edit menu, and click the Preview button. Then click anywhere to make the preview disappear.

For instructions on how to set up motion icons, see "Setting up motion icons" in Chapter 7, "Moving Objects," in *Using Authorware*.

### Variables related to the motion icon

The following system variables are particularly useful when working with motion icons:

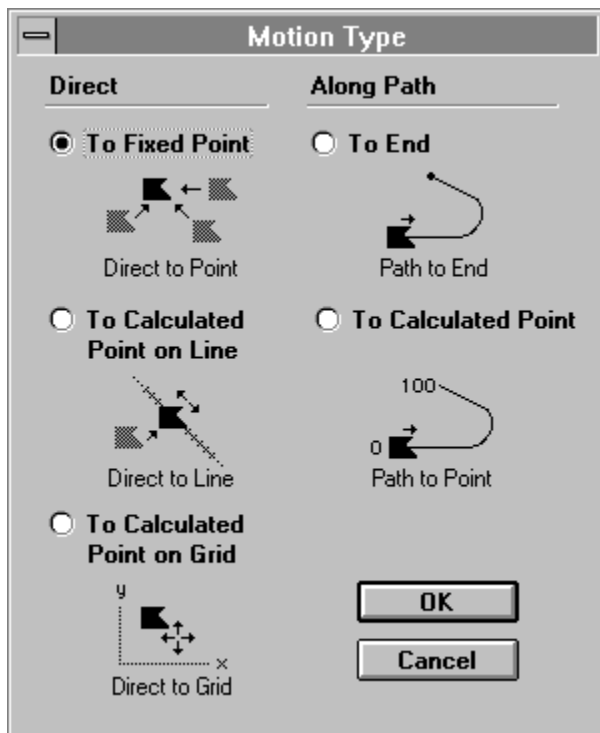
- `Animating`--Indicates whether a specific icon is being moved by a motion icon.
- `Moving`--Indicates whether the display in a specific icon is being moved by a motion icon or dragged by the user.
- `DisplayX`, `Display Y`--Specify the position of the display or movie in the icon's presentation window.
- `PathPosition`--Specifies the position of the display object in the icon if the object has been positioned on a path.
- `PositionX`, `Position Y`--Specify the horizontal and vertical positions of the display if it has been moved in an area.

See Chapter 3 in *Authorware Reference* for more information on these variables.

## Motion Type dialog box

In this dialog box you choose a motion type for the motion icon you're editing.

Click a motion type for more information:



## To Fixed Point (Direct to Point) Options

Use the options in this dialog box to set up the motion icon to move an object in a straight line from its current location to its destination. Click a part of the dialog box for more information:





## Rate (Direct to Point Options dialog box)

In the Rate field you specify the number of seconds it will take to move the object, given the timing option you select (Speed or Time). You can enter a number such as 3, 1.75, or 10 or a variable or expression. When you first drag an object to its destination, Authorware automatically records in the Rate field the number of seconds you took to move the object.

- **Speed**--Select this option to move the object about 72 pixels (about one inch) during the time you specify in the Rate field. For example, if you select this option and type 10 in the Rate field, the object moves about 72 pixels every 10 seconds.

Use the speed option to make sure that an object moves at the speed you specify, regardless of the distance it moves. Controlling the speed can be important when you're synchronizing the motion of several objects or when you're moving objects relative to each other. For example, a speed-controlled animation set to 4 seconds will move twice as fast as one set to 8 seconds.

- **Time**--Select this option to specify how long it takes to move the object. For example, if you select this option and type 10 in the Rate field, the animation takes 10 seconds, regardless of the distance to be covered.

## Concurrency (Direct to Point Options dialog box)

Use these options to determine when Authorware presents a motion icon, relative to the icons that follow it on the flowline.

- **Wait Until Done**--Select this option to wait until Authorware finishes moving the object before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to immediately execute the icons that follow the motion icon, so that their contents are presented while Authorware is moving the object. This option is useful when you want to move two or more objects simultaneously or when you want to play a sound while moving an object.

## Layer

### (Direct to Point Options dialog box)

In this field you can specify the layer number for the motion icon. By default, objects in the presentation window are layered in the order in which they appear on the flowline. Objects that are being moved appear in front of any stationary objects during the animation.

The motion icon with the highest layer number moves its objects on top of any other objects. You can specify the layer number in the Layer field by entering any positive or negative number or a variable or expression. (Leaving the Layer field blank assigns the animation a layer number of 0.) For example, if you enter 10 in the Layer field, Authorware moves the objects in this icon on top of the objects of any icons with a layer number of less than 10. If two animations with the same layer number overlap, the animation that started last appears on top.

Here are some points about layering to keep in mind:

- Movies for which the Direct to Screen option is selected always play in the top layer, above all other graphics.
- The Layer option only affects objects while they are being moved. If the motion of one of several overlapping objects stops, that object's layer is reset to the value specified in the Effects dialog box; if no layer is specified there, Authorware resets the layer to 0.
- Be sure to properly set the drawing mode of objects you want to move. If an object's drawing mode is set to Transparent instead of to Opaque, other objects will show through as the object moves over them, even if the moved object is set to a higher layer number.

## **Replay**

**(Direct to Point Options dialog box)**

Click Replay to show how the animation appears on the screen, using the current options.

**Change Type**  
**(Direct to Point Options dialog box)**

Click Change Type to display the Motion Type dialog box, in which you can select a different type.

**OK**  
**(Direct to Point Options dialog box)**

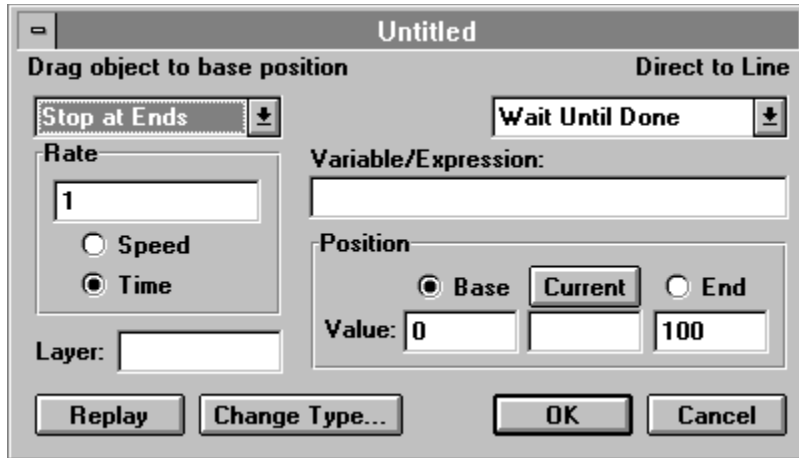
Click OK to save your entries and close the dialog box. If you select a different motion type and click OK, the options dialog box for the new motion type appears. Authorware applies any entries you made for the previous motion type to the new motion type.

**Cancel**  
**(To Fixed Point Options dialog box)**

Click Cancel to close the dialog box without making any changes.

## To Calculated Point On Line (Direct to Line) Options

Use the options in this dialog box to set up the motion icon to move an object from its location to a calculated point on a line between two end points. Click a part of the dialog box for more information:



The image shows a dialog box titled "Untitled" with a close button in the top-left corner. The dialog is divided into two main sections: "Drag object to base position" on the left and "Direct to Line" on the right. In the "Drag object to base position" section, there is a dropdown menu set to "Stop at Ends" with a small arrow icon to its right. Below this is a "Rate" section with a text input field containing the number "1", and two radio buttons labeled "Speed" and "Time", with "Time" being selected. At the bottom of this section is a "Layer:" label followed by an empty text input field. In the "Direct to Line" section, there is a dropdown menu set to "Wait Until Done" with a small arrow icon to its right. Below this is a "Variable/Expression:" label followed by an empty text input field. Underneath is a "Position" section with three radio buttons: "Base" (selected), "Current", and "End". Below the radio buttons is a "Value:" label followed by three text input fields containing the numbers "0", an empty field, and "100". At the bottom of the dialog are four buttons: "Replay", "Change Type...", "OK", and "Cancel".

Double-click the motion icon in the design window to open the Direct to Line dialog box. Check the upper right corner of the dialog box to make sure it's the right motion type; if not, click the Change Type button and change the motion type to Direct to Line.



## Beyond Range options (Direct to Line Options dialog box)

Use these options to control what happens if the value in the Variable/Expression field is outside the range of the two end points of the line (the base and end values).

- **Stop at Ends**--Select this option to move the object to the end point that is nearest to the variable's value. For example, if the base value is 5, the end value is 100, and the variable equals -5, Authorware moves the object to 5, the value on the line that is closest to -5.
- **Loop**--Select this option to move the object to an appropriate scaled position on the line. For example, if the base value is 0, the end value is 50, and the variable equals 75, Authorware moves the object to the position at 25. To determine this point, subtract the line length (50) from the value (75); the remainder (25) is the destination. During presentation, the object moves directly from its starting position to the calculated destination.
- **Go Past Ends**--Select this option to move the object to the appropriate scaled position, even if the object must be moved beyond the base or end point of the scaled line. When you use this option, think of the scaled line as infinite in length, and the base and end points as reference points on the line. If the base value is 5, the end value is 100, and the variable equals -5, the object will be moved to -5, even though that location is beyond the defined end point.

## Concurrency (Direct to Line Options dialog box)

Use these options to determine when Authorware presents a motion icon, relative to the icons that follow it on the flowline.

- **Wait Until Done**--Select this option to wait until Authorware finishes moving the object before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to immediately execute the icons that follow the motion icon, so that their contents are presented while Authorware is moving the object. This option is useful when you want to move two or more objects simultaneously or when you want to play a sound while moving an object.
- **Perpetual**--Select this option from the Concurrency drop-down list or pop-up menu to continue monitoring the value of the Variable/Expression field after Authorware exits the motion icon. If the value changes and if the object still appears in the presentation window (it has not been erased), Authorware moves the object to the location that corresponds to the new value.

When the Perpetual option is selected, Authorware always positions the object correctly, until the object is erased or until another motion icon takes control of the object.

## Rate

### (Direct to Line Options dialog box)

In the Rate field you specify the number of seconds it will take to move the object, given the timing option you select (Speed or Time). You can enter a number such as 3, 1.75, or 10 or a variable or expression. When you first drag an object to its destination, Authorware automatically records in the Rate field the number of seconds you took to move the object.

- **Speed**--Select this option to move the object about 72 pixels (about one inch) during the time you specify in the Rate field. For example, if you select this option and type 10 in the Rate field, the object moves about 72 pixels every 10 seconds.

Use the speed option to make sure that an object moves at the speed you specify, regardless of the distance it moves. Controlling the speed can be important when you're synchronizing the motion of several objects or when you're moving objects relative to each other. For example, a speed-controlled animation set to 4 seconds will move twice as fast as one set to 8 seconds.

- **Time**--Select this option to specify how long it takes to move the object. For example, if you select this option and type 10 in the Rate field, the animation takes 10 seconds, regardless of the distance to be covered.

## Layer

### (Direct to Line Options dialog box)

In this field you can specify the layer number for the motion icon. By default, objects in the presentation window are layered in the order in which they appear on the flowline. Objects that are being moved appear in front of any stationary objects during the animation.

The motion icon with the highest layer number moves its objects on top of any other objects. You can specify the layer number in the Layer field by entering any positive or negative number or a variable or expression. (Leaving the Layer field blank assigns the animation a layer number of 0.) For example, if you enter 10 in the Layer field, Authorware moves the objects in this icon on top of the objects of any icons with a layer number of less than 10. If two animations with the same layer number overlap, the animation that started last appears on top.

Here are some points about layering to keep in mind:

- Movies for which the Direct to Screen option is selected always play in the top layer, above all other graphics.
- The Layer option only affects objects while they are being moved. If the motion of one of several overlapping objects stops, that object's layer is reset to the value specified in the Effects dialog box; if no layer is specified there, Authorware resets the layer to 0.
- Be sure to properly set the drawing mode of objects you want to move. If an object's drawing mode is set to Transparent instead of to Opaque, other objects will show through as the object moves over them, even if the moved object is set to a higher layer number.

**Variable/Expression**  
**(Direct to Line Options dialog box)**

Enter a variable or expression to control where Authorware moves the object along the scaled line. This variable or expression works with the base and end values of the scaled line.

## Position (Direct to Line Options dialog box)

Use these options to define a scaled line:

- **Base and End buttons**--Click the Base button and define the base point by dragging the object to where you want the line to begin. Click the End button and define the end point by dragging the object to where you want the line to end. When you release the object, a line connects the base point and the end point.
- **Base and End fields**--Enter the values that represent the line's base and end points. You can enter either numbers or variables; their values can be positive or negative. Authorware uses these values with the variable or expression in the Variable/Expression field to scale all points between the base and end points on the line. By default, Authorware provides a base value of 0 and an end value of 100. To provide scaled fractional values or to display binary data, you can enter 0 as the base value and 1 as the end value.
- **Current Value field and button**--Use these options to see the object's location at any position on the scaled line. Enter a number in the Current Value fields and click the Current button. The object moves to the position you specified. (Authorware ignores the Current Value field during file presentation.)

## **Replay**

**(Direct to Line Options dialog box)**

Click Replay to show how the animation appears on the screen, using the current options.

**Change Type**  
**(Direct to Line Options dialog box)**

Click Change Type to display the Motion Type dialog box, in which you can select a different type.



**OK**  
**(Direct to Line Options dialog box)**

Click OK to save your entries and close the dialog box. If you select a different motion type and click OK, the options dialog box for the new motion type appears. Authorware applies any entries you made for the previous motion type to the new motion type.

**Cancel**  
**(Direct to Line Options dialog box)**

Click Cancel to close the dialog box without making any changes.

## To Calculated Point On Grid (Direct to Grid) Options

Use the options in this dialog box to set up the motion icon to move an object from its location to a calculated point on a grid. Click a part of the dialog box for more information:

The dialog box is titled "Untitled" and has a tab labeled "Direct to Grid". It contains the following sections and controls:

- Drag object to base position**: Includes "Stop at Ends" and "Wait Until Done" buttons, each with a small downward arrow.
- Rate**: A numeric input field containing "1", and two radio buttons labeled "Speed" and "Time".
- Layer**: A text input field.
- Position**: Includes three radio buttons labeled "Base", "Current", and "End". Below them is a table of coordinates:

↔	0		100
↑↓	0		100
- Bottom row**: Four buttons labeled "Replay", "Change Type...", "OK", and "Cancel".

Double-click the motion icon in the design window to display its options. Check the upper right corner of the dialog box to make sure it's the right motion type; if not, click the Change Type button and change the motion type to Direct to Grid.

## Beyond Range options (Direct to Grid Options dialog box)

You can use these options to control what happens if the value specified in the Variable/Expression field is outside the range of the grid defined by the horizontal and vertical base and end values.

- **Stop at Ends**--Select this option to move the object to some point on the grid or to one of its corners. If the values of the variables are outside the grid's range, Authorware moves the object to the position closest to the value of the variable. For example, if the base points are 0,0, the end points are 50, 50, and the values of the variables are -5, -5, the object will be moved to 0, 0, which is the position on the grid that is closest to -5, -5.
- **Loop**--Select this option to move the object to a scaled position on the grid. For example, if the base value is 0, 0, the end value is 50, 50, and the values of the variables are 75, 75, Authorware moves the object to the 25, 25 position. During presentation, the object moves directly from its starting position to the calculated destination.
- **Go Past Ends**--Select this option to move the object to the appropriate scaled position, even if the object must be moved outside the grid. When you use this option, think of the grid as infinite in size, and the base and end points as reference points in the area. For example, if the base value is 5, 5, the end value is 100, 100 and the values of the variables are -5, -5, the object will be moved to -5, -5 even though this location is outside the grid.

## Concurrency (Direct to Grid Options dialog box)

Use these options to determine when Authorware presents a motion icon, relative to the icons that follow it on the flowline.

- **Wait Until Done**--Select this option to wait until Authorware finishes moving the object before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to immediately execute the icons that follow the motion icon, so that their contents are presented while Authorware is moving the object. This option is useful when you want to move two or more objects simultaneously or when you want to play a sound while moving an object.
- **Perpetual**--Select this option from the Concurrency drop-down list or pop-up menu to continue monitoring the values in the Horizontal and Vertical Variables fields after Authorware exits the motion icon. If either value changes, and if the object still appears in the presentation window, Authorware moves the object to the location that corresponds to the new value. For example, if the value of the Horizontal variable changes, Authorware immediately moves the object horizontally.

When the Perpetual option is selected, Authorware ensures that the object is always correctly positioned, until the object is erased or until another motion icon takes control of the object.

### **Horizontal and vertical variables (Direct to Grid Options dialog box)**

Enter a variable or expression into each of these fields to determine where Authorware moves the object on the grid. These variables or expressions work with the horizontal and vertical base and end values you set up for the grid.

## Rate

### (Direct to Grid Options dialog box)

In the Rate field you specify the number of seconds it will take to move the object, given the timing option you select (Speed or Time). You can enter a number such as 3, 1.75, or 10 or a variable or expression. When you first drag an object to its destination, Authorware automatically records in the Rate field the number of seconds you took to move the object.

- **Speed**--Select this option to move the object about 72 pixels (about one inch) during the time you specify in the Rate field. For example, if you select this option and type 10 in the Rate field, the object moves about 72 pixels every 10 seconds.

Use the speed option to make sure that an object moves at the speed you specify, regardless of the distance it moves. Controlling the speed can be important when you're synchronizing the motion of several objects or when you're moving objects relative to each other. For example, a speed-controlled animation set to 4 seconds will move twice as fast as one set to 8 seconds.

- **Time**--Select this option to specify how long it takes to move the object. For example, if you select this option and type 10 in the Rate field, the animation takes 10 seconds, regardless of the distance to be covered.

## Layer

### (Direct to Grid Options dialog box)

In this field you can specify the layer number for the motion icon. By default, objects in the presentation window are layered in the order in which they appear on the flowline. Objects that are being moved appear in front of any stationary objects during the animation.

The motion icon with the highest layer number moves its objects on top of any other objects. You can specify the layer number in the Layer field by entering any positive or negative number or a variable or expression. (Leaving the Layer field blank assigns the animation a layer number of 0.) For example, if you enter 10 in the Layer field, Authorware moves the objects in this icon on top of the objects of any icons with a layer number of less than 10. If two animations with the same layer number overlap, the animation that started last appears on top.

Here are some points about layering to keep in mind:

- Movies for which the Direct to Screen option is selected always play in the top layer, above all other graphics.
- The Layer option only affects objects while they are being moved. If the motion of one of several overlapping objects stops, that object's layer is reset to the value specified in the Effects dialog box; if no layer is specified there, Authorware resets the layer to 0.
- Be sure to properly set the drawing mode of objects you want to move. If an object's drawing mode is set to Transparent instead of to Opaque, other objects will show through as the object moves over them, even if the moved object is set to a higher layer number.



## Position (Direct to Grid Options dialog box)

Use these options to define a grid.

- **Base and End buttons**--Click the Base button and define the base corner by dragging the object to where you want the upper left corner of the grid to begin. Click the End button and define the end corner by dragging the object to where you want the lower right corner of the grid to end. When you release the object, a dotted rectangle outlines the grid.
- **Base and End fields**--These fields contain the numeric values of the grid's base and end corners. These values work with the variables or expressions in the Vertical and Horizontal Variable fields. Authorware scales all points in the area between the base and the end points. By default, Authorware provides base values of 0, 0 and end values of 100, 100. You can enter numbers or variables; their values can be positive or negative. To provide scaled fractional values or to display binary data, you can enter 0, 0 as the base value and 1, 1 as the end value.
- **Current Value field and Current button**--Use these options to see the object's location at any position on the grid. Enter a number in the Current Value fields and click the Current button. The object moves to the scaled position you specified. (Authorware ignores the Current Value field during file presentation.)

## **Replay**

**(Direct to Grid Options dialog box)**

Click Replay to show how the animation appears on the screen, using the current options.

**Change Type**  
**(Direct to Grid Options dialog box)**

Click Change Type to display the Motion Type dialog box, in which you can select a different type.

**OK**  
**(Direct to Grid Options dialog box)**


Click OK to save your entries and close the dialog box. If you select a different motion type and click OK, the options dialog box for the new motion type appears. Authorware applies any entries you made for the previous motion type to the new motion type.

**Cancel**  
**(Direct to Grid Options dialog box)**

Click Cancel to close the dialog box without making any changes.

## To End (Path to End) Options

Use the options in this dialog box to set up the motion icon to move an object from its location along a path to the end point of the path. The path can consist of straight and curved segments. Click a part of the dialog box for more information:



The dialog box is titled "Untitled" and has a close button in the top-left corner. It contains the following elements:

- Click object to be moved**: A label on the left side.
- Path to End**: A label on the right side.
- Edit Path**: A section containing two buttons: **Undo** and **Delete Point**.
- Wait Until Done**: A button with a dropdown arrow.
- Rate**: A section containing a text box with the value "1" and two radio buttons: **Speed** (unselected) and **Time** (selected).
- Motion When TRUE:**: A text box.
- Layer:**: A text box.
- Replay**, **Change Type...**, **OK**, and **Cancel**: Buttons at the bottom.

To display the Path to End Options dialog box, double-click the motion icon in the design window. Check the upper right corner of the dialog box to make sure it's the right motion type; if not, click the Change Type button and change the motion type to Path to End.

## Edit Path (Path to End Options dialog box)

Use these options to change the segments that define the path along which the object is moved.

- **Undo**--Click Undo to reverse the last change you made to a point on the path.
- **Delete Point**--Click Delete Point to delete the point you selected. The segment now stretches between the two points on either side of the deleted point

## Concurrency (Path to End Options dialog box)

Use these options to determine when Authorware presents a motion icon, relative to the icons that follow it on the flowline.

- **Wait Until Done**--Select this option to wait until Authorware finishes moving the object before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to immediately execute the icons that follow the motion icon, so that their contents are presented while Authorware is moving the object. This option is useful when you want to move two or more objects simultaneously or when you want to play a sound while moving an object.
- **Perpetual**--Select this option from the Concurrency drop-down list or pop-up menu to monitor the condition in the Move When True field after Authorware exits the motion icon. Whenever the variable or expression in this field becomes true, Authorware moves the object immediately (unless the object has been erased).

When the Perpetual option is selected, Authorware ensures that the object is always correctly positioned, until the object is erased or until another motion icon takes control of the object.



## Rate

### (Path to End Options dialog box)

In the Rate field you specify the number of seconds it will take to move the object, given the timing option you select (Speed or Time). You can enter a number such as 3, 1.75, or 10 or a variable or expression. When you first drag an object to its destination, Authorware automatically records in the Rate field the number of seconds you took to move the object.

- **Speed**--Select this option to move the object about 72 pixels (about one inch) during the time you specify in the Rate field. For example, if you select this option and type 10 in the Rate field, the object moves about 72 pixels every 10 seconds.

Use the speed option to make sure that an object moves at the speed you specify, regardless of the distance it moves. Controlling the speed can be important when you're synchronizing the motion of several objects or when you're moving objects relative to each other. For example, a speed-controlled animation set to 4 seconds will move twice as fast as one set to 8 seconds.

- **Time**--Select this option to specify how long it takes to move the object. For example, if you select this option and type 10 in the Rate field, the animation takes 10 seconds, regardless of the distance to be covered.

### **Motion When TRUE** **(Path to End Options dialog box)**

In this field you can specify a condition. Authorware moves the object only when the condition is true; when it is false, Authorware ignores the motion icon. If you leave this field empty, Authorware moves the object only once, when it first encounters the icon.

If the condition is still true at the end of the animation, when the object has reached the end point of the path, Authorware repeats the animation. If the condition is false, Authorware does not repeat the animation.

## Layer

### (Path to End Options dialog box)

In this field you can specify the layer number for the motion icon. By default, objects in the presentation window are layered in the order in which they appear on the flowline. Objects that are being moved appear in front of any stationary objects during the animation.

The motion icon with the highest layer number moves its objects on top of any other objects. You can specify the layer number in the Layer field by entering any positive or negative number or a variable or expression. (Leaving the Layer field blank assigns the animation a layer number of 0.) For example, if you enter 10 in the Layer field, Authorware moves the objects in this icon on top of the objects of any icons with a layer number of less than 10. If two animations with the same layer number overlap, the animation that started last appears on top.

Here are some points about layering to keep in mind:

- Movies for which the Direct to Screen option is selected always play in the top layer, above all other graphics.
- The Layer option only affects objects while they are being moved. If the motion of one of several overlapping objects stops, that object's layer is reset to the value specified in the Effects dialog box; if no layer is specified there, Authorware resets the layer to 0.
- Be sure to properly set the drawing mode of objects you want to move. If an object's drawing mode is set to Transparent instead of to Opaque, other objects will show through as the object moves over them, even if the moved object is set to a higher layer number.

## **Replay**

**(Path to End Options dialog box)**

Click Replay to show how the animation appears on the screen, using the current options.

**Change Type**  
**(Path to End Options dialog box)**

Click Change Type to display the Motion Type dialog box, in which you can select a different type.

**OK**

**(Path to End Options dialog box)**

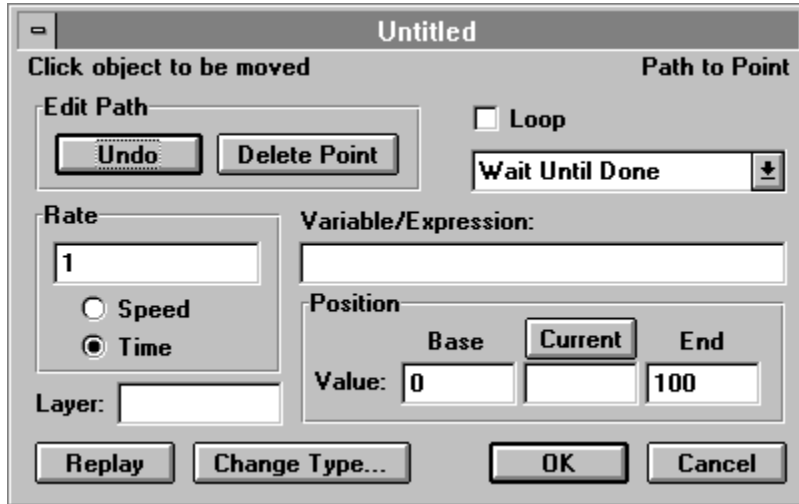
Click OK to save your entries and close the dialog box. If you select a different motion type and click OK, the options dialog box for the new motion type appears. Authorware applies any entries you made for the previous motion type to the new motion type.

**Cancel**  
**(Path to End Options dialog box)**

Click Cancel to close the dialog box without making any changes.

## To Calculated Point (Path to Point) Options

Use the options in this dialog box to set up the motion icon to move an object from its location to a calculated point along a path. The path can consist of straight and curved segments. Click a part of the dialog box for more information:



The dialog box is titled "Untitled" and has a tab labeled "Path to Point". It contains several sections for configuring motion options:

- Click object to be moved**: A label at the top left.
- Edit Path**: A section containing an "Undo" button and a "Delete Point" button.
- Loop**: A checkbox labeled "Loop" that is currently unchecked.
- Wait Until Done**: A dropdown menu with a downward arrow.
- Rate**: A section with a text input field containing the value "1". Below it are two radio buttons: "Speed" (unchecked) and "Time" (checked).
- Variable/Expression:**: A text input field.
- Position**: A section with three buttons: "Base", "Current" (selected), and "End". Below these buttons are three text input fields for "Value": the first contains "0", the second is empty, and the third contains "100".
- Layer:**: A text input field.
- Buttons**: At the bottom are four buttons: "Replay", "Change Type...", "OK", and "Cancel".

Double-click the motion icon in the design window to open the Path to Point Options dialog box. Check the upper right corner of the dialog box to make sure it's the right motion type; if not, click the Change Type button and change the motion type to Path to Point.



## Edit Path (Path to Point Options dialog box)

Use these options to change the segments that define the path along which the object is moved.

- **Undo**--Click Undo to reverse the last change you made to a point on the path.
- **Delete Point**--Click Delete Point to delete the point you selected. The segment now stretches between the two points on either side of the deleted point.

## **Loop**

### **(Path to Point Options dialog box)**

Select this option to control what happens if the value in the Variable/Expression field is outside the range of the base and end values set up for the path. If you don't select the Loop option, Authorware moves the object to the end point that is nearest to the field's value. If you select the Loop option, Authorware calculates a scaled point and moves the object to that point.

## Concurrency

### (Path to Point Options dialog box)

Use these options to determine when Authorware presents a motion icon, relative to the icons that follow it on the flowline.

- **Wait Until Done**--Select this option to wait until Authorware finishes moving the object before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to immediately execute the icons that follow the motion icon, so that their contents are presented while Authorware is moving the object. This option is useful when you want to move two or more objects simultaneously or when you want to play a sound while moving an object.
- **Perpetual**--Select this option from the Concurrency drop-down list or pop-up menu to monitor the value of the Variable/Expression field after Authorware exits the motion icon. If the value changes and the object still appears in the presentation window, Authorware moves the object to the scaled point along the path that corresponds to the new value.

When the Perpetual option is selected, Authorware ensures that the object is always correctly positioned, until the object is erased or until another motion icon takes control of the object.

## Rate

### (Path to Point Options dialog box)

In the Rate field you specify the number of seconds it will take to move the object, given the timing option you select (Speed or Time). You can enter a number such as 3, 1.75, or 10 or a variable or expression. When you first drag an object to its destination, Authorware automatically records in the Rate field the number of seconds you took to move the object.

- **Speed**--Select this option to move the object about 72 pixels (about one inch) during the time you specify in the Rate field. For example, if you select this option and type 10 in the Rate field, the object moves about 72 pixels every 10 seconds.

Use the speed option to make sure that an object moves at the speed you specify, regardless of the distance it moves. Controlling the speed can be important when you're synchronizing the motion of several objects or when you're moving objects relative to each other. For example, a speed-controlled animation set to 4 seconds will move twice as fast as one set to 8 seconds.

- **Time**--Select this option to specify how long it takes to move the object. For example, if you select this option and type 10 in the Rate field, the animation takes 10 seconds, regardless of the distance to be covered.

## Layer

### (Path to Point Options dialog box)

In this field you can specify the layer number for the motion icon. By default, objects in the presentation window are layered in the order in which they appear on the flowline. Objects that are being moved appear in front of any stationary objects during the animation.

The motion icon with the highest layer number moves its objects on top of any other objects. You can specify the layer number in the Layer field by entering any positive or negative number or a variable or expression. (Leaving the Layer field blank assigns the animation a layer number of 0.) For example, if you enter 10 in the Layer field, Authorware moves the objects in this icon on top of the objects of any icons with a layer number of less than 10. If two animations with the same layer number overlap, the animation that started last appears on top.

Here are some points about layering to keep in mind:

- Movies for which the Direct to Screen option is selected always play in the top layer, above all other graphics.
- The Layer option only affects objects while they are being moved. If the motion of one of several overlapping objects stops, that object's layer is reset to the value specified in the Effects dialog box; if no layer is specified there, Authorware resets the layer to 0.
- Be sure to properly set the drawing mode of objects you want to move. If an object's drawing mode is set to Transparent instead of to Opaque, other objects will show through as the object moves over them, even if the moved object is set to a higher layer number.

**Variable/Expression**  
**(Path to Point Options dialog box)**

In this field you can enter a variable or expression to calculate the point along the path where Authorware moves the object. This variable or expression works with the base and end values of the path.

## Position

### (Path to Point Options dialog box)

Use these options to define a scaled path.

- **Base and End fields**--Enter the values that represent the path's base and end points. You can enter either numbers or variables; their values can be positive or negative. Authorware uses these values with the variable or expression in the Variable/Expression field to scale all points between the base and end points on the path. By default, Authorware provides a base value of 0 and an end value of 100. To provide scaled fractional values or to display binary data, you can insert 0 as the base value and 1 as the end value.
- **Current Value field and Current button**--Use these options to see the object's location at any position on the scaled path. Enter a number in the Current Value field and click the Current button. Authorware moves the object to the scaled position you specified, between the base and end points. You can also drag the object to a position along the scaled path. When you release the object, the numeric scaled position of the object appears in the Current Value field. (The Current Value field is ignored during file presentation.)

**Replay**  
**(Path to Point Options dialog box)**

Click Replay to show how the animation appears on the screen, using the current options.



**Change Type**  
**(Path to Point Options dialog box)**

Click Change Type to display the Motion Type dialog box, in which you can select a different type.

**OK**

**(Path to Point Options dialog box)**

Click OK to save your entries and close the dialog box. If you select a different motion type and click OK, the options dialog box for the new motion type appears. Authorware applies any entries you made for the previous motion type to the new motion type.

**Cancel**  
**(Path to Point Options dialog box)**

Click Cancel to close the dialog box without making any changes.

## Erase icon

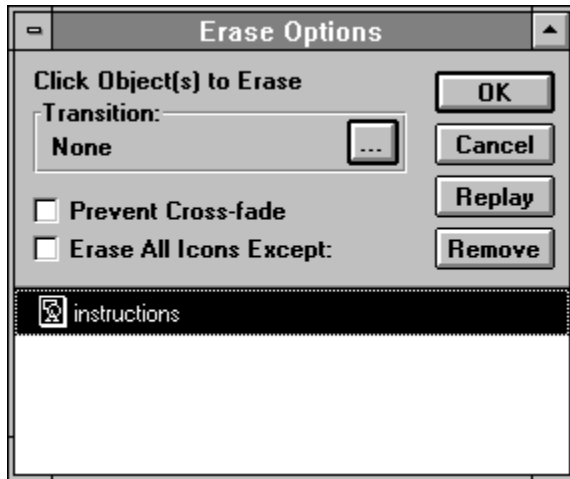
Use the erase icon to erase any icons that's currently displayed. Objects you can erase include text, graphics, movies, animations, and so on.

To open the erase icon, double-click it. Authorware displays the Erase Options dialog box and a presentation window that shows the current display, which may consist of the contents of several icons.

Erasing an icon erases all of its contents. For example, if a display icon contains three graphic objects, Authorware erases all three objects. If you want to erase just one of those objects, place it in a separate display icon, so that it appears as a separate object in the presentation window.

## Erase Options dialog box

Click a part of the dialog box for more information:



### Click Object(s) to Erase (Erase Options dialog box)

Click the objects you want to erase in the presentation window. If the presentation window shows the objects contained in more than one icon, click all of the objects you want to erase. As you click each object, it disappears from the presentation window and the corresponding icon appears in the panel at the bottom of the Erase Options dialog box.

**Note:** To see a preview of the first icon in the list of icons selected for erasure, click the erase icon with the right mouse button.

## Transition (Erase Options dialog box)

From the Erase Transition dialog box, select the transition you want to display when Authorware erases the selected objects. These transitions are the same as those available in the Transition dialog box. For more information on transitions, see the *What's New in Authorware 3.5*.

**Prevent Cross-fade  
(Erase Options dialog box)**

Select this option to completely erase the selected objects before displaying the next icon. If you don't select this option, one display is erased as the next one is displayed.



### **Erase All Icons Except (Erase Options dialog box)**

Select this option to erase any object in the presentation window *except* those that you select. This technique is useful when the presentation window contains so many objects that it's easier to define what not to erase than to select all the objects to be erased. When this option is selected, any icons that appear in the panel at the bottom of the Erase Options dialog box are *not* erased.

**Replay**  
**(Erase Options dialog box)**

Click Replay to test the appearance of any erase transitions you may have set up.

## **Remove**

### **(Erase Options dialog box)**

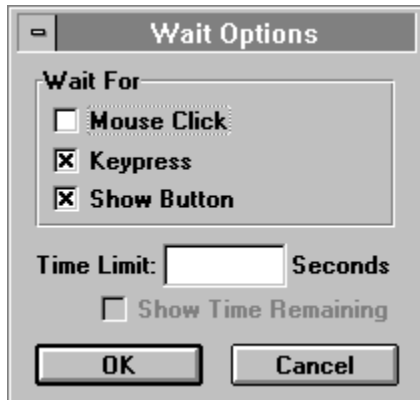
Click Remove to remove the selected icon from the list of displays to be erased. If you selected the Erase All Icons Except option, clicking Remove removes the selected icon from the list of displays *not* to be erased.

## Wait icon

Use the wait icon to pause the file until the user presses a key or clicks the mouse button or until a specified amount of time elapses. To open the wait icon, double-click it. When you open a wait icon, its Wait Options dialog box appears.

## Wait Options dialog box

Click a part of the dialog box for more information:



Unlike most other icons, the wait icon does not automatically open when Authorware encounters a new wait icon when running the file. However, if you display the clock icon by selecting the Show Time Remaining option, you can open the wait icon during presentation by double-clicking the clock icon.

**Wait for Mouse Click**  
**(Wait Options dialog box)**

Select this option to continue when the user presses the mouse button.

**Wait for Keypress**  
**(Wait Options dialog box)**

Select this option to continue when the user presses any key on the keyboard.

## **Show Button (Wait Options dialog box)**

Select this option to display a button the user must click to continue. The title you assign to the wait button in the File Setup dialog box (choose File Setup from the File menu) determines the label that appears on all wait icon buttons. The default button label is Continue.

You can position the wait button anywhere you want while running the file. Choose Pause from the Try It menu, then drag the wait button to a new location. When you insert a new wait icon, its button prompt (if any) is automatically positioned wherever you last positioned a button prompt. Positioning buttons while running the file makes it easy to standardize the placement of wait buttons throughout the file.



## **Time Limit**

### **(Wait Options dialog box)**

In this field you can enter the number of seconds you want Authorware to pause before continuing to the next icon. To make the amount of time dependent on a variable, enter a variable or expression instead of a number. For example, if you want all pauses in the file to be the same length, but you want to experiment with different time limits, enter a custom variable into the Time Limit fields of several wait icons. Instead of changing the number in each wait icon, you can then simply change the value of the custom variable.

### Show Time Remaining (Wait Options dialog box)

Select this option to display a small alarm clock to the user that shows time running out for the time limit you specify in the Time Limit field. You can move the clock while running the file without pausing--just drag it to a new location. Double-click the clock to display the Wait Options dialog box.

**Note:** If you select the Wait for Mouse Click or the Wait for Keypress option and also specify a time limit, the pause is ended by whatever happens first.

## Navigate icon

**Related topics:**    [Navigate To dialog box](#)  
                          [Navigate icon symbols](#)  
                          [Variables and functions related to navigate icons](#)  
                          [Framework icon](#)

Use a navigate icon to set up a navigation link to any icon that is attached to a framework icon. Icons attached to framework icons are called pages. When Authorware encounters a navigate icon, it goes to the page you set up as the destination of the navigation link.

There are two basic ways to use navigate icons:

- To set up automatic navigation--Place a navigate icon anywhere on the flowline. When Authorware encounters the navigate icon, it automatically executes the navigation link and goes to the destination page.
- To set up navigation controlled by the user--Attach one or more navigate icons to an interaction icon. The interaction icon can either be on the main flowline or in the entry pane of a framework icon. For each navigate icon you attach to an interaction icon, you can set up a response type to create the navigation control (such as a button) that takes the user to the destination page.

For more information about setting up navigation frameworks, see the [Framework icon](#) topic. For complete instructions, see "Setting up a navigation framework" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

In addition to setting up navigation links with navigate icons, you can set up hyperlinks by creating hot text. When the user clicks the hot text, Authorware executes the hyperlink and goes to the page you set up as the destination of the hyperlink.

For more information, see the [Define Styles](#) topic and "Navigating with hot text" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

## Navigate To dialog box

When you first drag a navigate icon to the flowline, its title is Unlinked and the small triangle is blank. (See the [Navigate icon symbols](#) topic.) After you set up the navigation link, Authorware automatically changes the navigate icon symbol and tile in the flowline to reflect the type of navigation selected..














You set up navigation links with the options in the Navigate To dialog box. To open the dialog box, double-click the navigate icon or run the file.

On the left side of the dialog box you can select the destination type for a navigate icon and the type of navigation. The right side of the dialog box changes to display the options associated with each destination type. Click a destination type for more information:

- **Recent**--Select this option to let users backtrack.
- **Nearby**--Select this option to go between the pages in a framework and to exit the framework.
- **Anywhere**--Select this option to go to any page attached to any framework icon.
- **Calculate**--This option doesn't go to a predetermined page. Instead, you use the navigate icon to set up an expression that returns an icon ID. When Authorware encounters the navigate icon, it goes to the page that corresponds to the icon ID returned by the expression.
- **Search**--Select this option to let users search for pages that contain a word they specify.

## Navigate icon symbols

When you select a destination for a navigate icon, Authorware displays a symbol on the icon to indicate the kind of navigation link you've set up with the destination. The following table shows which type of link each symbol corresponds to:

 Recent — Go back	 Anywhere (jump)
 Recent — List recent pages	 Anywhere (call)
 Nearby — Previous page	 Calculate (jump)
 Nearby — Next page	 Calculate (call)
 Nearby — First page	 Search (jump)
 Nearby — Last page	 Search (call)
 Nearby — Exit framework/return	

## Variables and functions related to navigate icons

The following variables and functions are useful when you are working with navigation. For more information on variables and functions, see *Authorware Reference*.

### Variables

- `Navigating`--Indicates whether a jump or call is underway.
- `NavTo`--Indicates which page initiated a call or jump.
- `NavFrom`--Indicates which page is the destination of a call or jump.
- `CallStackText`--List of connections between two icons set up as a call.
- `CalledFrom`--Icon ID of the icon that is the origin of a call to the specified icon.
- `CurrentPageID`--Icon ID of the last page displayed that is attached to a specified framework icon.
- `CurrentPageNum`--Order in which the current page is attached to the specified framework icon.
- `MatchCount`--Number of times `FindText` found a particular word or phrase .
- `PageCount`--Number of pages attached to the specified framework icon.

### Functions

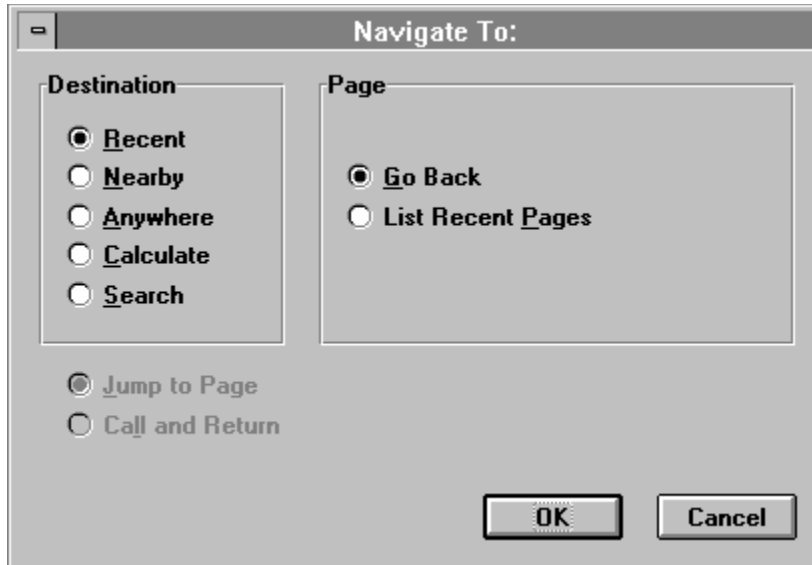
The following Framework category functions mostly perform tasks associated with text searches and displaying the pages the user has seen.

- `FindText`--Searches for specified text; you can limit the search.
- `GetTextContaining`--Returns the word or phrase in a particular match located by `FindText`; it can also return some context for the match.
- `PageFoundID`--Used with `FindText` to find out the ID of the icon that contains a match.
- `PageFoundTitle`--Used with `FindText` to find out the title of the icon that contains a match.
- `PageHistoryID`--Returns the ID of the nth previously displayed page.
- `PageHistoryTitle`--Returns the title of the nth previously displayed page.
- `PurgePageHistory`--Erases the page history.
- `PageContaining`--Returns the icon ID of the specified page's parent.

## Recent (Navigate To dialog box)

Use the Recent destination type to set up navigation links to pages the user has already seen, so that the user can backtrack.

Click a part of the dialog box for more information:



### Customizing the Recent dialog box

You can change certain aspects of the Recent dialog box, including:

- The title of the dialog box
- The number of pages listed in the dialog box

Whether or not the dialog box closes when the user clicks a title and Authorware goes to the corresponding page.

To customize the Recent dialog box, choose Navigation Setup from the File menu. For more information, see [Navigation Setup](#).

## **Page** **(Navigate To dialog box--Recent)**

### **Go Back**

Select this option to set up a navigation link to the page the user viewed before the current page so that the user can go back one page at a time.

### **List Recent Pages**

Select this option to display a dialog box on the user's screen that lists the titles of the pages the user has viewed, with the most recent one on top. When the user clicks a title, Authorware goes to the corresponding page.

**Tip:** To make this option really useful, choose descriptive titles for the pages in your piece. That way, seeing the titles reminds the user of what's on each page.



## **Jump To Page / Call And Return (Navigate To dialog box--Recent)**

Use the **Jump To Page** option to set up a one-way navigation link.

Use the **Call And Return** option to set up a round-trip navigation link, as described in the [About one-way and round-trip navigation links](#) topic.

## About one-way and round-trip navigation links

For most destination types, navigation is a one-way trip. Authorware goes to the destination page and then continues to the next icon on the flowline when it encounters the Exit Framework/Return navigate icon. One-way navigation is automatically available for all destination types. For navigation within a framework, it's the only option. One-way navigation is known as a jump, and you can select it with the Jump To Page option.

If you set up navigation between frameworks, or from a navigate icon on the flowline to a page in a framework, you can also set up round-trip navigation. Instead of continuing to the next icon after executing the destination page, Authorware returns to the icon it came from when it encounters the Exit Framework/Return navigate icon. Round-trip navigation is known as a call, and you can select it with the Call And Return option.

The Call And Return option is available for the Anywhere, Calculate, and Search destination types. Each of these types lets you select a destination page that is attached to any framework icon in the file.

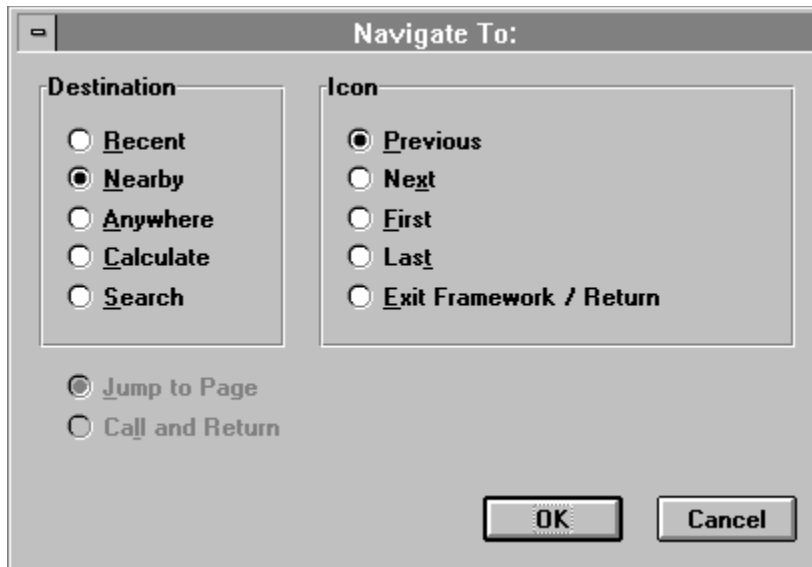
Erasing works differently for one-way and round-trip navigation links. For more information, see the [Erasing text and graphics when navigating between pages](#) topic.

**Note:** By default, the Exit Framework button is in the entry pane of each framework icon. If you delete the button, make sure you set up another navigate icon with Exit Framework/Return selected. Otherwise, Authorware can't get out of the framework to return to the original page.

## Nearby (Navigate To dialog box)

Use the Nearby option to set up navigation links between pages within a navigation framework or to exit the framework.

Click a part of the dialog box for more information:



## **Icon**

### **(Navigate To dialog box--Nearby)**

#### **Previous**

Select the Previous option to set up a navigation link to the page to the immediate left of the current page.

#### **Next**

Select the Next option to set up a navigation link to the page to the immediate right of the current page.

#### **First**

Select the First option to set up a navigation link to the page on the far left of the current framework.

#### **Last**

Select the Last option to set up a navigation link to the page on the far right of the current framework.

#### **Exit Framework/Return**

Select the Exit Framework/Return option to set up a navigation link that exits the framework. If the page inside the framework was the destination page of a navigation link set up with the Call And Return option, Authorware returns to the icon it came from when it exits the framework.

## **Jump To Page / Call And Return (Navigate To dialog box--Nearby)**

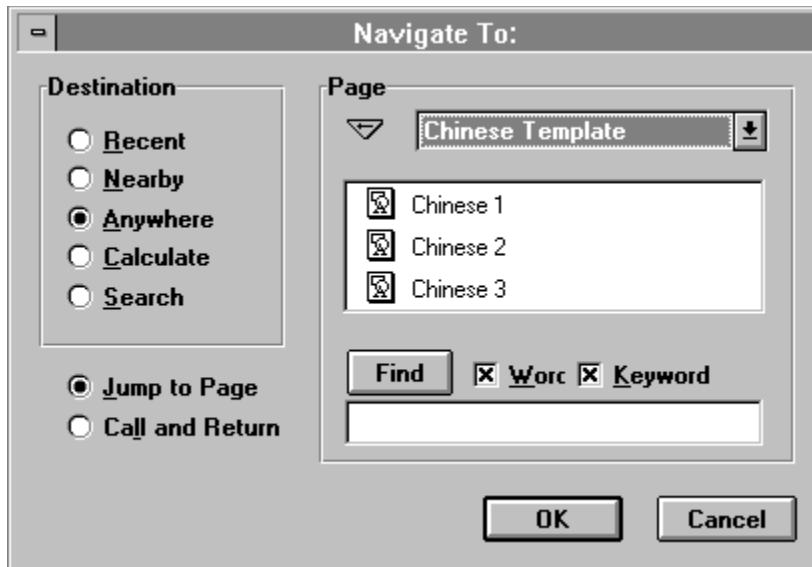
Use the **Jump To Page** option to set up a one-way navigation link.

Use the **Call And Return** option to set up a round-trip navigation link, as described in the [About one-way and round-trip navigation links](#) topic.

## Anywhere (Navigate To dialog box)

You can use this option to set up a navigation link to any page attached to any framework icon in the piece.

Click a part of the dialog box for more information:



The default title for navigate icons set up with the Anywhere destination type is Unlinked. When you set up the navigation link, the title changes to the title of the destination page. If that page is later deleted, the symbol on the navigate icon disappears and its title changes back to Unlinked.

There are two ways to find the destination page you want:

- Display the pages in the drop-down list box or pop-up menu and then select a page.
- Search for a word or phrase that is in the page you want to find. You can also search for keywords that you've assigned to pages.

## **Framework list**

### **(Navigate To dialog box--Anywhere)**

This list contains the Entire File option and the titles of all the framework icons in the piece, in the order in which they appear on the flowline.

- Select the Entire File option to display the titles of all the framework icons, in the order in which they appear on the flowline. Clicking a page creates a navigation link to that page.
- Select a framework title to display the pages attached to that framework icon. Clicking a page creates a navigation link to that page.

## **Find**

### **(Navigate To dialog box--Anywhere)**

Click Find to search for the word or phrase you enter in the field. Where Authorware searches depends on whether you selected a framework from the drop-down list or pop-up menu or the Entire File option. You can further limit the scope of the search by selecting the Filter By options. Authorware displays a list of the pages that contain the word you specified. Clicking a page creates a navigation link to that page.

#### **Filter By: Text**

Select this option to search for text contained in the text objects in the pages.

#### **Filter By: Keyword**

Select this option to search for keywords attached to the pages. For more information about keywords, see the [Keywords](#) topic.



## **Jump To Page / Call And Return (Navigate To dialog box--Anywhere)**

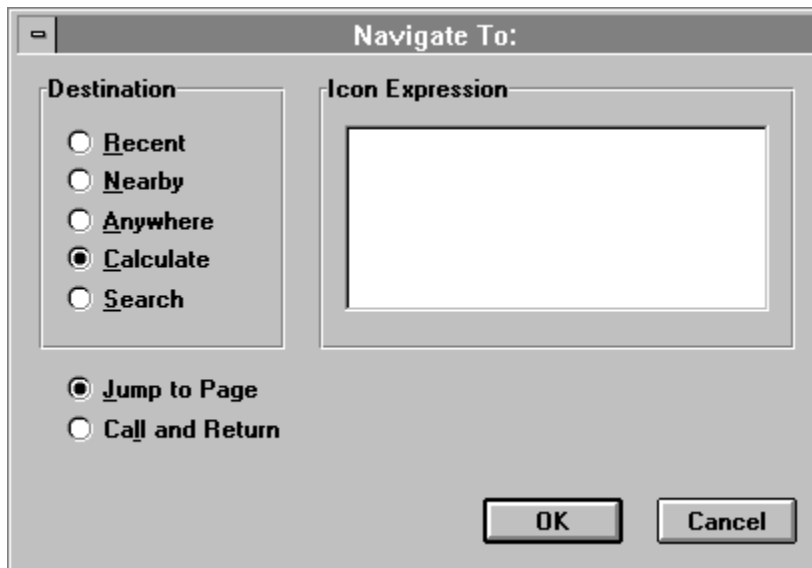
Use the **Jump To Page** option to set up a one-way navigation link.

Use the **Call And Return** option to set up a round-trip navigation link, as described in the [About one-way and round-trip navigation links](#) topic.

## Calculate (Navigate To dialog box)

Use the Calculate option to set up a navigation link to a page that's not determined until the user runs the piece. To set up this destination type, you enter an expression that results in the icon ID of a page. When Authorware encounters the navigate icon, it goes to the page that corresponds to the icon ID returned by the expression. This is very useful if you want to set up navigation links to destination pages that depend on how the user interacts with the piece.

Click a part of the dialog box for more information:



(To see an icon's ID, select the icon and choose Get Info from the Edit menu.)

## Icon Expression (Navigate To dialog box--Calculate)

Enter the expression that will result in an icon ID into this field.

See *Authorware Reference* for an example of how to use the Calculate destination type.

## **Jump To Page / Call And Return (Navigate To dialog box--Calculate)**

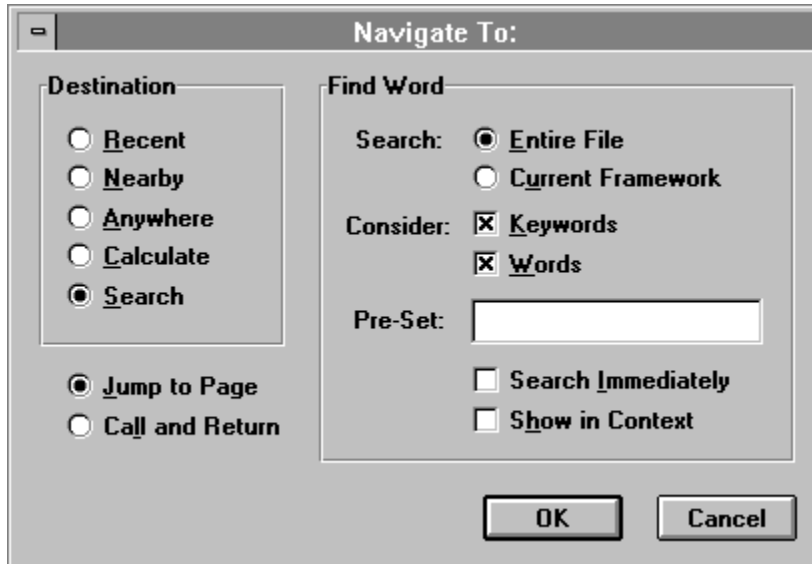
Use the **Jump To Page** option to set up a one-way navigation link.

Use the **Call And Return** option to set up a round-trip navigation link, as described in the [About one-way and round-trip navigation links](#) topic.

## Search (Navigate To dialog box)

Use the Search option to display a Find dialog box to users, which they can use to search for a word. When the user enters a word and clicks Find, Authorware displays the pages that contain the word. When the user clicks a page, Authorware goes to that page and highlights the word the user searched for.

Click a part of the dialog box for more information:



Users can continue what they're doing while Authorware searches; however, the system may respond more slowly. (Searches are slower if you define the scope of the search to be the entire file, for both text and keywords.) During the search, the user can click the Pause button, which temporarily halts the search and changes the button's title to Resume. Clicking the Resume button starts the search where it left off. Authorware also displays how much of the search is complete next to the Word field.

You can use the options associated with the Search destination type to customize the search in the following ways:

- Limit the scope of the search
- Set up shortcuts for users, such as defining words that automatically go to a specific page without first displaying a list
- Set up automatic searches for hot text
- Display the found words by themselves or in the context of surrounding words.

### Customizing the Find dialog box

You can customize certain aspects of the Find dialog box that appears to users, including:

- The title of the Find dialog box and of the heading for the list of found pages
- The labels of prompts and buttons in the Find dialog box
- Whether Authorware highlights found text, and in what color

- Whether or not the dialog box closes when the user clicks a title and Authorware goes to the corresponding page.

You can also load a list of words that Authorware ignores during a search.

To set up the Find dialog box, choose Navigation Setup from the File menu. For more information, see [Navigation Setup](#) .

## Search

### (Navigate To dialog box)

Use these options to limit the scope of the search a user can initiate:

- **Entire File**--Select this option if you want users to be able to search all frameworks in the file. Depending on the size of the file, searching the entire file can take fairly long. You may also want to limit the scope to keep users in a certain section of the file.
- **Current Framework**--Select this option to limit the search to the framework that the user is in.

## Consider (Navigate To dialog box--Search)

Use either or both of these options to further define the scope of a search.

- **Keyword**--Select this option to limit the search to keywords attached to the pages, within the scope you defined with the Search options. For more information about keywords, see the [Keywords](#) topic.
- **Text**--Select this option to limit the search to text in the text objects in pages, within the scope you defined with the Search options.



## Pre-Set (Navigate To dialog box--Search)

In the Pre-Set field you can enter a word (or a variable containing a word) that you want to appear automatically in the Find dialog box when the user clicks the Find button. The user can change this word to find other words, or click the Find button to start the search.

If you enter a word (rather than a variable) in the Pre-Set field, enclose it in double quotation marks.

You can also enter a word or a variable that will trigger an automatic search if you also select the Search Immediately checkbox. For example, if you enter the variable `WordClicked` into the field, Authorware automatically starts a search for any word the user clicks. If you enter the variable `HotTextClicked`, Authorware automatically starts the search when the user clicks hot text. Note that the variable `WordClicked` only works for a single word, while you can define a range of text as hot text.

For more information, see the [Define Styles](#) topic and "Navigating with hot text" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

### **Search Immediately (Navigate To dialog box--Search)**

Select this option to immediately start the search for the word you entered in the Pre-Set field when the user clicks the Find button. If you entered the variables `WordClicked` or `HotTextClicked`, Authorware immediately starts the search for the word or hot text the user clicks, without displaying the Find dialog box.

### **Show in Context** **(Navigate To dialog box--Search)**

Select this option to display the words that Authorware finds together with the words that surround it, with the found word highlighted. If you select this option, the Find dialog box is larger. The search also takes longer.

This option applies only to text, not to keywords.

## **Jump To Page / Call And Return (Navigate To dialog box--Search)**

Use the **Jump To Page** option to set up a one-way navigation link.

Use the **Call And Return** option to set up a round-trip navigation link, as described in the [About one-way and round-trip navigation links](#) topic.

## Framework icon

**Related topics:**    [Framework window](#)  
                          [Erasing text and graphics](#)  
                          [Navigating between frameworks](#)  
                          [Related variables and functions](#)

The framework icon gives you an easy way to set up navigation in an Authorware piece. Built into the framework icon is a set of navigation controls that users can use to move among the icons you've attached to the framework icon.

An icon attached to a framework icon is called a page. A page isn't limited to a display icon containing text and graphics. It can just as easily be a digital movie, a sound, or an animation. In fact, if you use a map icon, you can make the page as complex as you want--it can contain an interaction, a decision, another framework icon with its own navigation structure, or any combination of icons you want to arrange on the map's flowline.

When you set up a framework icon, you use the [Framework window](#) to set up any icons that Authorware executes when entering or exiting a navigation framework.

## Framework window

**Related topics:**    [Entry pane](#)  
                          [Exit pane](#)  
                          [Erasing text and graphics when navigating between pages](#)

The framework window is divided into an [entry pane](#) and an [exit pane](#). You can resize the entire window and adjust the size of each pane by dragging the dividing line.

When Authorware enters a framework icon, it executes any icons in the [entry pane](#) before going to the first page attached to the framework icon. When it exits the framework, Authorware executes any icons in the [exit pane](#).

## Framework window entry pane

Use the entry pane to set up the icons that you want to affect every page that is attached to the framework icon. Because the entry pane already contains the default navigation controls, the buttons associated with those controls appear on every page. Each button executes the navigation link set up in the entry page.

You can delete the navigation controls, modify them, or add others to suit your needs. For more information about these controls, see the following sidebar. You can also use the entry pane to add display icons that contain text or graphics, to add sounds or animations for every page, or to set up calculation icons that affect the entire framework. For example, you could set up a custom variable that collects information as the user goes through the pages.

For instructions for setting up a framework, see "Setting up a navigation framework" in Chapter 6, "Setting Up Navigation and Branching," in *Using Authorware*.

## About the default navigation controls

Because the entry pane contains an interaction icon with eight attached navigate icons that are set up as button response types, Authorware displays these buttons on every page attached to the framework icon. For each of the default navigation controls, the Perpetual option is selected and branching is set to Return.

When users click these buttons, Authorware executes the navigation links associated with each navigation control. Clicking the Next Page button, for example, takes the user to the next page.

By using the system variable `CurrentPageNum` in an expression in the Active If True field, you can define when each navigation control is active. For example, when the user is on the first page, you'd want to dim the Previous Page button.

You can delete any navigation controls you don't need and add others as necessary. If you want, you can save the modifications as a model and then copy that model into any other framework, to create the navigation controls it contains in a single step. You can also replace the default navigation controls with your own default controls, so that any new framework icons you drag to the flowline will already contain the navigation controls you want.

For more information, see the following sections in Chapter 6, "Setting Up Navigation and Branching" in *Using Authorware*: "Replacing the default navigation controls," "Changing a navigation control," and "Replacing the default navigation controls with a model."



## Framework window exit pane

Authorware normally erases any displays and ends any perpetual interactions when it exits a navigation framework. You can use the exit pane to set up anything else you want to happen when Authorware exits the framework. For example, you could add an interaction that asks users if they really want to quit, or use a display icon to display a message. By embedding a variable in a display icon, you could also display information collected while the user was navigating inside the framework, such as a score.

By setting up the exit pane so that Authorware resets the values of any variables to their original values, you can "clean up" after the user. That way, you always know what state the piece is in.

## Erasing text and graphics when navigating between pages

How Authorware erases text and graphics when it goes between pages depends on how the navigation is set up.

- If navigation is set up as a one-way trip (a jump), Authorware erases the current page as it displays the new page, using the transition effect you set up. By erasing the current page before displaying the new page, Authorware ensures that users can display the pages in any order.
- If navigation is set up as a round trip (a call), Authorware displays the contents of the new page on top of the original page. When Authorware returns to the original page, it erases the contents of what was the destination page, so that only the contents of the original page remain displayed.

For more information about these navigation types, see the [About one-way and round-trip navigation links](#) topic.

## Navigating between frameworks

When Authorware goes from one framework to another, it follows a navigation hierarchy that guarantees that any information you set up in a framework's entry and exit panes applies to any nested frameworks, which are frameworks inside of map icons that are attached to framework icons.

When Authorware encounters a navigate icon in one framework that has a different framework as its destination, it executes the Exit Framework/Return navigate icon, which directs the flow to the exit pane of the framework. After executing the exit pane, Authorware goes to the destination framework and executes that framework's entry pane.

Authorware provides three variables that you can use in the entry or exit pane to identify whether Authorware is navigating to or from a page in the framework.

- `Navigating`--Indicates whether a jump or call is underway.
- `NavTo`--Indicates which page initiated a call or jump.
- `NavFrom`--Indicates which page is the destination of a call or jump.

For more information on variables, see Chapter 3 of *Authorware Reference*.

## Variables and functions related to framework icons

In addition to the variables listed in the previous section, the following system variables and functions are useful when you are working with framework icons and with navigation. For more information on variables and functions, see *Authorware Reference*.

### Variables

- `CallStackText`--List of connections between two icons set up as a call.
- `CalledFrom`--Icon ID of the icon that is the origin of a call to the specified icon.
- `CurrentPageID`--Icon ID of the last page displayed that is attached to a specified framework icon.
- `CurrentPageNum`--Order in which the current page is attached to the specified framework icon.
- `MatchCount`--Number of times `FindText` found a particular word or phrase.
- `PageCount`--Number of pages attached to the specified framework icon.

### Functions

The following Framework category functions mostly perform tasks associated with text searches and with displaying the pages the user has already seen.

- `FindText`--Searches for specified text; you can limit the search.
- `GetTextContaining`--Returns the word or phrase in a particular match located by `FindText`; it can also return some context for the match.
- `PageFoundID`--Used with `FindText` to find out the ID of the icon that contains a match.
- `PageFoundTitle`--Used with `FindText` to find out the title of the icon that contains a match.
- `PageHistoryID`--Returns the ID of the nth previously displayed page.
- `PageHistoryTitle`--Returns the title of the nth previously displayed page.
- `PurgePageHistory`--Erases the page history.
- `PageContaining`--Returns the icon ID of the specified page's parent.

## Decision icon

**Related topics:**    [Decision Options dialog box](#)  
                          [Attached Decision Options dialog box](#)  
                          [Variables related to the decision icon](#)

Use decision icons to set up decision structures by attaching icons (called paths) to the decision icon. When Authorware encounters a decision structure, it automatically branches to the paths attached to the decision icon. You can define which path Authorware branches to and how often it executes the decision icon before moving to the next icon on the flowline.

When you set up decision structures, you can define the following settings:

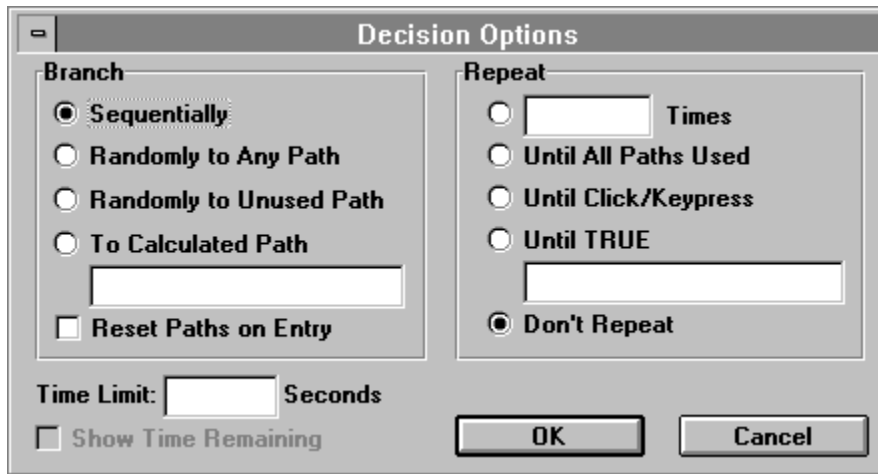
- The [Branch setting](#), which determines which icon Authorware branches to
- The [Repeat setting](#), which determines how many times Authorware returns to the decision icon and branches again (loops).

You define both settings in the [Decision Options dialog box](#).

## Decision Options dialog box

To open a decision icon, double-click it.

Click a part of the dialog box for more information:



The image shows a screenshot of the "Decision Options" dialog box. The title bar at the top reads "Decision Options". The dialog is divided into two main sections: "Branch" on the left and "Repeat" on the right. In the "Branch" section, there are four radio button options: "Sequentially" (which is selected), "Randomly to Any Path", "Randomly to Unused Path", and "To Calculated Path". Below these is a text input field and a checkbox labeled "Reset Paths on Entry". In the "Repeat" section, there are four radio button options: "Times" (with an adjacent text input field), "Until All Paths Used", "Until Click/Keypress", and "Until TRUE". Below these is another text input field and a selected radio button labeled "Don't Repeat". At the bottom left, there is a "Time Limit:" label followed by a text input field and the word "Seconds", and a checkbox labeled "Show Time Remaining". At the bottom right, there are two buttons: "OK" and "Cancel".

Because decision icons have no display capabilities, you can't open them from the presentation window. The Decision Options dialog box appears, with the title of the decision icon in the title bar.

## Branch (Decision Options dialog box)

Use the Branch options to determine which of the attached icons Authorware branches to. The decision icon on the flowline contains a letter that identifies the type of branching you selected: S=Sequentially, A=Randomly to Any Path, U=Randomly to Unused Path, and C=To Calculated Path.

- **Sequentially**--Select this option to select the first path the first time Authorware encounters the decision icon, the second path the second time, and so on.  
  
This option is useful when you need to alternate between two options. Authorware remembers which path was last presented and presents the other path the next time.
- **Randomly to Any Path**--Select this option to randomly select a path when Authorware encounters the decision icon. When you select this option, the branching is truly random--Authorware may repeatedly branch to one path and never branch to others.
- **Randomly to Unused Path**--Select this option to randomly select a path when Authorware encounters the decision icon, but not to branch to the same path twice until it has branched to every other path. This option ensures that all paths are displayed once before any path is displayed twice.
- **To Calculated Path**--In this field enter a variable or expression that calculates which path Authorware should branch to. The integer value of this variable or expression determines which icon is selected: if it equals 1, Authorware branches to the first path; if it equals 2, Authorware branches to the second path, and so on.
- **Reset Paths on Entry**--Select this option to reset the values related to the paths Authorware has already executed. This option applies if you selected the Branch option Sequentially or To Calculated Path, where Authorware keeps track of which paths it has executed and then branches accordingly. When you reset these values, Authorware deletes this information when it encounters the decision icon again. This option is useful if you want to use the decision structure from several different locations in the piece and you want to reset the branching each time.

You can also use the system function `ReplaceSelection` to reset the decision icon. For more information, see "ReplaceSelection" in *Authorware Reference*.

## Repeat (Decision Options dialog box)

Use the Repeat options to set up how many times Authorware returns to the decision icon to determine whether it should branch again. The default option is Don't Repeat.

- **\_\_\_ Times**--Select this option to specify a number, variable, or expression to determine how many times Authorware repeats the decision structure. If the value is less than 1, no branching occurs and Authorware exits or bypasses the decision icon.
- **Until All Paths Used**--Select this option to ensure that Authorware branches to all attached icons at least once before it exits the decision structure.
- **Until Click/Keypress**--Select this option to repeat executing the decision structure until the user presses a key or the mouse button. This option is useful for animations and other sequences that you want to repeat until the user stops them.
- **Until True**--In this field to enter a variable or expression that Authorware evaluates each time it encounters the decision icon. When the result is false, Authorware repeats executing the decision structure and branches as specified. When the result is true, Authorware exits the decision structure. For example, if you entered the variable `VideoDone` in this field, Authorware would continue executing the decision structure until the value of `VideoDone` changes to true (when the current video sequence is finished playing).
- **Don't Repeat**--Select this option to execute the decision structure just once, according to the Branch options you selected. Authorware then exits the decision structure and moves to the next icon on the main flowline.



## **Time Limit**

### **(Decision Options dialog box)**

In this field you can enter the number of seconds or a variable that defines how long the user can spend within a decision structure. As soon as the specified time elapses, Authorware interrupts the current activity, exits the decision structure, and moves to the next icon on the main flowline.

Time is measured in seconds and may be expressed by a number, a variable, or an expression (for example, `1.5*average time`). If you select the Show Time Remaining option, a small alarm clock appears on the screen.

### **Show Time Remaining (Decision Options dialog box)**

Select this option to display a small alarm clock that shows time running out, according to the time limit you specify in the Time Limit field.

You can use the variable `TimeExpired` to determine if Authorware stopped executing a decision structure because its time limit expired. For more information, see "TimeExpired" in *Authorware Reference*.

## Attached Decision Options dialog box

This dialog box appears when you double-click a path icon attached to a decision icon. Click a part of the dialog box for more information:



You can use the options in this dialog box to set up erasing, to set up a pause, and to display the contents of the attached icon.

## Erase Displayed Objects (Attached Decision Options dialog box)

Use these options to determine when to erase the contents of the icon attached to the decision icon.

- **Before Next Selection**--Select this option to erase the displayed objects just before displaying the contents of the next attached icon. If you want to display the contents of a series of icons and erase each display before showing the next one, attach all display icons to a decision icon, select the Branch/Sequentially option, and use this erase option.
- **Upon Exit**--Select this option to leave all display objects in the attached icon on the screen until Authorware exits the decision structure. At that time, the objects are erased.
- **Don't Erase**--Select this option to leave display objects in the attached icon on the screen until you explicitly erase them with an erase icon.

**Pause Before Branching**  
**(Attached Decision Options dialog box)**

Select this option to display a wait button the user must click to exit the attached icon.

**OK - Edit Display**  
**(Attached Decision Options dialog box)**

This button's label varies depending on the type of icon that is attached to the decision icon; for example, it might be named OK - Edit Sound or OK - Edit Map. Click the button to display the contents of the attached icon (or the appropriate options dialog box) in the presentation window.

## Variables related to decision icons

The following variables are useful when working with decision icons:

- `AllSelected`--Indicates whether every icon attached to the current decision icon has been selected.
- `PathCount`--Number of icons attached to the current decision icon.
- `PathSelected`--Number of the last path selected in the current decision.
- `RepCount`--Number of times the current decision has been repeated.
- `SelectedEver`--Indicates whether the current path of the decision icon has been previously selected.
- `TimesSelected`--Number of times the last decision path has been selected.
- `TimeExpired`--Indicates whether the time limit has expired.

For more information on variables, see Chapter 3 in *Authorware Reference*.

## Interaction icon

### Related topics:

[Interaction Options/Text Entry Options dialog box](#)  
[Response Type dialog box](#)

### Types of interactions:

<a href="#">Button</a>	<a href="#">Text Entry</a>
<a href="#">Hot Spot</a>	<a href="#">Keypress</a>
<a href="#">Hot Object</a>	<a href="#">Tries Limit</a>
<a href="#">Target Area</a>	<a href="#">Time Limit</a>
<a href="#">Pull-down Menu</a>	
<a href="#">Conditional</a>	

Use interaction icons to set up interaction structures that consist of an interaction icon and any icons that are attached to it. Icons attached to interaction icons are called result icons. Each result icon corresponds to a response that the user can make--such as clicking a button or entering text--or to an event--such as the number of tries the user made.

You determine the user's response or the event by defining each result icon as a particular response type. When the user makes a response or the event occurs, Authorware branches to the corresponding result icon and displays its contents. This process is known as matching a response.

The interaction icon combines the functions of the display icon and the decision icon by providing:

- **Display capabilities**--When Authorware encounters an interaction icon, it displays the contents of the interaction icon (such as text and graphics), the response areas associated with each of the attached result icons.

You determine when the interaction display is erased with the options in the Interaction Options dialog box, which is described in the following section.

- **Branching capabilities**--When the user responds, Authorware branches to the corresponding result icon and displays the contents of that icon. For example, if users click the correct button, you would branch to the result icon that contains a message that congratulates them; if they click the wrong button, you would branch to the icon that contains a hint and asks them to try again.

You determine when the display for the result icon is erased when you set up the Erase Feedback option in the options dialog box for each of the response types.

In addition to matching a single response, you can wait until the user matches several responses before displaying the contents of a result icon. To do this, use the variable `AllCorrectMatched`, which is described in *Authorware Reference*. For instructions, see "Waiting until everything is correct" in Chapter 4, "Creating Interactions," in *Using Authorware*.

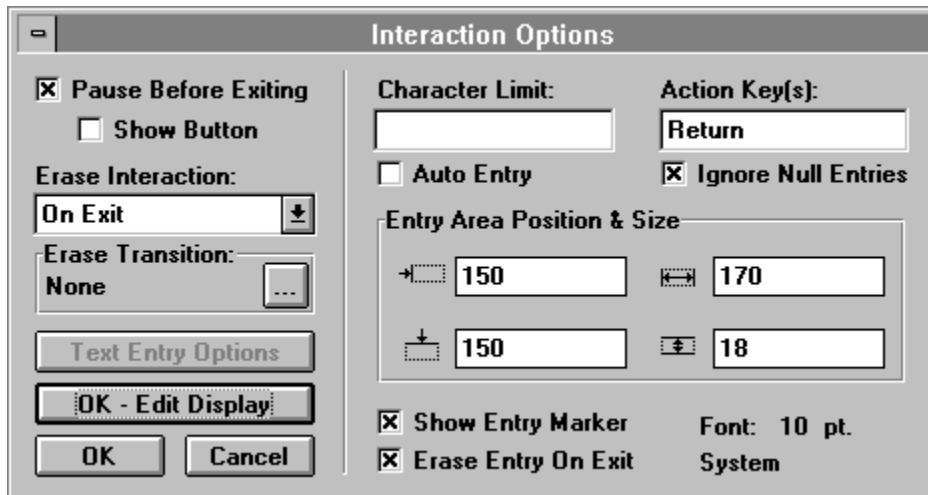
For detailed explanations of how to set up interaction structures for each response type, see the sections starting with "Planning an interaction" in Chapter 4, "Creating Interactions," in *Using Authorware*.

**Note:** In addition to setting up interactions for users, you can use interaction icons to set up the navigation controls for navigation frameworks. For more information, see the [About the default navigation controls](#) topic. For instructions, see "Setting up a navigation framework" in Chapter 6, "Setting up Navigation and Branching," in *Using Authorware*.



## Interaction Options/Text Entry Options dialog box

This dialog box appears differently depending on whether you have clicked the Text Entry Options button. If you have clicked this button, the full dialog box appears, as shown below. Click a part of the dialog box for more information:



The dialog box is titled "Interaction Options" and is divided into two main sections. The left section contains options for pausing before exiting, showing a button, erasing the interaction on exit, and erasing the transition. The right section contains options for character limits, action keys, auto entry, ignoring null entries, and entry area position and size. At the bottom, there are checkboxes for showing an entry marker and erasing the entry on exit, along with font settings.

Section	Option	Value
Left Panel	<input checked="" type="checkbox"/> Pause Before Exiting	
	<input type="checkbox"/> Show Button	
	Erase Interaction:	On Exit
	Erase Transition:	None
Right Panel (Top)	Character Limit:	
	Action Key(s):	Return
Right Panel (Middle)	<input type="checkbox"/> Auto Entry	
	<input checked="" type="checkbox"/> Ignore Null Entries	
Right Panel (Bottom)	Entry Area Position & Size	
	Width	150
	Height	170
	Depth	18
Bottom	<input checked="" type="checkbox"/> Show Entry Marker	
	<input checked="" type="checkbox"/> Erase Entry On Exit	
Font		10 pt. System

The options in the right side of the dialog box are specific to interactions with attached icons that are set up as text-entry responses. If none of the attached icons is set up as a text-entry response, Authorware ignores these options.

## **Pause Before Exiting (Interaction Options dialog box)**

Select this option to set up a pause before Authorware exits the interaction. The pause gives the user time to see what's on the screen before continuing. To continue, the user presses any key. To make sure the user knows to click a button, you can display a Continue button by selecting the Show Button option.

## **Show Button (Interaction Options dialog box)**

If you selected the Pause Before Exiting option, selecting the Show Button option displays a wait button (with the default label Continue) that the user clicks to continue the presentation.

## Erase Interaction (Interaction Options dialog box)

Use the Erase Interaction options to determine when the interaction display is erased.

- **On Exit**--Select this option to erase the interaction display when Authorware exits the interaction.
- **After Each Entry**--Select this option to erase the interaction display as soon as Authorware displays the contents of a result icon. The interaction display reappears automatically if Authorware repeats the interaction.
- **Don't Erase**--Select this option to leave the interaction display on the screen until it's erased with an erase icon.

There are separate options for setting up when the contents of result icons are erased. For complete instructions on erasing, see "Setting up automatic erasing" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## **Erase Transition (Interaction Options dialog box)**

Use the Erase Transition options to determine how the interaction display is erased. These transitions are the same as those available in the Transition dialog box. For more information on transitions, see the *What's New in Authorware 3.5*.

### **Text Entry Options (Interaction Options dialog box)**

Click this button to open the Text Entry Options dialog box. This dialog box applies only to interactions with at least one attached result icon that is set up as a text entry response.

### **OK - Edit Display (Interaction Options dialog box)**

Click this button to open the interaction display, in which you can create or edit the display by using the toolbox or by importing graphics and text.

**Tip:** As a shortcut, press the Control key and then double-click the interaction icon. You can also run the file and double-click any display object contained in the interaction display.

## **Character Limit**

### **(Text Entry Options dialog box)**

In this field you specify the maximum number of characters the user can enter in response to this interaction. If the user types more characters, Authorware ignores the additional characters.

The size of the user entry area also limits the amount of text the user can enter. If you leave the Character Limit field blank, the user can type as many characters as will fit in the text-entry area.



### **Auto Entry** **(Text Entry Options dialog box)**

Select this option to automatically record entries after a certain number of characters, as though the user had pressed the Enter key (or the Return key on the Macintosh). This option interacts with the Character Limit option and works only if you specify a maximum number of characters.

**Action Key(s)**  
**(Text Entry Options dialog box)**

In this field you specify which key the user must press to complete the text entry and to have Authorware evaluate the response. You can use the "or" bar (|) to specify more than one action key (for instance, Enter|Tab). Enter is the default action key on Windows; Return is the default on the Macintosh.

**Ignore Null Entries**  
**(Text Entry Options dialog box)**

Select this option to ignore the action key if the user presses it without typing anything.

## Entry Area Position & Size (Text Entry Options dialog box)

In these fields you can precisely define the position and size of the text-entry area by inserting screen coordinate (pixel) values or variables. For instance, you could use the system variables `ClickX` and `ClickY` to create a text-entry area in the form of a note pad that is displayed at the user's last click.

The Position values determine the placement of the top left corner of the text-entry area. The Size values determine the width and height of the text-entry area. You must set up the values of any variables prior to the interaction. Experiment with the following variables: `CursorX`, `CursorY`, `DisplayX`, `DisplayY`, `PositionX`, `PositionY`, `WindowHeight`, `WindowLeft`, `WindowTop`, and `WindowWidth`. For more information, see Chapter 3 in *Authorware Reference*.

### **Show Entry Marker** **(Text Entry Options dialog box)**

Select this option to display a small triangular marker to indicate to users where they should type. When you select this option, the marker automatically appears to the left of the text-entry area. Whether or not you show the marker, a blinking cursor indicates where the text that the user enters will appear.

### **Erase Entry On Exit** **(Text Entry Options dialog box)**

Select this option to erase the text the user entered when Authorware exits the interaction. If you deselect this option, the user's response remains on the screen until you erase it with an erase icon.

## **Font**

### **(Text Entry Options dialog box)**

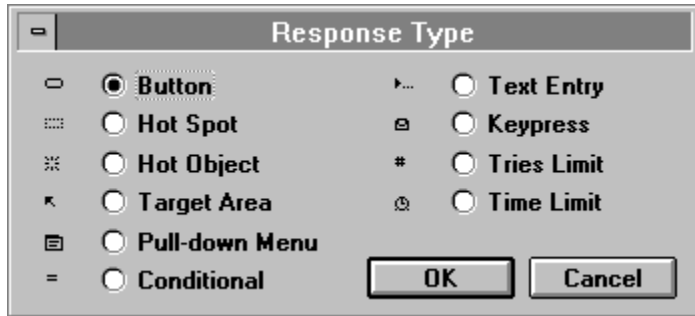
This caption displays the font, size, and style that Authorware uses when the user enters text. To change font attributes, choose an option from the Font, Size, and Style submenus under the Text menu.

## Response Type dialog box

**Related topic:** [Unanticipated responses](#)

When you attach the first icon to an interaction icon, the Response Type dialog box appears. In this dialog box you select the type of response the user must make, or the event that must occur, to display icon you're attaching.

Click a part of the dialog box for more information on that type of interaction:



When you select a response type for an attached icon, the corresponding response type symbol appears above the icon in the design window.

Once you choose a response type, all other icons you attach to the right of that icon are automatically assigned the same response type.



## Unanticipated responses

Although it's important to anticipate how users will respond so you can provide specific feedback, it's impossible to anticipate every possible response. Unless you set up a way of handling unanticipated responses, Authorware just waits until the user's response matches one of the attached icons.

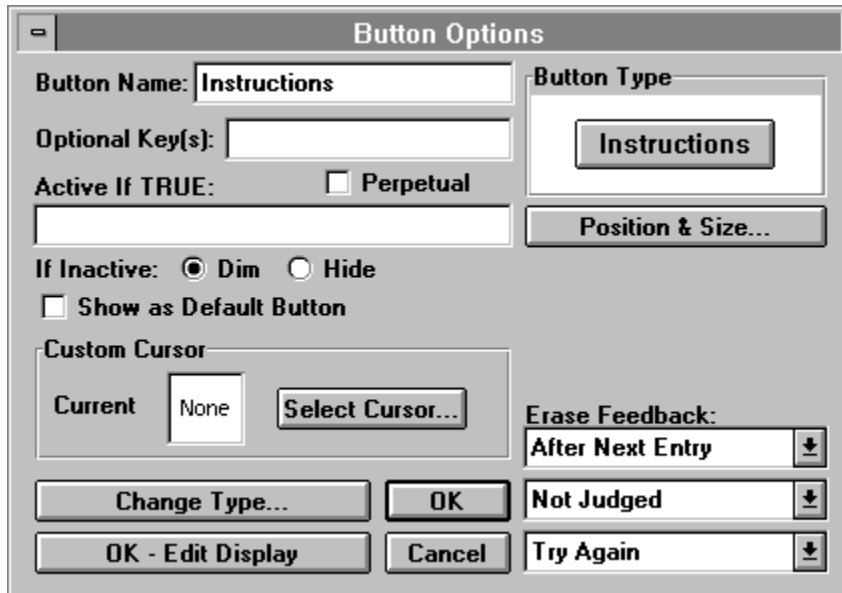
With some types of responses, unanticipated responses are not possible. In pull-down menus, for example, users can't do anything but choose from the commands in the menu.

A general way to deal with unanticipated responses is to limit the amount of time or to limit the number of attempts the user can make. You can then coach users who are not responding effectively.

Specific ways to set up catch-all responses for unanticipated responses are described in the sections where they apply.

## Button responses

Click a part of the dialog box for more information:



The screenshot shows the 'Button Options' dialog box. It has a title bar with a close button and the text 'Button Options'. The dialog is divided into several sections. On the left, there's a 'Button Name' field with 'Instructions' entered, an 'Optional Key(s)' field, and an 'Active If TRUE' section with a 'Perpetual' checkbox. Below that is an 'If Inactive' section with 'Dim' and 'Hide' radio buttons, and a 'Show as Default Button' checkbox. A 'Custom Cursor' section has a 'Current' label, a 'None' button, and a 'Select Cursor...' button. At the bottom left are 'Change Type...', 'OK', and 'OK - Edit Display' buttons. On the right, there's a 'Button Type' section showing a preview of a button labeled 'Instructions', a 'Position & Size...' button, and an 'Erase Feedback' section with three dropdown menus: 'After Next Entry', 'Not Judged', and 'Try Again'. Each dropdown has a small arrow icon.

You can use button responses to automatically create buttons on the screen. Use this option when you want to create buttons that the user clicks to make a choice. When you attach a result icon to an interaction icon and set it up as a button response, a button appears in the interaction icon's display. When the user clicks the button, Authorware branches to the result icon that corresponds to the button.

The default button is the standard button that uses the icon's title as its label.

You can create and paste custom buttons, including graphics buttons and buttons that play sounds. For more information, see the [Buttons](#) topic. For instructions on setting up buttons, see the sections starting with "Creating or editing a custom button" in Chapter 4, "Creating Interactions," in *Using Authorware*.

To open the Button Options dialog box:

- Double-click the response type symbol on the flowline.
- Double-click a button while its selection handles are visible. If you're running the file, you need to pause by pressing Control-P.

## **Button Name**

### **(Button Response Options dialog box)**

The title you assign to the icon automatically becomes the button label and the button is automatically resized to fit the label. When you change the name in this field Authorware automatically changes the icon's title. You can only set up the button's label here; however, you can use the Button Library and Button Editor dialog boxes to modify whether the label is displayed or how the text is aligned.

## Optional Key(s) (Button Response Options dialog box)

In this field you can enter keys that are equivalent to clicking the button. The user can then either click the button or press one of the specified keys.

Enter alphanumeric keys by typing them; separate multiple keys with an "or" bar (|). For example, if the button is titled Help, you may want to let the user type H or h in addition to clicking the Help button. To enter these keys as optional keys, type H|h in the text-entry field.

Enter keys such as Tab, Enter, and Backspace by typing their names. For the Control key, type Ctrl followed by the key to be pressed with the Control key--for example, CtrlA. For more details and a complete list of supported key names, see the [Keypress responses](#) topic.

## Perpetual (Button Response Options dialog box)

Select this option to keep a button active after the user leaves the interaction that contains it. You can use this option to make a button available throughout an entire piece or within a section of a piece, without having to create a new button response in every interaction.

When the user clicks the button (or presses the corresponding optional key), Authorware immediately branches to the button's result icon.

**Note:** When you no longer need the button, erase it with an erase icon--perpetual responses are not erased by the standard erase options.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in *Using Authorware*.

**Active If TRUE**  
**(Button Response Options dialog box)**

Use this option to specify that the button is active only when the condition you enter in this field is true. When the condition is false, the response cannot be matched.

## If Inactive (Button Response Options dialog box)

Use these options to specify how an inactive button appears to the user.

- **Dim**--Select this option to dim the button when it's inactive.
- **Hide**--Select this option to remove the button from the screen. The button automatically reappears when it becomes active.

### **Show as Default Button** **(Button Response Options dialog box)**

If you selected the standard button, selecting this option displays a heavy line around the button, to let the user know that this button is the default choice. When a button is the default choice, pressing Enter (or Return on the Macintosh) is the same as checking the button.

If you created a custom button, this option is not available.



## **Custom Cursor (Button Response Options dialog box)**

Click the Select Cursor button to display the Cursors dialog box, in which you can select a custom cursor that appears when the user moves the cursor over the button. You can also load other cursors. When you select a custom cursor, it appears in the Button dialog box. For more information, see the [Cursors](#) topic.

When you package the file, any custom cursors you use are copied into the packaged file.

## **Button Type**

### **(Button Response Options dialog box)**

Use this option to see what the default button looks like or to select another button. To use another button, click the button to display the Button Library dialog box and select a button from the library. For more information, see the [Buttons](#) topic.

## **Position & Size**

### **(Button Response Options dialog box)**

Click this button to display a dialog box in which you can precisely define the button's position and size by entering screen coordinate (pixel) values or variables. The top left corner of the button is placed at the coordinates you specify in the Position fields. The values in the Size fields determine the width and height of the button. These values are useful for standardizing the placement and size of buttons that appear in different places in the piece. (If you're working with a custom button, you can set its position, but you can't change its size.)

## Erase Feedback (Button Response Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Button Response Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Button Response Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

## **Change Type** **(Button Response Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Button Response Options dialog box)**

Click this button to close the options dialog box without changing any settings.



## **OK - Edit Display** **(Button Response Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

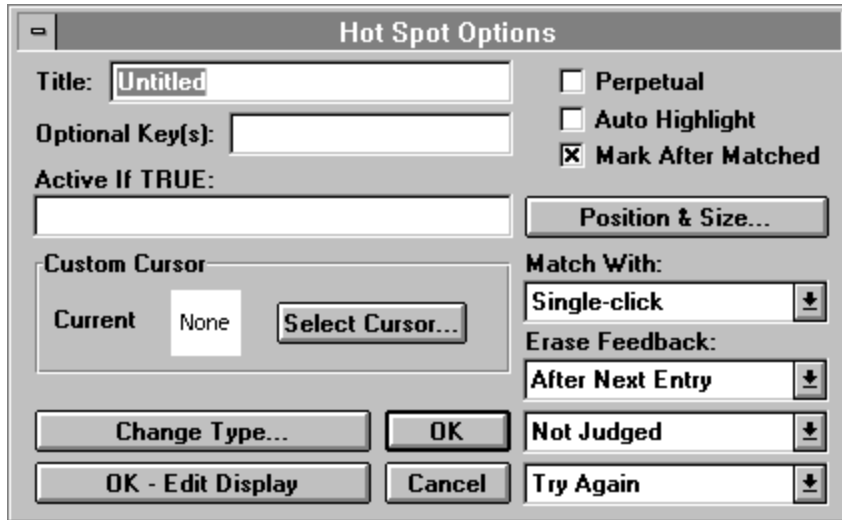
**OK**  
**(Button Response Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Hot Spot responses

Use hot spot responses to set up any rectangular area--or even the entire screen--as a hot spot the user can click, double-click it, or move the cursor over.

Click a part of the Hot Spot Options dialog box for more information:



The image shows the 'Hot Spot Options' dialog box. It has a title bar with a close button and the text 'Hot Spot Options'. The dialog is divided into several sections. On the left, there is a 'Title:' field with 'Untitled' entered, an 'Optional Key(s):' field, and an 'Active If TRUE:' field. Below these is a 'Custom Cursor' section with 'Current' and 'None' radio buttons, and a 'Select Cursor...' button. At the bottom left are buttons for 'Change Type...', 'OK', 'OK - Edit Display', and 'Cancel'. On the right, there are checkboxes for 'Perpetual', 'Auto Highlight', and 'Mark After Matched' (which is checked). Below these is a 'Position & Size...' button. Further down are 'Match With:' and 'Erase Feedback:' sections, each with a dropdown menu. The 'Match With:' dropdown is set to 'Single-click', and the 'Erase Feedback:' dropdown is set to 'After Next Entry'. At the bottom right are two more dropdown menus: 'Not Judged' and 'Try Again'.

Hot Spot Options	
Title: <input type="text" value="Untitled"/>	<input type="checkbox"/> Perpetual
Optional Key(s): <input type="text"/>	<input type="checkbox"/> Auto Highlight
Active If TRUE: <input type="text"/>	<input checked="" type="checkbox"/> Mark After Matched
<b>Custom Cursor</b>	<b>Position &amp; Size...</b>
Current <input type="radio"/> None <input type="radio"/> <input <="" td="" type="button" value="Select Cursor..."/> <td>Match With: <input type="text" value="Single-click"/> <input type="button" value="v"/></td>	Match With: <input type="text" value="Single-click"/> <input type="button" value="v"/>
<input type="button" value="Change Type..."/> <input type="button" value="OK"/>	Erase Feedback: <input type="text" value="After Next Entry"/> <input type="button" value="v"/>
<input type="button" value="OK - Edit Display"/> <input type="button" value="Cancel"/>	<input type="text" value="Not Judged"/> <input type="button" value="v"/>
	<input type="text" value="Try Again"/> <input type="button" value="v"/>

For instructions, see "Setting up a hot spot" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## **Title**

### **(Hot Spot Options dialog box)**

This field contains the title of the icon you set up as a hot spot response. While you're authoring, this title also appears as a label on the hot spot in the interaction display.

## Optional Key(s) (Hot Spot Options dialog box)

In this field you can enter keys that are equivalent to clicking a hot spot; the user can either click the hot spot or press one of the specified keys. For example, if you have multiple hot spot responses you could label the hot spots with single-digit numbers and let the user type a number.

- Enter alphanumeric keys by typing them; separate multiple keys with an "or" bar (|). For example, to let the user type either A or a, type A|a in the field.
- Enter keys such as Tab, Enter, and Backspace by typing their names. For the Control key, type Ctrl followed by the key to be pressed with the Control key--for example, CtrlA.

For details and a complete list of supported key names, see the [Key \(Keypress responses\)](#) topic.

**Active If TRUE**  
**(Hot Spot Options dialog box)**

Use this option to specify that the hot spot response is active only when the condition you enter in this field is true. When the condition is false, the response cannot be matched.

## Select Cursor

Click Select Cursor to display the Cursors dialog box, in which you can select a custom cursor that appears when the user moves the cursor over the hot spot. You can also load other cursors. When you select a custom cursor, it appears in the Hot Spot Options dialog box. For more information, see the [Cursors](#) topic.

When you package the file, any custom cursors you use are copied into the packaged file.

## Perpetual (Hot Spot Options dialog box)

Select this option to keep the hot spot active after Authorware exits the interaction that contains it. You can use this option to make a hot spot available throughout an entire piece or within a section of a piece, without having to create a new hot spot response in every interaction.

When the user clicks, double-clicks, or moves the cursor over the hot spot, Authorware immediately branches to the button's result icon.

**Note:** When you no longer need the hot spot, erase it with an erase icon--perpetual responses are not erased by the standard erase options.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in *Using Authorware*.



### **Auto Hilight (Hot Spot Options dialog box)**

Select this option to display an inverse image of the hot spot when the user clicks it. For example, if the hot spot area is white, it changes to black; if the hot spot is colored, it changes to its inverse color. This option is useful for showing the user which hot spot areas have been selected. When the user clicks a hot spot, the inverse color is displayed until the user releases the mouse button. At that time, Authorware matches the response if the cursor is still over the hot spot.

### **Mark After Matched** **(Hot Spot Options dialog box)**

Select this option to place a small square symbol in the left inside edge of the hot spot.

The square is empty until the response is matched. At that time the square is filled in. These squares are erased along with the interaction display. If you resize a hot spot that contains this square, the square is also resized.

## **Position & Size**

### **(Hot Spot Options dialog box)**

Click this button to display a dialog box in which you can precisely define the hot spot's position and size by inserting screen coordinate (pixel) values or variables. The top left corner of the hot spot is placed at the coordinates specified in the Position fields. The Size values determine the width and height of the hot spot. These values are useful for standardizing the placement and size of hot spots that appear in different places in the piece.

## Match With (Hot Spot Options dialog box)

Use these options to determine how the user can match the response:

- **Single-click** (the default)--The user must click the hot spot once.
- **Double-click**--The user must double-click the hot spot.
- **Cursor in Area**The user must place the cursor on the hot spot without clicking. Neither Continue branching nor the Auto Highlight option are available when you select the Cursor in Area option. If the Erase Feedback option is set to Before Next Entry, the feedback is not erased until the cursor is moved out of the hot spot.

## Erase Feedback (Hot Spot Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Hot Spot Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Hot Spot Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

**Change Type**  
**(Hot Spot Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.



**Cancel**  
**(Hot Spot Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display (Hot Spot Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

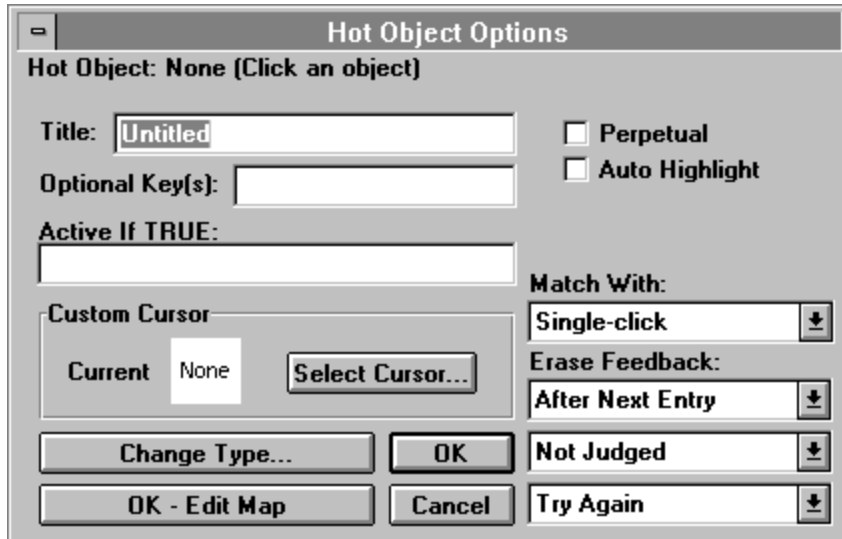
**OK**  
**(Hot Spot Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Hot object responses

You use a hot object response to define an object in the interaction display as hot. A hot object is an object the user can activate by clicking, double-clicking, or moving the cursor over the object.

Click a part of the Hot Object Options dialog box for more information:



The image shows a screenshot of the 'Hot Object Options' dialog box. The title bar reads 'Hot Object Options'. Below the title bar, the text 'Hot Object: None (Click an object)' is displayed. The dialog contains several input fields and checkboxes. On the left, there is a 'Title:' field with 'Untitled' entered, an 'Optional Key(s):' field, and an 'Active If TRUE:' field. Below these is a 'Custom Cursor' section with a 'Current' label, a 'None' button, and a 'Select Cursor...' button. On the right, there are two checkboxes: 'Perpetual' and 'Auto Highlight'. Below the checkboxes is a 'Match With:' dropdown menu showing 'Single-click'. Further down is an 'Erase Feedback:' dropdown menu showing 'After Next Entry'. At the bottom, there are four buttons: 'Change Type...', 'OK', 'Not Judged', and 'Try Again'. The 'OK' button is highlighted.

Hot Object Options

Hot Object: None (Click an object)

Title:

Optional Key(s):

Active If TRUE:

Custom Cursor

Current  

☐ Perpetual

☐ Auto Highlight

Match With:

Erase Feedback:

Hot object responses are similar to hot spot responses, except that you make an object hot, rather than a rectangular area of the screen. You can also make objects that are being moved hot.

To use this option, place each object you want to make hot into its own display icon.

For instructions, see "Setting up a hot object" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## **Title**

### **(Hot Object Options dialog box)**

This field contains the title of the icon you set up as a hot object response. While you're authoring, this title also appears as a label on the hot object in the interaction display.

## Optional Key(s) (Hot Object Options dialog box)

In this field you can enter keys that are equivalent to clicking the button; the user can either click the button or press one of the specified keys.

- Enter alphanumeric keys by typing them; separate multiple keys with an "or" bar (|). For example, to let the user type either A or a, type A|a in the field.
- Enter keys such as Tab, Enter, and Backspace by typing their names. For the Control key, type Ctrl followed by the key to be pressed with the Control key--for example, CtrlA.

For more details and a complete list of supported key names, see the [Key \(Keypress responses\)](#) topic.

**Active If TRUE**  
**(Hot Object Options dialog box)**

Use this option to specify that the hot object response is active only when the condition you enter in this field is true. When the condition is false, the response cannot be matched.

## Select Cursor

Click Select Cursor to display the Cursors dialog box, in which you can select a custom cursor that appears when the user moves the cursor over the hot spot. You can also load other cursors. When you select a custom cursor, it appears in the Hot Object Options dialog box. For more information, see the [Cursors](#) topic.

When you package the file, any custom cursors you use are copied into the packaged file.



## Perpetual (Hot Object Options dialog box)

Select this option to keep the hot object active after Authorware exits the interaction that contains it. You can use this option to make a hot object available throughout an entire piece or within a section of a piece, without having to create a new hot object response in every interaction.

When the user clicks, double-clicks, or moves the cursor over the hot object, Authorware immediately branches to the object's result icon.

**Note:** When you no longer need the hot object, erase it with an erase icon--perpetual responses are not erased by the standard erase options.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in *Using Authorware*.

### **Auto Highlight (Hot Object Options dialog box)**

Use this option to display an inverse image of the hot object when the user clicks it. For example, if the hot object area is white, it changes to black; if the object is colored, the object changes to its inverse color. This option is useful for showing the user which hot objects have been selected. When the user clicks the hot object, Authorware displays the inverse color until the user releases the mouse button. At that time, Authorware matches the response if the cursor is still over the hot object.

## Match With (Hot Object Options dialog box)

Use these options to determine how the user can match the response:

- **Single-click** (the default)--The user must click the hot object once.
- **Double-click**--The user must double-click the hot object.
- **Cursor in Area**The user must place the cursor in the hot object without clicking. Neither Continue branching nor the Auto Highlight option are available when you select this option. If the Erase Feedback option is set to Before Next Entry, the feedback is not erased until the cursor is moved out of the hot object.

## Erase Feedback (Hot Object Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Hot Object Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Hot Object Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

**Change Type**  
**(Hot Object Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

## **OK - Edit Display (Hot Object Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.



**OK**  
**(Hot Object Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

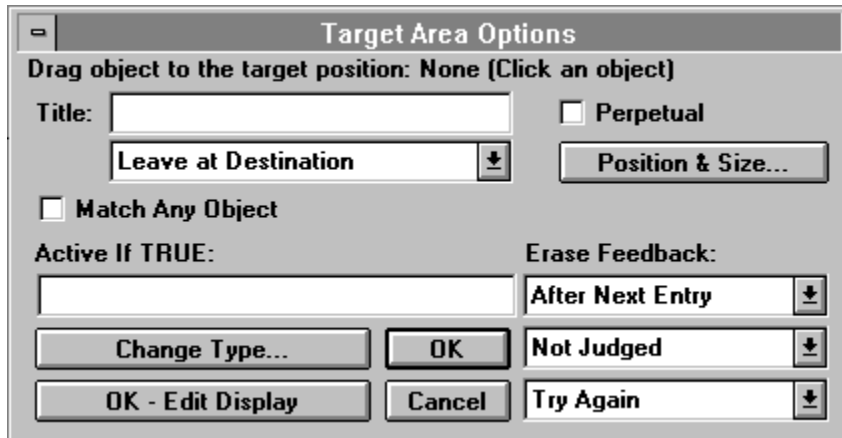
**Cancel**  
**(Hot Object Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## Target area responses

Use target area responses when you want the user to drag an object into a specified area in the interaction display. When the user drags the object into the target area, the response is matched and Authorware branches to the result icon.

Click a part of the Target Area Options dialog box for more information:



The screenshot shows the 'Target Area Options' dialog box. At the top, it says 'Drag object to the target position: None (Click an object)'. Below this, there is a 'Title:' label followed by a text box containing 'Leave at Destination' and a dropdown arrow. To the right of the text box is a checkbox labeled 'Perpetual'. Below the text box is a button labeled 'Position & Size...'. Below the 'Perpetual' checkbox is another checkbox labeled 'Match Any Object'. Below this, there are two sections: 'Active If TRUE:' and 'Erase Feedback:'. The 'Active If TRUE:' section has a text box. The 'Erase Feedback:' section has a dropdown menu with 'After Next Entry' selected. Below these sections are three rows of buttons. The first row has 'Change Type...', 'OK', and 'Not Judged' (with a dropdown arrow). The second row has 'OK - Edit Display', 'Cancel', and 'Try Again' (with a dropdown arrow).

Each target area response you attach to an interaction appears as an outlined rectangle with an X. The target area is labeled with the result icon's title. Because target areas don't appear during file presentation, you can see the target area only when you're editing with the toolbox or when you pause the presentation.

When you set up target area responses, consider setting up boundaries to keep the user from dragging objects off the screen. You may also want to freeze objects after the user moves them.

For instructions, see "Letting users drag an object to a target," "Freezing an object you've made movable," and "Setting boundaries for an object that's movable" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## Unanticipated responses

It's often useful to include a target area response that covers the entire screen. Such a "catch-all" target area lets you provide feedback no matter where a user drags an object on the screen. Be sure to place the catch-all icon to the right of any other target area icons that contain smaller target areas; otherwise the smaller target area responses will never be matched.

For more information and instructions, see the sidebar "Setting up a safety net" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## **Title**

### **(Target Area Options dialog box)**

This field contains the title of the icon you set up as a target area response. While you're authoring, this title also appears as a label on the target area in the interaction display.

## Object destination (Target Area Options dialog box)

Use the Object destination options to control what happens to the object once the user stops dragging it. These options apply only when the user moves the object into the target area.

- **Leave at Destination**--Select this option to leave the object exactly where the user lets go of it.
- **Put Back**--Select this option to return the object to its previous screen location. This option is useful for incorrect responses set to Try Again branching because the user can move the object again, starting at the original position.
- **Snap to Center**--Select this option to snap the object to the center of the target area. This option is useful for providing feedback that the object was moved correctly.

## Match Any Object (Target Area Options dialog box)

Select this option to match the response when the user drags any object into the target area. Authorware displays instructions in the black banner, directing you to size and place the target area without dragging an object into it.

If you select this option, use the display's Effects dialog box to create movable objects. For more information, see the [Effects](#) topic.

**Tip:** After the user drags an object into the target area, the system variable `ObjectMatched` contains the title of the object that was dragged. In addition, the variable `ObjectMoved` contains the name of the last display that the user clicked and dragged. For more information about these variables, see Chapter 3 in *Authorware Reference*.

**Active If TRUE**  
**(Target Area Options dialog box)**

Use this option to specify that the target area response is active only when the condition you enter in this field is true. When the condition is false, the response cannot be matched.

## **Perpetual** **(Target Area Options dialog box)**

Select this option to keep the target area active after Authorware exits the interaction that contains it. You can use this option to make a target area available throughout an entire piece or within a section of a piece, without having to create a new target area response in every interaction.

When the user drags the object to the target area, the response is immediately matched and Authorware branches to the result icon.

A target area response set to Perpetual remains active until you erase the object it contains with an erase icon or until you the condition in the Active if True field becomes false.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in *Using Authorware*.



### **Position & Size** **(Target Area Options dialog box)**

Click this button to display a dialog box in which you can precisely define the position and size of the target area by inserting screen coordinate (pixel) values or variables. The top left corner of the target area is placed at the coordinates specified in the Position fields. The Size values determine the width and height of the target area. These values are useful for standardizing the placement and size of target areas that appear in different places in the piece.

## Erase Feedback (Target Area Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Target Area Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Target Area Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

**Change Type**  
**(Target Area Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Target Area Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display** **(Target Area Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

**OK**  
**(Target Area Options dialog box)**

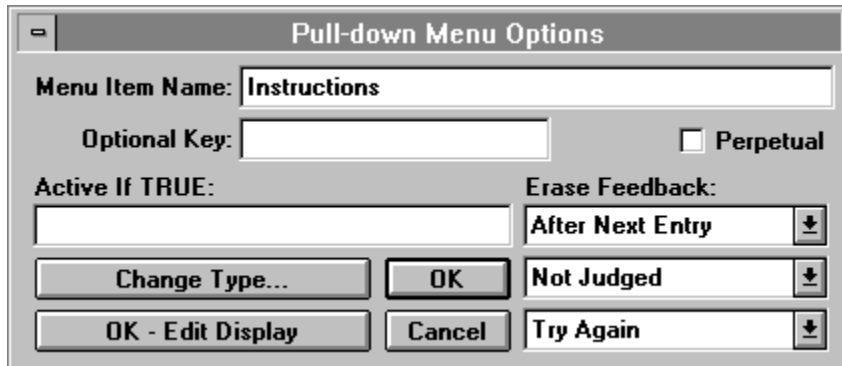
Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.



## Pull-down menu responses

Use pull-down menu responses to set up menus from which users can choose commands. For each pull-down menu, you need a separate interaction icon. The icons attached to the interaction icons are the commands in the menus.

Click a part of the Pull-down Menu Options dialog box for more information:



The screenshot shows a dialog box titled "Pull-down Menu Options". It contains the following fields and controls:

- Menu Item Name:** A text field containing the word "Instructions".
- Optional Key:** An empty text field.
- Perpetual:** An unchecked checkbox.
- Active If TRUE:** An empty text field.
- Erase Feedback:** A dropdown menu currently showing "After Next Entry".
- Buttons:** "Change Type...", "OK", "Not Judged" (with a dropdown arrow), "OK - Edit Display", "Cancel", and "Try Again" (with a dropdown arrow).

Pull-down menus are especially useful for setting up perpetual interactions that are always available, yet unobtrusive. For more information, see "Creating background interactions" and "Setting up a pull-down menu" Chapter 4, "Creating Interactions," in *Using Authorware*.

## Unanticipated responses

You can use a time-limit result icon to prompt users who don't select a command within the time limit you set up.

## **Menu Item Name**

### **(Pull-down Menu Options dialog box)**

In this field you enter a command that will appear on the pull-down menu. You can use special codes when you type the title to control how the command appears in the menu. Type these codes in the field, along with the title.

- To disable a menu item, type a left parenthesis before the text you want to display as dimmed.
- To display a blank line, type only a left parenthesis.
- To insert a separator line, type a left parenthesis followed by a hyphen: (-.
- On Windows, to underline a letter and make it an accelerator key, type an ampersand (&) before the letter you want to underline. To place an ampersand (&) in the menu, type &&.

On Windows, you can also underline characters in the title of an interaction icon (which appears as the title of the menu on the menu bar) by using the ampersand (&). During authoring, the ampersand is displayed; when you package the file, Authorware correctly interprets the underline character.

## **Optional Key**

### **(Pull-down Menu Options dialog box)**

In this field you can specify an optional Control or Alt key that's equivalent to selecting the command from the menu.

To set up an optional key, enter the key in the Optional Key field. For example, if you type the letter O in this field, the menu command is matched with Control-O. To specify an Alt key, type Alt\_ in the Optional Key field.

**Active If TRUE**  
**(Pull-down Menu Options dialog box)**

Use this option to specify that the menu command is active only when the condition you enter in this field is true. When the condition is false, the command is dimmed in the menu and users can't choose it.

## **Perpetual**

### **(Pull-down Menu Options dialog box)**

Select this option to keep the pull-down menu active after the user leaves the interaction that contains it.

To keep a pull-down menu active throughout the piece, place the interaction icon at the top of the flowline and set all of the pull-down menu responses to Perpetual. If an interaction has only perpetual responses attached to it, Authorware does not stop to wait for the user to respond. Instead, it "falls through" to the next icon on the main flowline.

A common authoring technique is to set up all the user menus at the beginning of the file. Don't forget that you'll need one interaction icon for every menu in the menu bar.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## Erase Feedback (Pull-down Menu Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Pull-down Menu Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Pull-down Menu Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.



**Change Type**  
**(Pull-down Menu Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Pull-down Menu Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display** **(Pull-down Menu Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

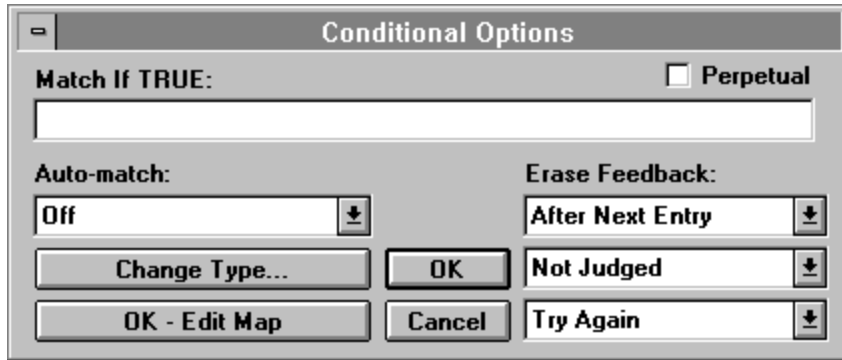
**OK**  
**(Pull-down Menu Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Conditional responses

You can use conditional responses to display the contents of the result icon when a certain condition is true. For example, you could display a message if the user makes three wrong responses.

Click a part of the Conditional Options dialog box for more information:



The image shows a dialog box titled "Conditional Options". It has a "Match If TRUE:" label and a checkbox labeled "Perpetual". Below this is a text input field. There are two columns of options. The left column has "Auto-match:" with a dropdown menu showing "Off", a "Change Type..." button, and an "OK - Edit Map" button. The right column has "Erase Feedback:" with a dropdown menu showing "After Next Entry", a "Not Judged" button, and a "Try Again" button. There are also "OK" and "Cancel" buttons in the center.

Conditional Options	
<b>Match If TRUE:</b> <input type="checkbox"/> Perpetual	
<input type="text"/>	
<b>Auto-match:</b>	<b>Erase Feedback:</b>
Off	After Next Entry
Change Type...	Not Judged
OK - Edit Map	Try Again
OK	Cancel

For instructions on setting up conditional response types, see "Reacting to special conditions" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## Match If TRUE (Conditional Options dialog box)

In this field you enter the variable or conditional expression that Authorware matches when it becomes true. The expression you enter appears as the title of the attached icon on the flowline.

Enter any variable or expression in the field--it doesn't need to be a logical variable or a conditional expression. Authorware evaluates the variable or expression you specify and comes up with a result of true or false.

- A value of 0 equals false; any numeric value other than 0 equals true.
- The character strings "TRUE," "T," "YES," and "ON" equal true. All other characters equal false.

Here are some examples of conditional expressions you can use:

- `Score > 20`--The condition is true if the custom variable Score contains a value greater than 20.
- `SessionHours < .25`--The condition is true if the system variable SessionHours contains a value of less than .25, which means the user has worked in this session for fewer than 15 minutes.
- `WordCount>5|CharCount>25`--The expression is true if the system variable WordCount contains more than 5 words or more than 25 characters.

## Auto-match (Conditional Options dialog box)

Use the Auto-match options to determine whether and how to match a conditional response automatically, without a user response. Generally, Authorware evaluates the condition each time it encounters a conditional response. However, you can use the Auto-match options to match a conditional response at any point in the interaction. Authorware then branches directly to the conditional response.

- **Off**--Authorware matches the conditional response only when the user responds to the interaction and the specified condition is true.
- **When True**--Authorware matches the conditional response repeatedly, as long as the condition is true. This option is useful for matching a response automatically, depending on the value of a condition. A conditional response matches repeatedly when the condition is true. If you want Authorware to match other responses or to exit the interaction, make any changes that are necessary so that the condition evaluates to false.
- **On False To True**--Authorware matches the conditional response only when the condition changes from false to true while Authorware is executing the interaction icon. No user response is needed for a match.

## **Perpetual (Conditional Options dialog box)**

Select this option to make a conditional response active throughout the application. Authorware matches the response whenever the condition in the Match if True field changes from false to true.

For more information about setting up perpetual interactions, see "Creating background interactions" in Chapter 4, "Creating Interactions," in of *Using Authorware*.



## Erase Feedback (Conditional Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
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## Response Tracking (Conditional Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Conditional Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.
- **Return**--This option becomes active only if you select the Perpetual option.

A perpetual response remains active after the user leaves the interaction to which the result icon is attached. You can use perpetual responses to make pull-down menus and buttons available throughout the piece, or in certain sections of the piece. When you use Return branching and the user matches a perpetual response, Authorware immediately presents the corresponding result icon. Authorware then displays the icon that follows the icon that was being presented when the user matched the perpetual response.

When you add a new response type to an interaction icon that's inside the entry pane of a framework icon, Authorware automatically makes it perpetual and sets its exit branching to Return.

For more information about setting up perpetual interactions, see Creating background interactions in Chapter 4, Creating Interactions, in *Using Authorware*.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

## **Change Type** **(Conditional Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Conditional Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display (Conditional Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

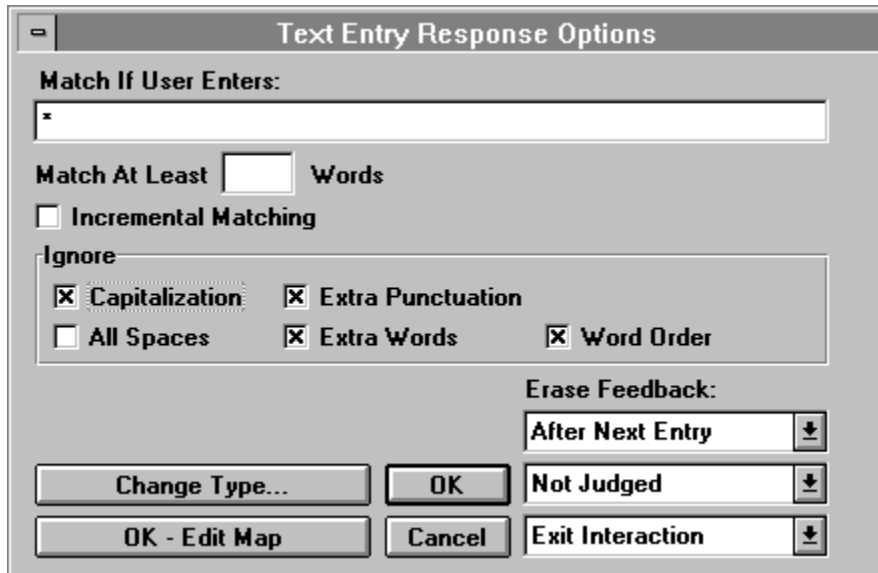
**OK**  
**(Conditional Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Text entry responses

Use text-entry responses when you want the user to type a word or phrase. Each interaction display can contain only one text-entry field where a user can enter a response. If you want users to enter information in two different fields, you must set up two different interactions.

Click a part of the Text Entry Response Options dialog box for more information:



The screenshot shows the 'Text Entry Response Options' dialog box. It has a title bar with a minus sign. The main area contains several sections: 'Match If User Enters:' with a text field containing an asterisk (\*); 'Match At Least' with a small text field and the word 'Words'; 'Incremental Matching' with an unchecked checkbox; 'Ignore' with a group box containing five checkboxes: 'Capitalization' (checked), 'Extra Punctuation' (checked), 'All Spaces' (unchecked), 'Extra Words' (checked), and 'Word Order' (checked). Below this is the 'Erase Feedback:' section with three dropdown menus: 'After Next Entry', 'Not Judged', and 'Exit Interaction'. At the bottom are four buttons: 'Change Type...', 'OK', 'OK - Edit Map', and 'Cancel'.

To take into account variations in spelling, word order, capitalization, and so on, you can attach several result icons set up as text-entry responses to an interaction icon. You can also include a catch-all response that matches any entry.

You set up the options that apply to text-entry result icons in two different dialog boxes. The first dialog box is displayed when you click the Text Entry Options button in the Interaction Options dialog box. These options, which apply to any text-entry result icons in the interaction, are described in the [Interaction Options/Text Entry Options](#) topic. The second set of options applies only to a single result icon, as described in this section.

See also "Setting up a text entry field" in Chapter 4, "Creating Interactions," in *Using Authorware*.

## Unanticipated responses

Unanticipated responses are most likely with text-entry responses, because the number of things a user can type is infinite. By carefully using wildcard characters and ignoring variations in word order, punctuation, capitalization, and extra words, you can increase the number of user responses that Authorware will match. However, users will still make unanticipated entries.

To set up a catch-all response type for text entry responses, attach an icon that contains a single asterisk character (any response) in the Match If User Enters field. In the attached icon, display a message to help the user. To make sure Authorware tries to match all other responses first, attach the icon at the far right of all the icons, so that it only matches unanticipated responses.



## Match If User Enters (Text Entry Response Options dialog box)

In this field you enter the word or phrase you want the user to enter. The user does not need to match all of the words, depending on the Match at Least \_ Words setting.

The text in this field becomes the title of the attached icon.

You can use special characters or enter variables in this field to set up different match options:

- Use the "or" bar (|) to separate equivalent responses. The text in the Match If User Enters field can be up to 400 characters long, so you can include many alternative responses, separated from one another with an "or" bar. For example, if the matching text field contains `red|yellow|blue`, the response is matched if the user types either red, yellow, or blue.
- Instead of matching the response whenever the user enters the text you specify, you can make text-entry responses active only when the system variable `Tries` also contains a value you specify.

For example, to make a text-entry response active on a specific try, type # and a number as the first characters in the Match If User Enters field. For example, if you enter `#3dog`, Authorware matches the response "dog" only on the user's third try.

To make the match dependent on more than one condition, separate the conditions with an "or" bar (|). For example, if you enter `a|b|#1c|#2d|#3d` in the Match If User Enters field, a response of `a` or `b` always matches, a response of `c` matches when `Tries = 1`, and a response of `d` matches when `Tries = 2` or when `Tries = 3`.

- You can add comments to the end of the text you want users to type by inserting two hyphens. For example, if you enter `hello--user password is in the Match If User Enters field`, Authorware ignores the comment `--user password` when checking for a match.
- You can use wildcard characters to take into account misspellings and alternative prefixes or word endings.

Type an asterisk (\*) as a substitute for an entire word or any missing part of a word. Type a question mark (?) as a placeholder for any single character.

Type a backslash (\) before an asterisk (\*) or a question mark (?) to specify that these characters are not wildcard characters, but rather normal asterisks or question marks.

The following table contains examples of wildcards.

Anticipated response	Matching responses/Nonmatching responses
*	Matching responses: one, red, fantastic (any single word or character) Nonmatching responses: one red, (more than 1 word unless ignoring extra words)
* *	Matching responses: red ball, a b (any 2 words) Nonmatching responses: all, one red ball (less than 2 words or more than 2 words)
re*d	Matching responses: red, read, reed, rested, required Nonmatching responses: reds, re d, redone, reedit
red*	Matching responses: red, redeploy Nonmatching responses: cornered, read
*red	Matching responses: red, cornered Nonmatching responses: redeploy, redone
*red*	Matching responses: red, redeploy, cornered, redeem, redundant

	Nonmatching responses: read, der, re:
?	Matching responses: a, b, 1, 0, -, + (any single character) Nonmatching responses: red, 10 (null entry, 0 or more than 1 character)
??	Matching responses: ab, 10, -2, i, (any 2 characters) Nonmatching responses: red, a, 0, + (less than 2 or more than 2 characters)
? ?	Matching responses: 1 2, R L (any two characters separated by a space) Nonmatching responses: 12, ab, +-
*?	Matching responses: 1, daffodil, terrific (any single character or word) Nonmatching responses: red herring (null entry or more than 1 word unless ignoring extra words)
?*	Matching responses: same as above Nonmatching responses: same as above
re?d	Matching responses: read, reed Nonmatching responses: red, received
\*	Matching responses: * Nonmatching responses: anything else
\?	Matching responses: ? Nonmatching responses: anything else
red\?	Matching responses: red? Nonmatching responses: red\?, anything else
2\*3	Matching responses: 2*3 Nonmatching responses: 2\*3, anything else
?*\?	Matching responses: a*b, 1*2, x*7 Nonmatching responses: a\*b, a\b
*?\*?*	Matching responses: a*b, 10*lbs, four*three Nonmatching responses: a * b, a+b, *b, a*

### **Match At Least \_ Words** **(Text Entry Response Options dialog box)**

Use this option to enter the minimum number of words (relative to the total number of words in the Match If User Enters field) the user must enter.

Words that are separated by the "or" bar (|) are considered separate groups. For example, if you enter `red white blue|rojo blanco azul` in the Match If User Enters field and specify that the user needs to match at least three words, Authorware matches a response that contains either all three words in English or all three words in Spanish.

### **Incremental Matching (Text Entry Response Options dialog box)**

If the Match If User Enters field contains more than one word, select this option to give the user several opportunities to get all the words. For example, if the field contains Mahatma Gandhi, the user could enter Mahatma in one try and Gandhi in another try.

## Ignore (Text Entry Response Options dialog box)

Use these options to ignore some variations in the user's response. The default is to ignore these variations, except for the extra spaces.

- **Capitalization**--Select this option to ignore capitalization. If the user's enters the text in the Match If User Enters field except for capitalization, Authorware matches the response.
- **All Spaces**--Select this option to ignore all spaces the user types. By default, Authorware compares user responses with the text you specify word by word. One or more spaces indicate the start of a new word; multiple spaces are ignored.

When you select the Ignore All Spaces option, Authorware ignores every space in the user's response and interprets the entire response as a single word or an unbroken string of characters.

For example, Authorware does not match the anticipated response `red, yellow, and blue` if spaces are ignored, because the user's response is seen as `red,yellow,andblue`.

- **Extra Punctuation**--Select this option to ignore extra punctuation the user types.

For example, if the anticipated response is `Clarion, Iowa` and the user types `Clarion Iowa!`, Authorware would not match the response because the response requires a comma. However, if the user types `Clarion, Iowa!` or `Clarion, Iowa`, Authorware would match the response because it ignores the exclamation mark and the extra comma.

- **Extra Words**--Select this option to let the user enter extra words. `I think it's red` would match the anticipated response of `red`.
- **Word Order**--Select this option to let the user enter the words you specified in a different order.

## Erase Feedback (Text Entry Response Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Text Entry Response Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

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For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Text Entry Response Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.



**Change Type**  
**(Text Entry Response Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
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Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display** **(Text Entry Response Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

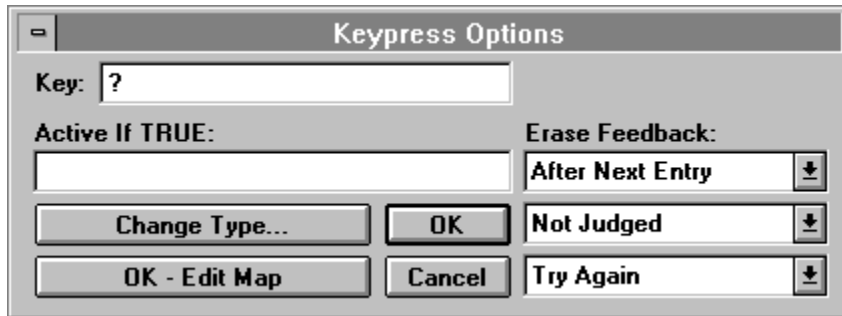
**OK**  
**(Text Entry Response Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Keypress responses

Use keypress responses when you want the user to match a response by pressing a key or key combination on the keyboard. This response type is ideal for multiple choice tests and for using a letter to identify objects on the screen.

Click a part of the Keypress Options dialog box for more information:



The image shows a dialog box titled "Keypress Options". It contains the following elements:

- A "Key:" label followed by a text input field containing a question mark "?".
- An "Active If TRUE:" label followed by an empty text input field.
- An "Erase Feedback:" label followed by a dropdown menu showing "After Next Entry".
- A "Change Type..." button.
- An "OK" button.
- A "Not Judged" dropdown menu.
- An "OK - Edit Map" button.
- A "Cancel" button.
- A "Try Again" dropdown menu.

For instructions on setting up keypress responses, see "Waiting for a single key" in Chapter 4, "Creating Interactions," in *Using Authorware*.

**Note:** This option isn't for setting up optional keys for a response. Response types for which you can use optional keys include an Optional Key option in their dialog boxes.

## Key (Keypress Options dialog box)

In this field you enter one or more keys that the user can press to match the response. The keys you enter in this field are displayed as the title of the attached icon. The keys you can use are listed in the table following this description.

You can set up several types of special keypress responses:

- To enter several keys, use an "or" bar (|) to separate them: `a|e|i|o|u|1|2|3`.
- Keypress responses are case sensitive. To let users enter an uppercase or a lowercase character, specify both by using the "or" bar (|). For example, if the user can press either `h` or `H`, type `h|H` in the Key field.
- For Control keys, type `Ctrl`, followed by the key you want the user to press with the Control key. For example, to set up a Control-A keypress response, type `CtrlA` in the Key field.
- To let users type a question mark as a response, put a backslash (\) before it. The backslash indicates that the character following it should be taken literally. You must also type a backslash to specify a vertical bar (|) as an anticipated response. You can specify the backslash itself as an anticipated response by typing two backslashes.
- To allow for unanticipated responses, create a catch-all keypress response that matches any key by entering a question mark (?) in the Key field. This technique is useful for responding to users when they press a key you haven't specified. Place the catch-all response to the right of any other result icons so that correct keypress responses are matched first.

If you plan to run an Authorware pieces on both Windows and Macintosh computers, include the keys used by both computers. By typing the key name rather than pressing the key, you can activate keys that are not available on your keyboard. Then, when the piece is run on a computer on which these keys are available, they will be active.

The following table lists the key names you can use in the Key field:

Key name	Windows key	Macintosh key
Alt	Alt key	Option key
Backspace	Backspace key	Backspace or Delete key
Break	Break key	none
Clear	none	Clear key
Cmd	Ctrl key	Command (Apple) key
Control	Ctrl key	Control key
Ctrl	Ctrl key	Control or Command key
Delete	Del or Delete key	Delete or Backspace key
DownArrow	down arrow key	down arrow key
End	End key	End key
Enter	Enter key	Enter key (on keypad)
Esc	Esc key	Esc key
F1 - F15	F1 - F15 keys	F1 - F15 keys
Help	none	Help key
Home	Home key	Home key
Ins or Insert	Insert or Ins key	none
LeftArrow	left arrow key	left arrow key
PageDown	Pg Dn key	Page Down key
PageUp	Pg Up key	Page Up key
Pause	Pause key	none
Return	Enter	Return

RightArrow	right arrow key	right arrow key
Shift	Shift key	Shift key
Tab	Tab key	Tab key
UpArrow	up arrow key	up arrow key

## Active If TRUE (Keypress Options dialog box)

Use this option to specify that the keypress response is active only when the condition you enter in this field is true.

To match a range of keys, use the `Key` variable in the Active If True field. For example, `Key >= "a" & <= "z"` causes only the keys a through z to match the response.



## Erase Feedback (Keypress Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Keypress Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Keypress Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

## **Change Type** **(Keypress Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Keypress Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display** **(Keypress Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

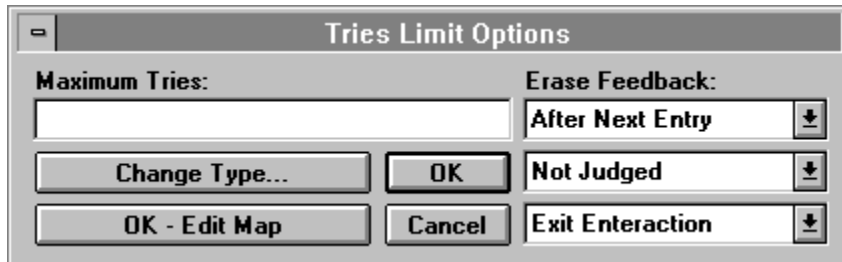
**OK**  
**(Keypress Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Tries limit responses

Use a tries limit response when you want Authorware to branch to an icon after certain number of tries, whether or not the user has matched a response. Including a tries limit response is useful if you want to display hints or messages after so many tries.

Click a part of the Tries Limit Options dialog box for more information:



For instructions on setting up tries limit responses, see "Limiting the number of tries" in Chapter 4, "Creating Interactions," in *Using Authorware*.



## Maximum Tries (Tries Limit dialog box)

In this field you enter either the number of tries, or a variable representing the number of tries, that the user can make before Authorware branches to the tries limit result icon.

For example, if you enter 3 in this field, the user can respond either once or twice without branching to the tries limit result icon. If the user's third response matches an anticipated response with Exit Interaction branching, Authorware ignores the tries limit. Otherwise, Authorware matches the tries limit response.

Tries limit responses are active for only one response--in this example, the third try. If you let the user respond again after Authorware matches the tries limit result icon, Authorware will not match it again.

To display the same message for every response entered after the first two responses, use a conditional response type. For example, type `Tries >2` as the condition.

## Erase Feedback (Tries Limit dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the Effects dialog box. For more information, see "Prevent Automatic Erase" on page 208.

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Tries Limit dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.

## Exit Branching (Tries Limit dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

**Change Type**  
**(Tries Limit dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Tries Limit dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display** **(Tries Limit dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

**OK**  
**(Tries Limit dialog box)**

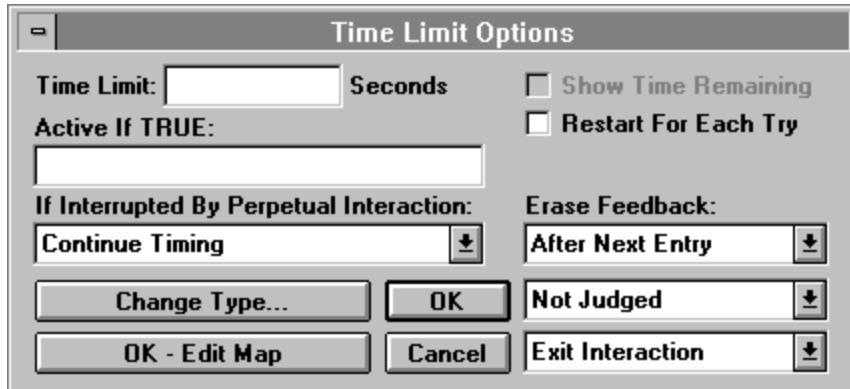
Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.



## Time limit responses

Use a time-limit response when you want Authorware to branch to a specific icon after a certain amount of time in the interaction.

Click a part of the Time Limit Options dialog box for more information:



The screenshot shows the "Time Limit Options" dialog box. It has a title bar with a close button and the text "Time Limit Options". Inside, there are several sections: "Time Limit:" with a text input field and the label "Seconds"; "Active If TRUE:" with a text input field; "If Interrupted By Perpetual Interaction:" with a dropdown menu showing "Continue Timing"; "Erase Feedback:" with a dropdown menu showing "After Next Entry"; and a section with four buttons: "Change Type...", "OK", "Not Judged" (with a dropdown arrow), and "Exit Interaction" (with a dropdown arrow). There are also checkboxes for "Show Time Remaining" and "Restart For Each Try". At the bottom, there are buttons for "OK - Edit Map" and "Cancel".

For instructions on setting up a time-limit response, see "Putting a time limit on a question" in Chapter 4, "Creating Interactions," in *Using Authorware*.

**Time Limit**  
**(Time Limit Options dialog box)**

In this field enter a time limit in seconds.

**Active If TRUE**  
**(Time Limit Options dialog box)**

Use this option to specify that the time limit is in effect only when the condition you enter in this field is true.

## If Interrupted By Perpetual Interaction (Time Limit Options dialog box)

Use these options to turn off timed interactions when the user goes to another activity during the interaction. If the user leaps to a perpetual interaction during a timed interaction (by choosing a command from a perpetual pull-down menu, for instance), you can set up what happens with the following options:

- **Continue Timing** (the default)--Select this option to continue timing while Authorware executes the perpetual interaction.
- **Pause, Resume on Return**--Select this option to stop timing during the leap to the perpetual interaction. When Authorware returns to the timed interaction, it resumes counting down from the time that has already elapsed.
- **Pause, Restart on Return**--Select this option to stop timing during the leap to the perpetual interaction. When Authorware returns to the timed interaction, it starts the countdown from the beginning of the time limit. Authorware restarts the timing even if the time limit had already expired before the leap to the perpetual interaction.
- **Pause, Restart If Running**--This option works the same as the Pause, Restart on Return option except that, when Authorware returns to the timed interaction, it restarts timing only if the time limit had not expired before the leap to the perpetual interaction.

### **Show Time Remaining (Time Limit Options dialog box)**

Select this option to display a clock that shows how much time is left. A separate clock appears for each time-limit response. You can reposition the clock when editing the interaction display by dragging it. You can also display the Time Limit Options dialog box by double-clicking the clock.

### Restart For Each Try (Time Limit Options dialog box)

Select this option to restart counting down from the specified time limit each time the user matches a response.

**Note:** If you have multiple time-limit responses, be sure to set the branching for all but the last time-limit response to Try Again. The user will be able to continue responding to the interaction after receiving feedback from each time-limit result icon. If part of a text-entry response was entered when a Try Again time limit was reached, the user can continue typing a response by clicking the end of the text-entry area.

## Erase Feedback (Time Limit Options dialog box)

Use the Erase Feedback options to set up automatic erasing for the contents of the result icon that Authorware displays when it matches a user response. How these options work also depends on the branching options you define.

You can prevent individual icons from being affected by the automatic erasing option you choose by selecting an option in the [Effects dialog box](#).

Some response types include a Perpetual option, which you can use to set up background interactions, such as a Help menu item that's available throughout the piece. Special rules apply for erasing result icons set up as perpetual. For information, see "Automatic erasing when leaping" in Chapter 4, "Creating Interactions," in *Using Authorware*.

- **Before Next Entry**--Select this option to erase the result icon's display before redisplaying the interaction display, which asks the user to make another response. Be sure to give the user time to see the display before it's erased by using a wait icon to insert a pause.

If you set branching to Continue, the result icon's display remains on the screen until Authorware matches another response. If no other response is matched, Authorware erases the display just before the user can enter another response. If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction.

If you select the Before Next Entry option for the first of two result icons and the user's response matches both, the display in the first icon is erased just before the display in the second icon is displayed.

- **After Next Entry**--Use this option to erase the result icon's display just after the user makes another response. If you set branching to Try Again or Continue, the previous display remains on the screen until the user responds again. If and when the new response is matched, Authorware erases the display. If the user's new response does not match any anticipated response, the display is not automatically erased.

If you set branching to Exit Interaction, Authorware erases the result icon's display when it exits the interaction. However, if the branching takes the user back to another interaction, the display isn't erased until the user enters a response.

- **On Exit**--Select this option to leave the result icon's display on the screen until Authorware exits the interaction, even if the user makes other responses that display the contents of other result icons. Selecting this option can result in overlapping displays. When Authorware exits the interaction and moves to the next icon on the main flowline, it erases any displays.
- **Don't Erase**--Select this option to leave any displays on the screen until you remove them with an erase icon.

## Response Tracking (Time Limit Options dialog box)

Use the Response Tracking options to select a response status for each attached icon. The response status determines whether or not Authorware judges the user's response.

Judging a response is optional, but it's useful if you want to track a user's performance. Authorware provides several system variables that store information based on judged responses. For example, the system variable `TotalCorrect` accumulates the number of correct responses in the total number of judged responses. You can keep this information in the student's file or use it to display feedback.

For more information about tracking performance, see Chapter 5, "Judging, Tracking, and Recording Performance," in *Using Authorware*.

- **Not Judged**--Select this option when you don't want to keep track of the response.
- **Correct Response**--If you want Authorware to keep track of how often the user matches the correct response, select this option.
- **Wrong Response**--If you want Authorware to keep track of how often the user matches the wrong response, select this option.

In the design window, you can see the response status assigned to each result icon. A plus sign (+) appears next to correct responses and a minus sign (-) next to wrong responses. No symbol appears next to responses that are not judged.

**Tip:** You can quickly change the response status in the design window by holding down the Control key and clicking to the left of the icon title. Click repeatedly to cycle through the available response status options.



## Exit Branching (Time Limit Options dialog box)

Use the Exit Branching options to define what Authorware does after it matches a user response and presents the corresponding result icon. You can see the branching option selected for each attached icon in the design window.

- **Try Again**--Select this option to loop back to the interaction icon and ask the user to make another response.
- **Continue**--Select this option to check whether any icons attached to the right of the result icon also match the user's response.
- **Exit Interaction**--Select this option to drop out of the interaction and move to the next icon on the main flowline.

**Tip:** To quickly change the branching option in the design window, press the Control key while you click repeatedly to cycle through the available options.

**Change Type**  
**(Time Limit Options dialog box)**

Click this button to display the Response Type dialog box, in which you can select a different response type.

**Cancel**  
**(Time Limit Options dialog box)**

Click this button to close the options dialog box without changing any settings.

## **OK - Edit Display (Time Limit Options dialog box)**

Click this button to save your choices and to display the icon's contents for editing. The label of this button varies depending on the type of attached icon. For example, it could be named OK - Edit Movie, OK - Edit Sound, or OK - Edit Map.

If the icon is a display icon, you can also display the contents of previous icons that were displayed in the last presentation window. To do so, hold down the Shift key when you click OK - Edit Display. This technique is useful when you want to line up or overlap graphics objects contained in several icons.

**OK**  
**(Time Limit Options dialog box)**

Click OK to save your entries and to close the options dialog box. If you select a different response type and click OK, the response options dialog box for the new response type appears. Authorware retains any entries you made for the previous response type that apply to the new response type.

## Calculation icon

**Related topics:**    [Characteristics of the calculation window](#)  
                          [Using expressions](#)  
                          [Using scripts](#)  
                          [Functions that exit calculation icons](#)

You can insert calculation icons at any point on the flowline or attach them to other icons. Double-click a calculation icon to open a calculation window in which you can enter expressions, comments, and scripts for `If-Then` statements and repeat loops. You can also insert comments to document or clarify what you're doing.

You can exit calculation icons by entering an `Exit` statement. If the calculation icon is attached to another icon, that icon is executed normally.

You can also attach a calculation to an icon without using a calculation icon. (For information, see the [Calculations](#) menu command topic.)

In most cases it's a matter of preference whether to place a calculation icon before another icon or whether to attach it. However, if you attach a calculation to a decision or interaction icon, Authorware executes the calculation each time it uses Try Again branching. If the calculation icon is before the decision or interaction icon, it is executed only once.

While Authorware executes a calculation icon, no other processing takes place and Authorware doesn't respond to mouse clicks or key presses. For calculation icons that contain relatively simple calculations, this delay is imperceptible. However, calculation icons that contain complex repeat loops take longer to execute and cause delays that users may notice.

## Characteristics of the calculation window

You can open several calculation windows at once. You can also define the calculation window's size, its position on the screen, and the font and size of the text you enter into the window.

When you open a new calculation window it is the default size, at the default position. If you resize a window or if you move the window, Authorware remembers the new size and position when you display that window again.

To change the text from the default font, choose the Font and Size commands from the Text menu and select the font family and the size you want. Authorware saves these settings as the new default in the A3W.INI file. Any other text you enter in calculation icons will have the font and size you defined.

Each time you enter or change information in a calculation window, Authorware prompts you to save when you try to close the window or run the file.

There are two shortcuts that bypass this dialog box:

- To close the window and save changes, press the Enter key on the keypad.
- To close the window and cancel changes, press the Esc key.

## Using expressions

Expressions can contain any combination of variables, functions, operators, numbers, character strings, and constants. For more information about expressions, see "Expressions and operators" in Chapter 9, "Using Functions, Variables, and Expressions," in *Using Authorware*.

As you enter expressions in the calculation window, keep the following points in mind:

- You can enter comments in the calculation window by preceding them with two hyphens (--).
- You can continue text from one line to the next by entering a continuation character (↵) by pressing Alt-Enter. However, never split strings enclosed in quotation marks or the names of variables and functions.



## Using scripts

You can use calculation icons to enter scripts for `If-Then` statements and for repeat loops. You could accomplish the same tasks with the Test function or by attaching calculation icons to decision icons. However, scripts are easier to write, to understand at a glance, and to debug, particularly when you're testing for multiple conditions or when you're setting up complex repeat loops. For repeat loops, scripts also greatly increase performance and have the advantage that all the logic is in a single location, rather than being split up in calculation icons, condition fields, and paths.

You can use scripts only in calculation icons, not in the condition fields in dialog boxes. For more information about `If-Then` statements and repeat loops, see "If-Then" and "Repeat With Repeat While Exit Repeat Next Repeat" in *Authorware Reference*.

## Functions that exit calculation icons

Authorware usually executes all the statements in a calculation icon and then exits the icon. However, when Authorware encounters one of the following functions it immediately executes them and exits the calculation icon. Because these functions redirect the flow to another icon, any statements that follow those functions are *not* executed. Therefore, don't enter any statements after these functions.

The following functions immediately exit a calculation icon:

`GoTo, JumpFile, JumpFileReturn, JumpOut, JumpOutReturn, JumpPrint, Quit, QuitRestart, Restart, and Resume.`

**Note:** In previous versions, Authorware executed all statements in a calculation icon before executing these functions.

In the following statement, for example, the beep statement is never executed.

```
if machine:=3
    JumpOut("Notepad.exe")
else
    JumpOut("TeachText")
end if
beep ()
```

## Map icon

You use map icons to group a sequence of icons. By grouping icons in map icons, you can keep a high-level overview of the piece, no matter how many icons it contains. You can place map icons anywhere on the flowline and attach them to interaction icons, decision icons, or framework icons. You can also place map icons inside of other map icons.

Each map icon has its own flowline, identified by the Level caption in the upper right corner. (For map icons inside other map icons, the flowlines are labeled Level 3, Level 4, and so on.) When you double-click a map icon, Authorware opens a window that shows the flowline inside the map icon.

When Authorware encounters a map icon, it enters the map icon and executes the icons it contains in the order in which they appear on the flowline. When it finishes executing the last icon, Authorware exits the map icon and executes the next icon on the main flowline.

If the map icon is attached to an interaction icon, Authorware executes the contents of the entire map icon before branching to the next result icon. The same is true of map icons that are paths attached to decision icons or pages attached to framework icons.

To group icons into a map icon, they must be located next to one another on the flowline. To create a map icon, select the icons you want to group, choose Group from the Edit menu, and name the resulting map icon. To again display the icons individually, select the map icon and choose Ungroup from the Edit menu.

**Note:** If you attach a calculation icon to a map icon and then delete the map icon with the Ungroup command, Authorware attaches the calculation icon to the first icon in the group.

## Digital Movie icon

**Related topics:**    [Types of digital movie](#)  
                          [Using movie in Authorware files](#)  
                          [Related variables and functions](#)  
                          [Digital Movie Options dialog box](#)

You use the digital movie icon to import digital movies created with other applications into your Authorware piece.

You can display digital movies in one location or use a motion icon to move them. You can also control other details, such as the number of times the movie is played and the speed at which it is played.

A digital movie is either loaded internally or referenced externally, depending on the type of movie.

- Internally loaded movies are loaded into the Authorware file, increasing the size of the file. You can use erase transitions with internally loaded movies.
- Externally referenced movies are not copied into the Authorware file. You cannot use erase transitions with externally loaded movies.

You must keep the externally referenced movie where Authorware has access to it when it encounters the movie's icon on the flowline. You must ship externally stored movies along with your packaged Authorware piece. Authorware and RunA3W look for external movies in the directories specified in the Content Search Path field in the File Setup dialog box or in the `SearchPath` variable.

**Tip:** You can click a digital movie icon with the right mouse button to preview the movie. Or you can select the digital movie icon, choose Get Info from the Edit menu, and click the Preview button.

## Digital movie file types

You can use the following digital movie file types:

- **Macromedia Director movies**--These movies are stored externally. If the Director movie includes sequences in which users can interact with the movie by using the mouse or the keyboard, you can incorporate that interactivity into the Authorware file.

For more information, see *Using Director Movies*.

- **Microsoft Video for Windows (.AVI) files**--These movies are stored externally.

To use Video for Windows movies, make sure that the Authorware A3VFW.XMO driver file is installed in the same folder as A3W.EXE on your computer and in the same folder as RUNA3W.EXE on users' computers. Also make sure that the Video for Windows software is properly installed on your computer and on users' computers.

- **QuickTime for Windows (.MOV) files**--These movies are stored externally.

To use QuickTime for Windows movies, make sure that the Authorware A3QT.XMO driver file is installed in the same folder as A3W.EXE on your computer and in the same folder as RUNA3W.EXE on users' computers. Also, make sure that the QuickTime for Windows player software is properly installed on your computer and on users' computers.

- **Autodesk Animator and Autodesk Animator Pro (.FLC, .FLI, and .CEL) files**--These movies are loaded into the Authorware file.

- **MPEG movies**--These movies are stored externally. They were created with MPEG technology, which integrates the compression of digital movies and synchronous audio.

- **Movies created from lists of .DIB files imported from Macromedia Director**--These files consist of numbered sequences of .BMP files with the same filename root (Name0001 through Name000n). By selecting one file as the start frame, Authorware uses the remaining files with that filename to build a movie.

- **PICS movies loaded into Authorware for Macintosh files**--These movies are stored internally when the file is converted to Authorware for Windows. PICS movies cannot be loaded in the Authorware for Windows Load Movie dialog box.

- **Macintosh Movie Editor (.MVE) files**--These movies are created with the movie editor that shipped with earlier versions of Authorware for Macintosh. To use these movies, load them into the Authorware file.

Make sure that all Macintosh Movie Editor files use the .MVE file extension. Earlier versions of Authorware gave these movies the .MOV file extension, which is now used for QuickTime for Windows movies.

For an overview of the components needed for each type of movie, see the table in "What you need to distribute" in Chapter 10, "Distributing a Piece," in *Using Authorware*.

## Using movies in Authorware files

There are two main ways to use digital movies in Authorware:

- **Overlay the digital movie on the screen**--With this method, the movie plays on the entire screen or on a section of the screen. No other items are shown at the same time. Movies overlaid on the screen are generally rectangular and opaque.
- **Integrate the digital movie into the screen display** along with other display elements--With this method, the movie plays on a section of the screen while other items are displayed concurrently. Integrated movies are generally controlled by custom variables. If you are integrating movies into the display, keep them small for optimal performance.

## Variables and functions related to digital movie icons

The following system variables and functions are useful when you are working with digital movie icon:

### Variables

- `MediaLength`--Contains the number of frames in the specified digital movie or video.
- `MediaPlaying`--Indicates whether the specified digital movie or video is playing.
- `MediaPosition`--Contains the current frame of the specified digital movie or video.

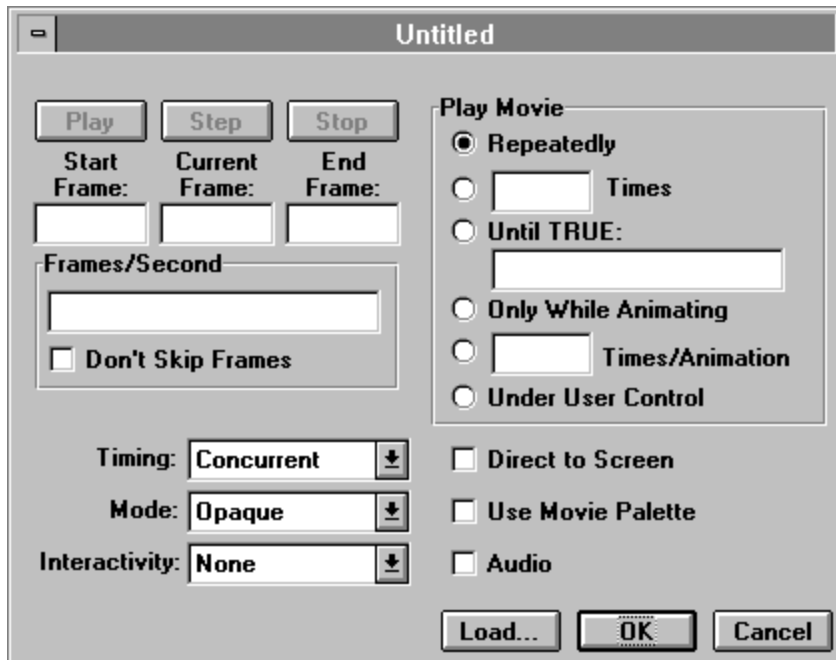
### Functions

- `MediaPlay`--Starts playing the specified digital movie or video clip. If the movie is already playing, it is reset to its start frame and starts over from there.
- `MediaPause`--Pauses a digital movie or video clip that is playing.
- `MediaSeek`--Starts the movie or video at the specified frame.

For more information on variables and functions, see *Authorware Reference*.

## Digital Movie Options dialog box

Double-click a digital movie icon to display its options dialog box. Click a part of the dialog box for more information:



When you first double-click a digital movie icon, or when you open a digital movie icon that has no movie loaded into it, the file selection dialog box appears so you can select a movie to load.

You can specify the layer in which a movie is played in the Effects dialog box (on the Attributes menu). Externally referenced movies are always played in the top layer. If you specify any other layer, Authorware ignores the request.



## **Play, Step, Stop buttons (Digital Movie Options dialog box)**

### **Play**

Click Play to play the digital movie from the frame in the Start Frame field to the frame in the End Frame field.

### **Step**

Click Step to move through the digital movie one frame at a time.

### **Stop**

Click Stop to stop playing the digital movie.

## Start Frame/Current Frame/End Frame (Digital Movie Options dialog box)

In these fields you specify which digital movie frames you want to play. When you first load a movie, the numbers of the first and last frames in the movie file are shown in the **Start Frame** and **End Frame** fields. If you want to play only specific movie frames, type frame numbers, variable names, or expressions in these fields.

To play the movie backward, enter the higher frame number in the **Start Frame** field and the lower frame number in the **End Frame** field. You cannot play externally stored movies backward. The MIDI component of a QuickTime movie is not played when you play the movie backwards.

### Current Frame

This field shows which frame is currently displayed.

### **Frames/Second (Digital Movie Options dialog box)**

In this field you can adjust the speed of an externally stored digital movie if its format supports adjustable speeds. To speed up or slow down the movie, enter a number, variable name, or expression in this field. If the speed is too fast to display all frames at the selected rate, Authorware skips frames to approximate the chosen speed, unless you've selected the Don't Skip Frames option. If this field is blank, the movie plays as fast as possible.

### **Don't Skip Frames (Digital Movie Options dialog box)**

Select this option to play a movie as fast as possible without skipping frames, but no faster than specified in the Frames/Second field. Using this option may result in the movie playing at different speeds on different systems, but it generally yields the most pleasing results.

## Timing (Digital Movie Options dialog box)

Use the Timing options to control when the movie is played, in relation to other factors:

- **Wait Until Done**--Select this option to wait until the movie is finished playing before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to play the movie and immediately execute the icons after the digital movie icon, so that other icons are presented while the movie plays.
- **Perpetual**--Select this option to let the user activate the movie after Authorware exits the digital movie icon. Authorware monitors the variables specified in the Movie Options dialog box; if the values change, Authorware immediately presents the movie icon.

For example, you could enter a custom variable in the Frames/Second field to control the movie's playback speed. If you select the Concurrent or Wait Until Done options, Authorware plays the movie according to the value of the variable when Authorware encounters the movie icon. If you select the Perpetual option and the value of the variable changes, the playback of the movie changes to reflect the new value.

## Mode (Digital Movie Options dialog box)

Use the Mode options to control how the digital movie looks in relation to other objects on the screen. Only the Opaque mode is available for external movies.

- **Opaque**--Select this option to draw all frames completely, with no transparent pixels. The movie plays faster and takes up less space.
- **Transparent**--Select this option to allow other objects to show through the movie's frames. You can select from the color palette which color is to be transparent; that is, the color through which objects in the background will show. By default, objects show through the white pixels for Macintosh Movie Editor and PICS movies and through the black pixels for Autodesk Animator movies.
- **Matted**--Select this option to place an opaque matte behind the movie's frame. The shape of the matte for each frame matches the shape of the movie image. By default, white pixels are trimmed from the edge of the frames for Macintosh Movie Editor and PICS movies; black pixels are trimmed from the edge of the frames for Autodesk Animator movies. You can change these mattes from black to white pixels.

When you first select the Matted option, the message "Creating mattes" appears while Authorware builds the irregularly shaped mattes for each frame.

- **Inverse**--Select this option to change pixels in the movie frames from white to black and from black to white, as necessary to allow objects below to show through during playback. If a color movie is set against a colored background, this effect displays frames in the movie's inverse color, which can produce unexpected results.

## Interactivity (Digital Movie Options dialog box)

Use the Interactivity options to determine whether users can interact with a Director movie, using the interactivity that's built into that movie.

- **On**--Select this option to let Authorware users use any interactivity built into the Director movie.
- **Off**--Select this option to make the interactivity built into the Director movie unavailable to Authorware users.

For more information, see *Using Director Movies*.

## Play Movie (Digital Movie Options dialog box)

Use these options to control how the digital movie proceeds.

- **Repeatedly**--Select this option to play the movie over and over, until you either erase the movie or pause the movie with the `MediaPause` function. For more information, see "MediaPause" in *Authorware Reference*.
- **Times**--In this field you specify how many times the movie plays. If you enter 0, only the first frame is displayed.
- **Until True**--Select this option to play the movie repeatedly until the condition you enter in the field becomes true. For instance, you would enter the system variable `MouseDown` to play the movie repeatedly until the user clicks the mouse button.
- **Only While In Motion**--Use this option to place the movie's first frame on the screen, but to play the movie only while it is being moved by a motion icon or dragged by the user. This option is useful for special effects such as simulating walking or jumping. For example, you could show a figure's arm and leg movements with a digital movie icon while the user is dragging the figure. This option is not available for externally stored movies.
- **Times/Cycle** --This option is similar to the Only While In Motion option, except that it limits the number of times the movie plays during each repetition of the animation. For example, you could simulate the moon's orbit around the earth with a combination of a Path to End animation for the orbital path and a movie that shows the moon's rotation.

When you use the Times/Cycle option, Authorware adjusts movie playback speed to complete the indicated number of plays during each repetition of the animation, regardless of the value in the Frames/Second field. In the previous example, if you set the time of the animation to 10 seconds, Authorware would ignore the value in the Frames/Second field and increase the movie's playback speed in order to complete the moon's rotation during the shorter "month." This option is not available for externally stored movies.

**Note:** You can use motion icons to move movies with all formats; however, externally stored movies and movies played direct to screen may not move smoothly.

- **Under User Control**--For QuickTime movies, select this option to display the movie controller on the user's screen, so the user can freeze frames, back up, play slowly, and otherwise control the movie. The user can move the controller by dragging it.

This option is dimmed if you selected Concurrent from the Timing options. The button is also dimmed if the digital movie is not a QuickTime movie.

On the Macintosh, this checkbox replaces the Show Controller checkbox. If you are converting courses from previous versions, Authorware makes this adjustment automatically.



## **Direct to Screen**

### **(Digital Movie Options dialog box)**

Select this option if you always want the movie to play in front of any other objects on the screen. Turn Direct to Screen off if you want to assign a movie to a layer other than the one in front. (Externally stored movies are always played direct to screen.)

The Direct to Screen option is only available when the Opaque mode is selected. Externally stored movies are always played direct to screen.

**Use Movie Palette  
(Digital Movie Options dialog box)**

Select this option to use the digital movie's color palette instead of the Authorware color palette. This option is not available for all movie formats.

## Audio

### (Digital Movie Options dialog box)

Select this option to play any sound that is included in the movie file. If the type of movie you loaded doesn't support sound, this option is dimmed.

**Note:** To hear audio on a Windows computer, users must have an audio card and use Windows 3.1.

## Load (Digital Movie Options dialog box)

Click Load to display the Load Movie dialog box. This dialog box also appears automatically whenever you open an empty movie icon or when you run the file and Authorware encounters an empty movie icon.

### Options

The Options button becomes active when you select a movie that's stored internally. Click Options to display the Movie Import Options dialog box.

- **Use Full Frames** -- Select this option to load each complete frame of the movie, rather than just the parts of each frame that have changed from the previous frame. Loading complete frames takes more memory, but it's a good choice when you want to play the movie backward (the movie will usually play faster) or when you want to play the movie one frame at a time.
- **Use Black as the Transparent Color** -- Use If you select either Transparent or Matte as the display mode for the movie, use this option to select black rather than white as the color that becomes transparent.

## Sound icon

**Related topic:**     [Sound Options dialog box](#)

Use sound icons to integrate a variety of sounds to make your Authorware pieces more interesting and effective. You can place sound icons anywhere in the file, load sounds from various sources, and adjust the playback options to suit your needs.

Authorware includes samples of prerecorded music and sound effects. You can integrate these sounds into your Authorware piece and experiment with them.

**Tip:** You can preview a loaded sound without opening the sound icon. Click the sound icon with the right mouse button or press Control-Alt as you click the sound icon. Authorware plays the sound once.

To play sounds on Windows computers, you need Windows 3.1 and an audio card in your computer and in the users' computers. For more information, consult your Windows documentation.

### Variables and functions related to the sound icon

You can use the variable `SoundPlaying` to check whether a sound is playing.

The `Preload` function loads a sound into a file so that it's ready to play.

For more information on variables and functions, see *Authorware Reference*.

## Sound Options dialog box

Double-click a sound icon to display the Sound Options dialog box. Click a part of the dialog box for more information:



## Concurrency (Sound Options dialog box)

Use the Concurrency options to control when the sound is played in relation to the other events in the file.

- **Wait Until Done**--Select this option to wait until the sound is finished before proceeding to the next icon on the flowline.
- **Concurrent**--Select this option to activate the sound and then present the icons that follow the sound icon, so that the sound is played while the other icons are presented. This feature is useful for playing a sound that accompanies an action on the screen.
- **Perpetual**--Select this option to make it possible to activate after Authorware exits the sound icon. Authorware monitors the variables you specify in this dialog box and plays the sound if the values change. For example, you could select the Perpetual option and enter a condition in the Start Playing When True field. When the condition becomes true, Authorware plays the sound.

### **Speed (% of Normal)** **(Sound Options dialog box)**

In this field you specify the speed at which the sound is played. The normal value (100%) plays the sound at its recorded speed; values less than 100% play more slowly, and values greater than 100% play faster than the recorded speed. You can type a number or enter a variable in the field. On Windows computers, not all sound cards support variable-speed playback; all Macintosh computers support variable-speed playback.



**Start Playing When TRUE**  
**(Sound Options dialog box)**

Authorware begins playing the sound whenever the variable or conditional expression you enter in this field changes from false to true.

## **Play and Stop buttons (Sound Options dialog box)**

### **Play**

Click the Play button to play a sound. Authorware plays the sound you have loaded, as defined by the other options you selected in the dialog box.

On Windows computers, sounds may not play back if their format is not compatible with the sound card. Eight-bit monophonic 11- and 22-kHz uncompressed sound files, as well as 16-bit sounds, can be played on all MPC-compatible sound cards if the equipment supports it. On the Macintosh, Authorware plays sounds recorded in stereo only if your Macintosh supports stereo sound.

### **Stop**

Click the Stop button to stop playing the sound.

## Play Sound (Sound Options dialog box)

Use these options to control how many times the sound is played:

- **Once (the default)**--Select this option to play the sound once.
- **Times**--Select this option to play the sound several times. Type a number or variable name in the text entry field.
- **Until True** --If you select Perpetual from the Concurrency options, you can play the sound repeatedly by entering a variable name or expression in this field.
- **After Previous Sound**--If you select Concurrent or Perpetual from the Concurrency options, you can use this option to delay playing the current sound until the previous sound is finished playing.

## **Load**

### **(Sound Options dialog box)**

Click Load to display a standard file dialog box in which you can select a sound to load into an Authorware piece. You can load .WAV, .PCM, and AIF files.

## Info (Sound Options dialog box)

Click this to display information about the sound you loaded.

- **Length**--Shows how much room the sound takes up.
- **Compression**--On Windows computers, always shows "None." On the Macintosh, shows "None" or the compression ratio which is either a 3:1 or 6:1.
- **Channels**--Shows whether the sound includes one waveform (mono) or two waveforms (stereo). Stereo sounds are generally richer, but also use twice as much disk space.
- **Sample Size**--Determines how much information is stored about the sound. The sample size, combined with the sample rate and the number of channels, determines the sound quality. The sample size can be either 8 bits per sample (256 samples) or 16 bits per sample (65,536 samples); use the 16-bit option for higher quality sound.
- **Sample Rate**--Measures sound frequency at regular intervals. The higher this rate, the more intervals are captured and the higher the quality. The sample rate, combined with the sample size and the number of channels, determines the sound quality. The sample rate is measured in kilohertz (kHz).
- **Data Rate**--Shows the rate at which Authorware reads the sound from the disk when it plays the sound. (The data rate is calculated with this formula: channels x sample size x sample rate.)
- **Imported From**--Shows the filename and the path of the file that contains the sound you loaded.

## Video icon

**Related topics:**    [Variables and functions related to the video icon](#)  
                              [Video Options dialog box](#)

Use the video icon to include a video clip from a videodisc player in an Authorware piece. To play the video, connect a videodisc player to your computer and then place a video icon in the Authorware file where you want the sequence to play.

You can specify overlay drivers and players by choosing Video Setup from the File menu. For more information about those options, see the [Video Setup](#) topic. For a list of supported equipment, see the Appendix "Video Device Support" in *Authorware Reference*.

### Incorporating video displays in Authorware

You can incorporate video into Authorware in two ways:

- **Use an external monitor**--Simply connect the video device to the computer and to the monitor. No special video overlay hardware is required.
- **Install a video overlay card**--If you install an overlay card in your computer, you can display video on the same screen that displays the rest of your Authorware piece, so that you can integrate video sequences into the piece. For example, you might play video on one part of the screen while you ask the user questions about it on another part of the screen.

To use this option, you must install a video overlay card in each computer on which the piece will be run and connect the video player to the overlay card and the computer's serial port. You also need to select other options, such as where the video will play on the screen.

## Variables and functions related to the video icon

The following variables and functions are useful for working with video icons:

### Variables

- `VideoDone`--Indicates whether the current video is finished playing.
- `VideoFrame`--Contains the number of the frame being played.
- `VideoResponding`--Indicates whether communication is established with the video device.
- `MediaLength`--Contains the number of frames in the specified digital movie or video.
- `MediaPlaying`--Indicates whether the specified digital movie or video is playing.
- `MediaPosition`--Contains the current frame of the specified digital movie or video.

### Functions

- `VideoChromaKey`--Determines the chroma key of the video overlay device.
- `VideoDisplay`--Turns the video display on and off.
- `VideoPause`--Pauses the video.
- `VideoPlay`--Plays the video to the specified frame at the specified speed.
- `VideoSeek`--Moves the video to the specified frame.
- `VideoSend`--Sends a message to the video player.
- `VideoSound`--Controls the sound for a video sequence.
- `VideoSpeed`--Sets the speed for the next video sequence to be played.
- `VideoStep`--Moves the video backward or forward by a single frame.
- `VideoText`--Shows text messages for video players that support a report generator.
- `MediaPlay`--Starts playing the specified digital movie or video clip. If the movie is already playing, it is reset to its start frame and starts over from there.
- `MediaPause`--Pauses a digital movie or video clip that's playing. If the movie is already paused, the function has no effect.
- `MediaSeek`--Starts the movie or video at the specified frame.

For more information on variables and functions, see *Authorware Reference*.

## Video Options dialog box

Double-click a video icon to display the Video Options dialog box.

The video options dialog box can appear in two ways depending on whether the Options button has been clicked. The expanded (full) view is shown below. Click a part of the dialog box for more information:

The screenshot shows a dialog box titled "Show video". At the top, it says "Associated display: video screen". Below this, there are input fields for "Start:" and "End:", each followed by "<- Set" and "Go To" buttons. To the right of these are buttons for "Replay", "OK", "Cancel", and "Collapse". Below the input fields is a row of video control icons: a double left arrow, a single left arrow, a double right arrow, a single right arrow, a pause icon, a play icon, and a stop icon. Further down, there are three dropdown menus: "Timing" (set to "Wait Until Done"), "Playback" (set to "Normal Speed (3)"), and "Freeze" (set to "Last Frame Shown"). To the right of these are four checked checkboxes: "User Control", "Frame Numbers", "Audio Channel 1", "Audio Channel 2", and "Video On". At the bottom, there is a section titled "Stop At End Frame Or" with two options: "When TRUE:" (with an empty input field) and "When Any Key Is Pressed".



## Associated display (for use with video overlay cards) (Video Options dialog box)

If you are using a video overlay card to display video on the computer screen, you need to associate the video with a display icon, so that Authorware knows where to overlay the video.

To associate a display icon with a video, add a display icon before the video icon on the flowline. Open the video icon and click the display object in the presentation window. When you run the file, the video icon plays the video only when the display is on the screen. The video is scaled to the boundaries of the display icon and it appears where the object matches the chroma key color.

For information about the setting up the chroma key color, see the [File Setup](#) topic. For information about working with video, see the sections starting with "Using video playback devices" in Chapter 2, "Working with Contents," in *Using Authorware*.

## **Replay**

### **(Video Options dialog box)**

Click Replay to play the video sequence specified by the frame numbers in Start and End fields, according to the other options you have selected.

## **Start and End**

### **(Video Options dialog box)**

In these fields you specify the range of frames you want to play. You can choose to play one frame or a series of frames. Video frames are numbered consecutively.

In the Start field, you specify the first frame of the sequence you want to play; in the End field you specify the last frame. You can enter a number, variable name, or expression into either field. If the number in the Start field is greater than the number in the End field, the video sequence plays in reverse. To display a single frame, enter its number in both fields.

## **Set**

### **(Video Options dialog box)**

Click Set next to either the Start field or the End field to automatically enter the number of the frame that is currently displayed.

**Tip:** An easy way to specify a video sequence is to use the controller buttons to move to the first frame you want to play and click the Set button next to the Start field. Then move to the last frame you want to play and click the Set button next to the End field.

**Go To**  
**(Video Options dialog box)**

Click Go To to jump to the frame displayed in the Start field or the End field.

## **Controller**

### **(Video Options dialog box)**

Use the video controller to run the video clip. The four buttons on the right advance the video; the four on the left reverse it. The controller plays the video forward and backward at four speeds: the fastest possible speed, the regular speed, the slowest possible speed, and one frame at a time.

## Options/Collapse (Video Options dialog box)

Click **Options** to display additional options.

The name of the button changes to **Collapse** when the additional options appear. Click Collapse to display the smaller version of the Video Icon Options dialog box.

## Timing (Video Options dialog box)

Use the Timing options to control whether other icons are presented while the video is playing:

- **Wait Until Done**--Select this option to wait until the video is finished playing. Previously started perpetual or concurrent actions continue while Authorware presents the video icon.
- **Concurrent**--Select this option to continue presenting icons while the video plays.



## **Playback**

### **(Video Options dialog box)**

Use the Playback options to select a pause or one of five speed settings. The speed you select applies whether the video is playing forward or backward. If you select the User Control option, the user can override the playback speed you select here.

The numbers in parentheses correspond to the setting of the `VideoSpeed` system function. For more information, see "VideoSpeed" in Chapter 3 in *Authorware Reference*.

## Freeze / Until (Video Options dialog box)

### Freeze

Use the Freeze options to specify whether a frame remains on the video screen after the video is finished playing. You can also specify how long the frame remains on the screen.

- **Never**--Select this option to remove all video frames from the screen, either at the end of the sequence or when the user closes the controller.
- **Last Frame Shown**--Select this option to leave on the screen the last video frame displayed when the sequence stops playing or when the user closes the controller.
- **End Frame**--Select this option to leave on the screen the frame specified in the End field. If the user closes the controller while another part of the sequence is playing, Authorware moves to the end frame and displays it.

### Until

If you enter a condition in this field, the frame specified by the Freeze option remains on the screen until the condition becomes true. If you don't enter a condition, the specified frame remains on the screen until Authorware encounters the next video icon, the associated display is erased, or the user exits the file.

## Stop At End Frame Or (Video Options dialog box)

Use these options to set up a condition to stop playing the video.

- **When True** --Select this option to stop playing the video when the condition you enter in this field becomes true, regardless of whether the sequence you selected has finished playing.
- **When Any Key Is Pressed**--Select this option to stop the video when the user presses any key on the keyboard.

## User Control (Video Options dialog box)

Select this option to display the video controller on the user's screen, so that the user can freeze frames, back up, play slowly, and otherwise control the video. The user can move the video controller by dragging it.

The User Control checkbox is dimmed if you've selected Concurrent from the Timing options.

**Tip:** Users may not know how to operate the video controller. Be sure to give them instructions for using the buttons and for closing the controller.

**Frame Numbers**  
**(Video Options dialog box)**

Select this option to display frame numbers on the user's screen.

### **Audio Channel 1 and 2 (Video Options dialog box)**

Select Audio Channel 1 to play the sound on channel 1 of the video player; select Audio Channel 2 to play the sound on channel 2. The sound channel usage may vary with each player or videodisc.

## **Video On** **(Video Options dialog box)**

Select this option to display the video image, either on the video screen or in the on-screen area if you're using an overlay. If you deselect this option, there's no image when you play the video, which is useful if you just want to play the sound on either or both audio channels.

## Start flag

When you place the start flag on the flowline, the Run from Flag command in the Try It menu becomes active. When you choose Run from Flag, Authorware executes the first icon after the start flag. Authorware also sets all variables to their initial values and clears the presentation window, as if you were running the file from the beginning.

The start and stop flags are tools to make authoring easier; Authorware ignores them in the packaged piece.

As your file gets larger, it's often helpful to place the start flag at the beginning of the sequence you're working on and the stop flag at the end of that sequence. You can then use the Run from Flag command to present only the icons between the flags.

There's only one start flag and one stop flag. Flags remain at the position where you place them until you move them or click their place in the icon palette. To move a flag, drag it to a new position. To remove a flag from its location and return it to the palette, click its position in the palette (this is useful if you forget where you placed a flag).

You can also use the start and stop flags when debugging with the trace window. For more information, see the [Trace Window](#) topic.



## Stop flag

When Authorware encounters a stop flag, it stops running the file. To continue running the file, choose Proceed from the Try it menu.

The start and stop flags are tools to make authoring easier; Authorware ignores them in the packaged piece.

As your file gets larger, it's often helpful to place the start flag at the beginning of the sequence you're working on and the stop flag at the end of that sequence. You can then use the Run from Flag command to present only the icons between the flags.

There's only one start flag and one stop flag. Flags remain at the position where you place them until you move them or click their place in the icon palette. To move a flag, drag it to a new position. To remove a flag from its location and return it to the palette, click its position in the palette (this is useful if you forget where you placed a flag).

You can also use the start and stop flags when debugging with the trace window. For more information, see the [Trace Window](#) topic.

## Icon color palette

You can apply one of the six colors in this palette to the icon you select. Use this feature to provide a quick visual overview of related icons, to help you locate particular icons, to organize your piece by modules, or for anything else that occurs to you.

To apply a color, select the icon and then click the color you want.

## Toolbox

Click a part of the illustration of the toolbox for more information:



You use the tools in the Authorware toolbox to create and modify simple text and graphics in the presentation window. You can also use the Import command on the File menu to import more complex text and graphics created in other applications.

## Icon display (Toolbox)

The icon display shows an image of the icon you're editing. The icon's title is at the top of the toolbox.

You can use the icon display in the following ways to work with the corresponding icon:

- Double-click the icon display to select all of the display objects the icon contains.
- For icons attached to interaction icons, you can change the branching by pressing the Control key while you click the branching symbol at the bottom of the icon.
- For icons attached to interaction icons, you can open the Response Type options dialog box by double-clicking the response type symbol on top of the icon.

## Pointer tool (Toolbox)

Use the pointer tool to move or resize objects. To move an object, select the pointer and drag the object to a new location. For fine adjustments, click the object with the pointer to select it and then press one of the arrow keys on the keyboard. Each keystroke moves the object one pixel in the corresponding direction.

To resize an object, point to one of the handles around the edges of the object, and drag.

If you click an object and hold down the mouse button without moving the mouse, the cursor changes into a hand. When you move an object with the hand, you can see the complete object as you move it. With the regular pointer, only the outline of an object is shown as you drag it, which allows the screen to update more quickly as you reposition the object.

If you press the Shift key while dragging an object, movement is constrained to vertical, horizontal, and 45° angles. If you press the Shift key while moving the handle of an object, the object is resized and maintains its original proportions. This technique prevents a circle from turning into an oval, for example.

## Text tool (Toolbox)

**Related topics:**    [Margins](#)  
                          [Indents](#)  
                          [Tabs](#)  
                          [Alignment](#)  
                          [Scrolling text fields](#)

Use the text tool to create and edit text. You can also cut and paste text using the commands on the Edit menu or import text with the Import command on the File menu.

As you create text, you can use the following options:

- Use the Text menu to define how text is aligned and whether it is displayed as a scrolling text field.
- Press Enter to create separate paragraphs. For each separate paragraph, you can define its attributes--the margins, indents, tabs, and alignment--independently of the attributes of any other paragraph. For imported text, Authorware also recognizes and imports those paragraph attributes.
- Use the text object's handles and markers to define margins, indents and hanging indents, and tabs.

## Margins

As you type text, the left margin is set wherever you click to begin typing; the right margin extends to near the right edge of the screen. Unless you adjust the right margin by dragging its handle, it is automatically adjusted to fit the longest line in the paragraph. If you change the margins, Authorware automatically wraps the text for each paragraph within those margins.

## Indents

You can set an indent for a paragraph's first line, left edge, and right edge. To set an indent, first select the paragraph you want it to apply to. To indent the left edge of the paragraph, drag the top half of the triangle on the left. To indent the first line, drag the bottom half of the triangle on the left. Notice that when you drag the top half of the triangle, both halves move; when you drag the bottom half, only the bottom half moves. To drag the top half without moving the bottom half, hold down the Shift key. To indent the right edge of a paragraph, drag the triangle on the right.



## Tabs

Tabs are represented by triangles on the text-width line. To add one or more tabs, click anywhere on the line. Move tabs to the right or left by dragging them. To remove a tab, drag the marker to the right or left margin and release the mouse button.

Normal tabs are represented by a triangle and decimal tabs by an arrow. Decimal tabs are useful for aligning numbers or the right edges of words. To change a normal tab to a decimal tab or vice versa, click the marker.

Authorware recognizes the tabs from some word-processing applications, but you'll have to set tabs in Authorware to format your text appropriately. Tabs are not created automatically when you paste the text.

## Alignment

You can define how selected text is aligned by choosing Alignment from the Text menu.

## Scrolling text fields

You can create scrolling text fields for selected text by choosing Scrolling Text from the Text menu.

## **Straight line tool (Toolbox)**

Use the straight line tool to draw horizontal, vertical, or 45° diagonal lines. Lines created with this tool stay horizontal, vertical, or at a 45° angle when you move or edit them.

## Diagonal line tool (Toolbox)

Use the diagonal line tool to draw a straight line between any two points. Pressing the Shift key while using this tool makes it behave like the straight line tool.

## **Oval tool (Toolbox)**

Use the oval tool to draw ovals and circles. To draw a circle, hold down the Shift key while drawing.

## **Rectangle tool (Toolbox)**

Use the rectangle tool to draw rectangles with square corners. To draw a square, hold down the Shift key while drawing.

## **Rounded rectangle tool (Toolbox)**

Use the rounded corner rectangle tool to draw rectangles with curved corners.

To reshape a rounded rectangle, select this tool and drag the extra selection handle that appears inside the rectangle. Dragging the handle toward the center of the rectangle makes it more rounded; dragging it toward the outside of the rectangle makes it less rounded.



## **Polygon tool (Toolbox)**

Use the polygon tool to draw multisided objects. You create polygons by clicking the mouse to add points. Polygons can be either closed or open.

To create a closed polygon, place the cursor on top of the starting point and click the mouse button. To create an open polygon, double-click when adding your last corner point. To resize the polygon, select it with the pointer tool and drag the handles. If you hold down the Shift key while dragging, the polygon retains its proportions.

## Shortcuts

Authorware includes full support for keyboard and mouse shortcuts, as accelerators for menu commands and other common operations.

Click a shortcut category below for more information.

### Mouse shortcuts

- [Double-clicking](#)
- [Shift-double-clicking](#)
- [Right-clicking](#)
- [Alt-clicking](#)
- [Alt-double-clicking](#)
- [Control-clicking](#)
- [Control-double-clicking](#)
- [Dragging](#)

### Keyboard Shortcuts

- [System menu](#)
- [File menu](#)
- [Edit menu](#)
- [Data menu](#)
- [Attributes menu](#)
- [Text menu](#)
- [Try It menu](#)
- [Help menu](#)
- [Other](#)

## Mouse shortcuts -- Double-clicking

### Double-clicking this...

### Does this

Display icon	Opens the presentation window
Motion icon, erase icon, wait icon, navigate icon, decision icon, interaction icon, digital movie icon, sound icon, or video icon	Displays the icons options dialog box
Calculation icon	Displays the calculation window
Map icon	Displays the map window
Icon in toolbox	Selects all objects in the current icon except in interactions and decisions, where it displays the options dialog box
Edge of response area	Displays the Response Options dialog box
Pointer tool	Displays Modes palette
Line tools	Displays Lines palette
Oval tool	Displays Color palette
Rectangle or polygon tool	Displays Fill palette
Objects in presentation window	Switches to the icon you double-clicked and selects all objects

## Mouse shortcuts -- Shift-double-clicking

### Shift-double-clicking this...

Display icon

### Does this

Opens the display and/or the icons Options dialog box and keeps the previous contents of presentation window on the screen

## Mouse shortcuts -- Right-clicking

### Right-clicking this...

Display, interaction,  
sound, or  
digital movie icon

Erase icon

Motion icon

### Does this

Previews contents of an icon  
on the flowline

Previews the first object in the Erase list

Previews the icon that will be animated

## Mouse shortcuts -- Alt-clicking

### Alt-clicking this...

Any icon on the flowline

Font Size Up or  
Font Size Down  
(Text menu)

### Does this

Opens the Get Info dialog box for the icon

Changes selected text to the next size  
listed on the Sizes submenu

## Mouse shortcuts -- Alt-double-clicking

**Alt-double-clicking this...**

Response type symbol

**Does this**

Opens the Response Options dialog box without opening the presentation window

## Mouse shortcuts -- Control-clicking

### Control-clicking this...

Branch path  
(in the design window  
or the toolbox)

To the left of the response  
title

Object in the presentation  
window

### Does this

Cycles through the Exit Branching  
options

Cycles through Response Tracking  
options

Lets you select and reposition an object  
not in the currently open icon



## Mouse shortcuts -- Control-double-clicking

### Control-double-clicking this...

Response type symbol

Interaction icon

### Does this

Displays the Response Type dialog box

Opens the interaction display

## Mouse shortcuts -- Dragging

In Windows 95 and Windows NT, you can drag objects -- such as graphics, sounds, and movies -- directly into the presentation window or flowline from outside of Authorware.

- Drag with the left mouse button to import the object into Authorware.
- Drag with the right mouse button to use the Paste Special command with the object.

For example, you can import a Paint document into Authorware by left-dragging the document from the Windows desktop into the Authorware presentation window.

## Keyboard shortcuts -- System menu

Menu command	Shortcut
Author Menus On	Control+Spacebar

## Keyboard shortcuts -- File menu

Menu command	Shortcut
New File	Control+N
Open File	Control+O
Import	Control+Shift+I
Close	Control+W
Save	Control+S
Print Screen	Control+` (tickmark)
Exit	Alt+F4

## Keyboard shortcuts -- Edit menu

Menu command	Shortcut
Undo	Control+Z
Cut	Control+X
Copy	Control+C
Paste	Control+V
Clear	Del
Group	Control+G
Ungroup	Control+U
Select All	Control+A
Find Again	F3

## Keyboard shortcuts -- Data menu

Menu command	Shortcut
New Variable	Control+Shift+N
Show Variables	Control+Shift+V
Show Functions	Control+Shift+F
Calculations	Control+=

## Keyboard shortcuts -- Attributes menu

Menu command	Shortcut
Effects	Control+E
Lines	Control+L
Fills	Control+D
Modes	Control+M
Color	Control+K
Bring to Front	Control++
Send to Back	Control+-(hyphen)
Show/Hide Toolbar	Control+Shift+T
Align Objects	Control+H

## Keyboard shortcuts -- Text menu

Menu command	Shortcut
Font Size Up	Control+. or Control+>
Font Size Down	Control+, or Control+<
Bold	Shift+Control+B
Italic	Shift+Control+I
Underline	Shift+Control+U
Plain	Shift+Control+P
Left Align	Control+[
Right Align	Control+]
Center Align	Control+\
Justify	Control+



## Keyboard shortcuts -- Try It menu

Menu command	Shortcut
Run	Control+R
Run From Flag	Control+F
Pause/Proceed	Control+P
Show Current Icon	Control+I
Jump to Icons	Control+J
Trace Window	Control+T
Step Into	Control+ (apostrophe)
Step Over	Control+;

## Keyboard shortcuts -- Help menu

Menu command	Shortcut
Help	F1
Help Pointer	Shift+F1

## Keyboard shortcuts -- Other

<b>This key</b>	<b>Does this</b>
Left arrow, right arrow, up arrow, or down arrow	Moves a selected object one pixel at a time to the left, right, up or down, respectively
Shift	Constrains the shape of an object youre drawing to a square, circle, or line, or maintains the aspect ratio of an existing graphic youre resizing
Spacebar	Deselects all the currently selected objects
Tab, Return, or Enter	With an icon selected on the flowline, selects the next icon
Shift-Tab, Shift-Return, or Shift-Enter	With an icon selected on the flowline, selects the previous icon
Tab	With an object selected in the presentation window, selects the next object in the icon (if theres more than one object)
Control	Holding down the Control key while drawing an object lets you draw a second object with the same tool, close to the first one
Control+\	Hides/displays author menus while authoring

