
Dazzler Deluxe 3.1



Linotype-Hell

Reference Section

Acknowledgements

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Menus

This section provides a detailed description of each of the menu options in the Dazzler Development Environment. Each menu item is listed under its heading in the menu bar.

'Deluxe' refers to features available only in Dazzler Deluxe edition.

File

The menu options under this heading deal with the saving, loading and printing of courses.

New

Tool Bar Equivalent : 

Creates a new course in a Course Window. Several courses can be open at one time. A new course is given the name *Course,1* etc., until it is saved for the first time.

Open...

Tool Bar Equivalent : 

Loads a previously saved course. The standard *File Open* dialog box is displayed for choosing which Dazzler course to load. The *Status Bar* at the bottom of the main Dazzler window indicates the progress of the course loading.

Close

Closes the course in the currently active course window. If there are unsaved changes in that course, then a *Save* option will be displayed.

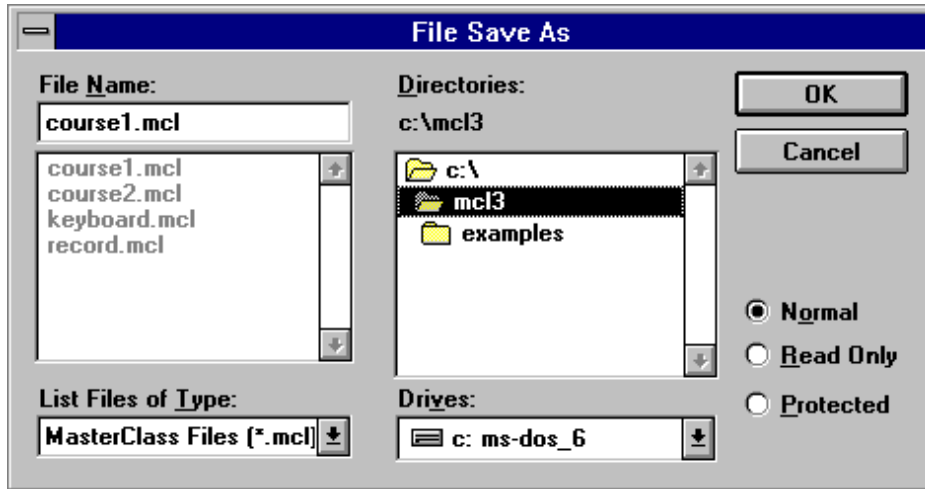
Close All

Closes all the open courses. If there are unsaved changes in any of the courses, then a *Save* option will be displayed.

Save

Tool Bar Equivalent : 

Saves the course in the currently active course window to disk. If this is the first time the course has been saved, then the standard *File Save As* dialog box will be displayed, allowing a drive, directory and file name to be chosen.



Normal

Saves the course file so that it can be opened by any Dazzler Developer System or Run-Time Player (Version 3.1 or greater).

Read Only

Saves the course file so that it can be read by any Dazzler Developer System but any changes made to it cannot be saved. A course saved in this way can be executed by the Run-Time Player (Version 3.1 or greater).

Protected

Saves the course file so that it cannot be read by any Dazzler Developer System. A course saved in this way can be executed by the Run-Time Player.

Note: A course should always be saved in *Normal* format before saving in *Protected* format (using a different name), since once the course file is encrypted it cannot be loaded into the Developer System again.

Save As...

Allows the course in the currently active Course Window to be saved with a different file name.

Save All

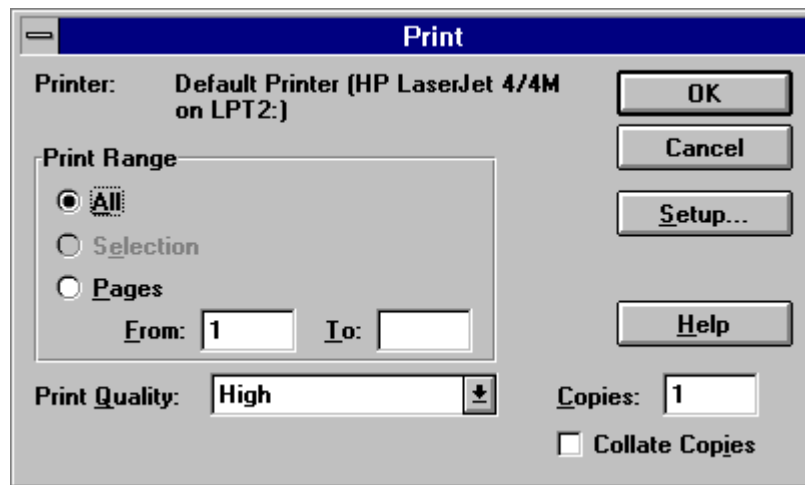
Saves the courses in all the Course Windows, starting with the first course created. If any of the courses do not already have a file name, the usual File Save As dialog box will appear.

Package.... (Optional)

This option can be installed with the Dazzler Distribution Kit. It enables courses to be automatically packaged for distribution - see Appendix A.

Print

Prints the currently active course

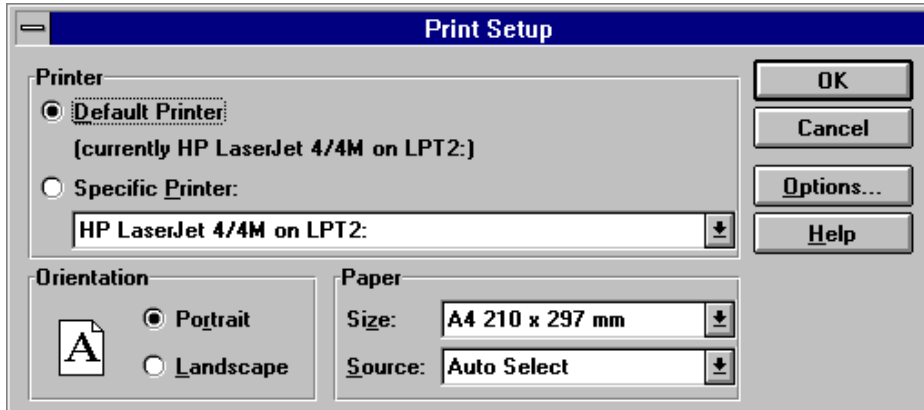


Print Preview

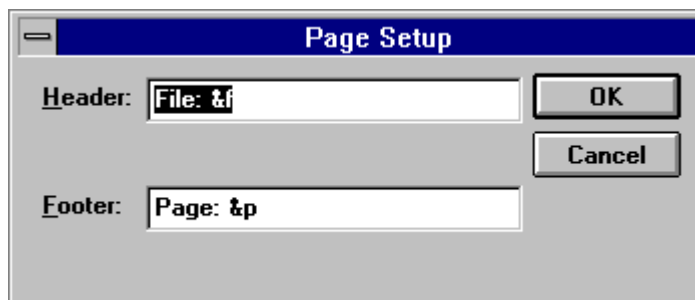
Shows how the course structure will look when it is printed, page by page. Three levels of zoom are available.

Print Setup...

Displays the standard Windows Print Setup dialog box from which the printer to be used can be selected, as well as the paper size, orientation and any other features specific to the chosen printer.



Page Setup



Header

The text which will appear at the top of the page. The default is *File: &f* , where &f represents the name of the file in full.

Footer

The text which will appear at the bottom of the page. The default is *Page: &p* , where &p is the page number, starting at 1.

Exit


Closes down Dazzler. If any changes to courses remain unsaved, a dialog box will appear asking if changes should be saved for each course which has changed.

Note: Beneath the Exit option a list of the 5 most recently used courses will be shown. Selecting one of these will load the appropriate course into a Course Window.

Edit

The options in this menu are for copying and pasting tasks and their components, both within the same course and between courses.

Add

Tool Bar Equivalent : 

Adds a new task to the *end* of the current course.

Insert

Tool Bar Equivalent : 

Inserts a new task in the current course *before* the currently highlighted task.

Cut

Tool Bar Equivalent : 

Removes the currently highlighted task, event, action or response. It can then be pasted elsewhere within any open course (see below).

Copy

Tool Bar Equivalent : 

Copies the currently highlighted task, event, action or response. It can then be pasted elsewhere within any open course (see below).

Paste

Tool Bar Equivalent : 

Inserts a previously cut or copied task, event, action or response (see above) before the currently highlighted one. If a *task* is highlighted and an *action* is pasted onto it, the

action will appear at the end of the task's list of actions. The same rule applies to events and responses.

Delete

Removes completely the currently highlighted task, event, action or response. It cannot then be pasted back into a course.

Course

This menu deals with settings and functions which are specific to the current course (i.e., the one in the currently active Course Window).

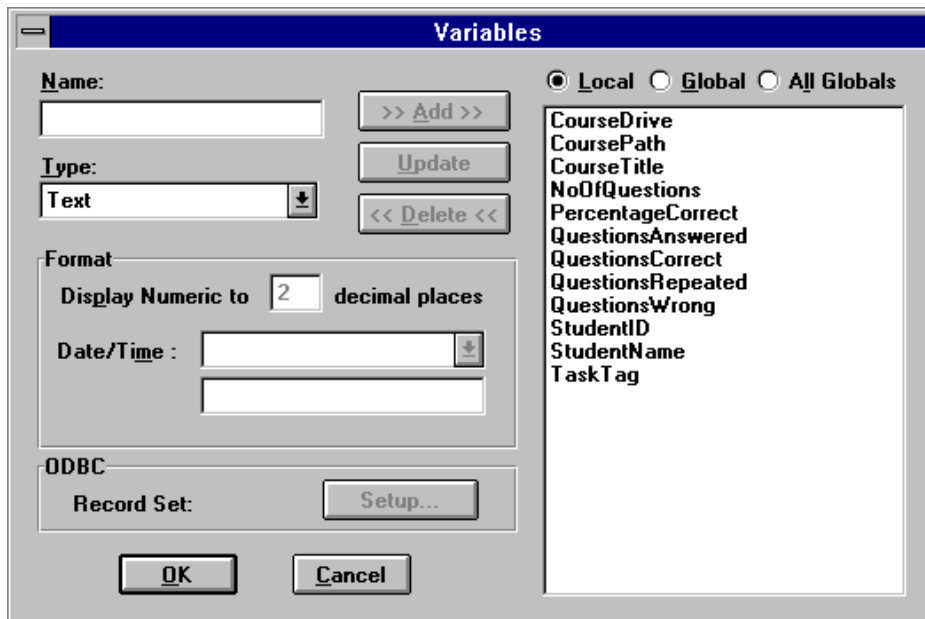
Variables

DELUXE

Tool Bar Equivalent : 

Variables are an advanced feature used to store information needed by the course (to carry out student scoring, for example). Dazzler has several commonly used variables already built in. Some, such as *PercentageCorrect*, are automatically updated by the system as the course is run. Others, such as the ones you create yourself, can be manipulated and used within the course.

The Variables set-up dialog box looks like this:



The image shows a dialog box titled "Variables". It has a blue header bar with the title. Below the header, there are three radio buttons: "Local" (selected), "Global", and "All Globals". To the left of these buttons are three buttons: ">> Add >>", "Update", and "<< Delete <<".

On the left side of the dialog, there are several input fields and controls:

- Name:** An empty text box.
- Type:** A dropdown menu currently showing "Text".
- Format:** A section with "Display Numeric to" followed by a text box containing the number "2" and the text "decimal places". Below this is a "Date/Time" label followed by a dropdown menu.
- ODBC:** A section with "Record Set:" followed by a "Setup..." button.

At the bottom of the dialog are "OK" and "Cancel" buttons.

On the right side of the dialog, there is a list of variables:

- CourseDrive
- CoursePath
- CourseTitle
- NoOfQuestions
- PercentageCorrect
- QuestionsAnswered
- QuestionsCorrect
- QuestionsRepeated
- QuestionsWrong
- StudentID
- StudentName
- TaskTag

Built-in variables

There are two types of built-in variables, *Local* ones, which only store information for the currently active course, and *Global* ones, which store information available to all course modules.

Local

CourseDrive

Contains the drive on which the current course is saved , as text. (e.g., **C:**).

CoursePath

Contains the complete path of the current course, as text.
(e.g., **C:\DAZZLER\DEMO**).

Course Title

Contains the title of the course as specified in the *Icon Text* of the course icon. Change this by double-clicking on the icon text of the course icon in the Course Window.

NoOfQuestions

Dazzler keeps track of which tasks have responses which are logged as right or wrong. These tasks are counted as questions.

PercentageCorrect

Dazzler automatically calculates a student score, based on the number of questions (defined above) correctly answered. If a question is repeated, but answered correctly eventually, it will still be counted as being 100% correct as if the student had got it right first time.

QuestionsAnswered

Dazzler keeps track of the number of questions (as defined above) which were actually answered by the student.

QuestionsCorrect

Stores the number of questions (as defined above) which were answered correctly by the student (as defined by the *Log As* option in the response).

QuestionsRepeated

Stores the number of questions which were asked more than once. It does not store how many times a particular question was asked.

QuestionsWrong

Stores the number of questions (as defined above) which were answered incorrectly by the student (as defined by the *Log As* option in the response).

StudentID

This variable can be used to store the Student's ID in conjunction with an Editor Input response.

StudentName

This variable can be used to store the Student's name in conjunction with an Editor Input response.

TaskTag

This variable can be set to a task number. In any response, the [-2] *Task Tag Variable* can be selected in the *Branch to Task Tag Number* list. When the response is activated the course will branch to the task set in *TaskTag*. Thus the branching can be controlled dynamically through variable values.

All Global

Shows all the variables specified as being global, including the ones built in to Dazzler.

ActualDate

Contains the current date as set on the computer.

ActualTime

Contains the current time as set on the computer.

ClickX

Contains the number of pixels from the left hand edge of the Presentation Window where the mouse button was last pressed down.

ClickY

Contains the number of pixels from the top edge of the Presentation Window where the mouse button was last pressed down.

ColourDepth

Contains the number of colours the computer can use to show pictures, measured in bits per pixel. 4 = 16 colours, 8 = 256 colours, 24 = 16.7 million colours. This variable can be used in conjunction with the Conditional Branch response to test the capabilities of a computer at run-time.

CourseTime

Only required for compatibility with earlier versions of Dazzler.

DraggedObjectName

The Icon Text of the last object dragged by the student using the *Drag Object* response. (e.g., "Picture - TEST.BMP").

DragScaleValue

This is used in conjunction with the *Drag Object* response. It stores the value of the point on the defined scale at which the dragged object was released.

ErrorMessage

Contains the text of error messages returned by Windows (e.g., MCI errors).

ErrorNumber

Contains the numeric value of error messages returned by Windows. It is normally 0; anything greater than 0 indicates an error. This can be used within a course to check for errors. (e.g., a *Demon* event can be set to trigger if `ErrorNumber > 0`).

InstanceHandle

Stores the Dazzler application handle, used for linking Dazzler to other programs (e.g., via the *DLL* action).

MciReturnData

Text returned from an MCI action (e.g., getting the current frame position).

ObjectFromX

Pixel value of the original coordinates of the last dragged object from top left, measured from the left hand side of the Presentation Window to the centre of the object.

ObjectFromY

Pixel value of the original coordinates of the last dragged object from top left, measured from the top side of the Presentation Window to the centre of the object.

ObjectToX

Pixel value of the new coordinates of the last dragged object from top left, measured from the left hand side of the Presentation Window to the centre of the object.

ObjectToY

Pixel value of the new coordinates of the last dragged object from top left, measured from the top side of the Presentation Window to the centre of the object.

PreloadBufferSize

The amount of RAM set aside for the pre-loading of Graphics Images. The default is 1MB, but can be changed by assigning a new value (in MB units) to this variable.

ReleaseX

Contains the number of pixels from the left hand edge of the Presentation Window where the mouse button was last released.

ReleaseY

Contains the number of pixels from the top edge of the Presentation Window where the mouse button was last released.

ScreenWidth

The horizontal resolution of the screen measured in pixels (e.g., 640, 800 etc.). It will vary depending on Windows' setup.

WindowHandle

Stores the handle of the Dazzler Presentation Window, used for linking Dazzler to other programs (e.g., via the *DLL* action).

To add a new variable to the course, such as *JobTitle*, which can then be used in conjunction with an Editor Input response to prompt the student to type in a job title, follow these steps:

1. Type the variable name *JobTitle* in to the *Name* box.
2. From the *Type* 'combo box', select the type of the variable by clicking the down arrow and selecting from the list shown.

Text type is used to store text information, such as *JobTitle*.

Numeric for numbers, which can be used later in calculations. The *Display Numeric to 'n' decimal places* can be used to specify the accuracy to which the number is displayed.

Absolute Date/Time type for storing today's date in various formats. The *Format* section of the dialog provides a way of selecting the way in which the date and time information will be displayed.

Several common formats are given in the drop-down list. The *Custom* options allows you to tailor the format to your own requirements.

The formatting codes are as follows:

Format	Description
%a	Abbreviated weekday name
%A	Full weekday name
%b	Abbreviated month name
%B	Full month name
%c	Date and time representation appropriate for the locale
%d	Day of the month as a decimal number (01-31)
%H	Hour in 24-hour format (00-23)
%I	Hour in 12-hour format (01-12)
%j	Day of the year as a decimal number (001-366)
%m	Month as a decimal number (01-12)
%M	Minute as a decimal number (00-59)
%p	Current locale's AM/PM indicator for a 12-hour clock
%S	Second as a decimal number (00-59)
%U	Week of the year as a decimal number, with Sunday as the first day of the week (00-51)
%w	Weekday as a decimal number (0-6; Sunday is 0)

%W	Week of the year as a decimal number, with Monday as the first day of the week (00-51)
%x	Date representation for current locale
%X	Time representation for current locale
%y	Year without the century as a decimal number (00-99)
%Y	Year with the century as a decimal number
%Z	Time zone name or abbreviation; no characters if time zone is unknown
%%	Percent sign

Example:

To set up a variable *DisplayDate* to display dates in the form “Monday, 10 June 96”, choose *Absolute Date/Time* in the *Type* box and select *Custom* from the *Date/Time* list. Enter the following text in the edit box in the *Format* section:

%A , %d %B %y

Relative Time

Use this variable type when times need to be stored and compared, for example the course start and end times. The *Format* section of the dialog provides a way of selecting the way in which the time information will be displayed. Several common formats are given in the drop-down list. The *Custom* options allow you to tailor the format to your own requirements.

%D	Total days stored in variable
%H	Hours in the current day
%M	Minutes in the current hour
%S	Seconds in the current minute
%%	Percent sign

Example

To store hours and minutes only, choose *Relative Time* in the *Type* box, select *Custom* from the *Date/Time* list. Enter the following text in the edit box in the *Format* section:

%H : %M

ODBC Record Set is used in conjunction with the optional Database Toolkit to store information retrieved from a database. The *ODBC Record Set / Setup* part of the dialog box deals with choosing which tables, records and fields of a chosen database should be used. See Appendix B for details.

Binary

This variable type is used in conjunction with the ODBC Toolkit to store data from Binary Large Objects (BLOBS) such as bitmaps.

3. If the course uses other Dazzler courses as it runs, (see *Actions - Run Another Course*), click on the *Global* button at the top of the dialog box, before adding a new variable, so that the variable can be used by all the courses. Global variables remain active within Dazzler even if the course that created them is closed.

Note the *All Globals* option displays all the built in system variables, such as *ScreenWidth*, which are available at all times.

4. If the variable is numeric, then choose how many decimal places should be used to display the variable. For example, 2 decimal places would show a value as 3.00, 0 places would show it as 3 alone.

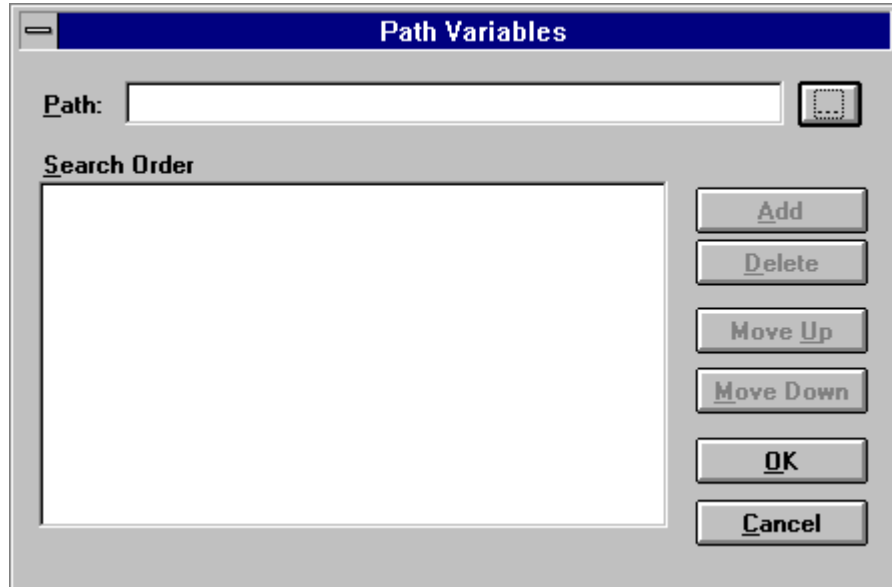
To add this newly created variable to the list of available variables, click on the *>>Add>>* button. To remove a variable from the list on the right, highlight it and click the *<<Delete<<* button. If any changes are made to the properties of a variable, click the *Update* button for the changes to take effect. You will be prompted to save any remaining changes on exit.


See also: *Actions - Variables*
 and all Responses

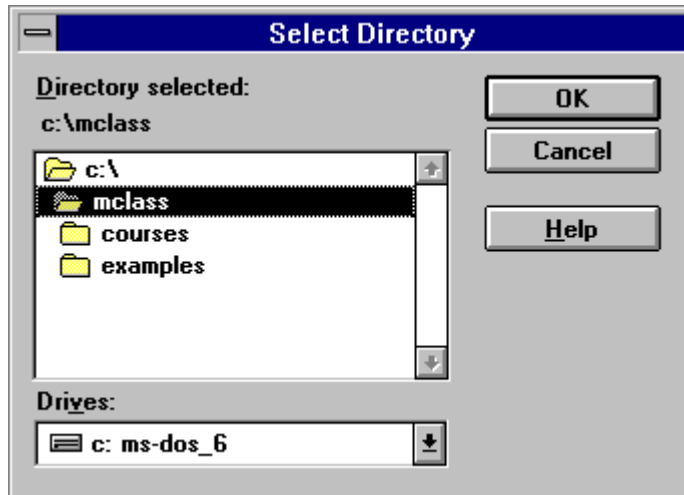
Paths...

DELUXE

This menu item provides a way of stating which directories should be searched when Dazzler is trying to locate files requested in a Dazzler course. If a path is not specified with the file, Dazzler will first look in the same directory as the course (.DZL) file. If it can't find it there, it will then search the main Windows directory, the Windows SYSTEM sub directory, the Dazzler directory, any directories specified in the PATH statement in the AUTOEXEC.BAT file and any mapped network drives. It will then continue to look in the directories listed in the *Search Order* box.



To add a directory in which Dazzler should look when trying to locate information, press the browse button  and use the Select Directory dialog to find the required directory:



Click OK when the right directory has been found. Now press the *Add* button in the *Path Variables* dialog to add the directory to the search sequence. When more than one directory has been added, the order of searching can be altered using the *Move Up* / *Move Down* buttons. A directory can be removed from the search list by highlighting it and pressing *Delete*.

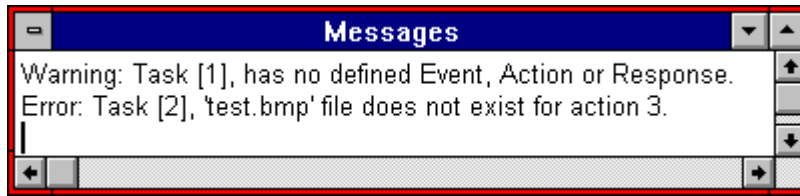
Paths only need to be setup in the first course. The settings will remain active until Dazzler itself is closed, even if the course that set the paths is closed.

Validate

DELUXE

Tool Bar Equivalent :

This feature checks a course for inconsistencies which could cause problems when the course is run. There are two types of message given by the Validate option. One is just a warning that you may have overlooked something. For instance, in the example below, there is a warning because a task has been added to a course, but no actions or responses have been added to it. The task will thus do nothing in the course, but neither will it cause any harm, so it is flagged as a warning.



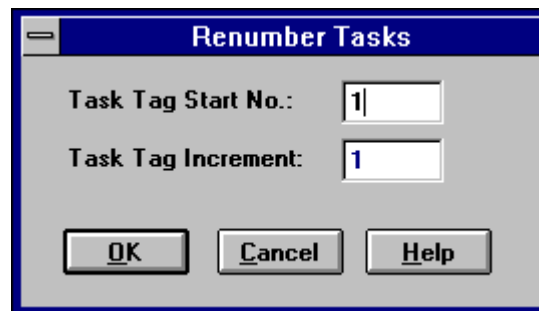
The second type, errors, are obviously more serious. In the example, a picture file specified in a Graphics Image action couldn't be found. This could occur for a number of reasons:

1. the file has been deleted or moved,
2. the directory path of the file has been removed from the course through the use of the *Strip path names from objects* feature (see below) but the file hasn't been moved into the current directory.

This facility provides a useful, though not exhaustive, check on a course before it is distributed or published for student use.

Renumber tasks...

After much editing of a course, the task numbers can become untidy. The *Renumber tasks* option goes through the whole course, renumbering the tasks from top to bottom and re-assigning the branches in responses accordingly. The starting number and step increment can be specified in the dialog box for this option.



Strip Drive/Path Names

Strip Drive Letters

It is sometimes useful when building a course to include picture, sound and video files stored on different parts of a disk or network. When the course is ready for use or distribution, these files ideally need to reside in one directory on the hard disk or on a floppy disk. However, even after the files are gathered together in one place, the course might still contain explicit references to where the files originated. This will cause problems when the course is run on a different machine. The *Strip paths* options remove just the drive or both the drive and directory references, but both leave the actual file name itself intact.

Strip Drive/Path Names

All references to drives and directories are removed. Dazzler will assume that all objects reside in the same directory as the course itself.

Strip Drive Letters

Only references to drive letters will be removed. The directory paths will be left. In this way, a course which uses separate directories for pictures, sound and digital video, for example, can be transferred to another drive with this structure intact.

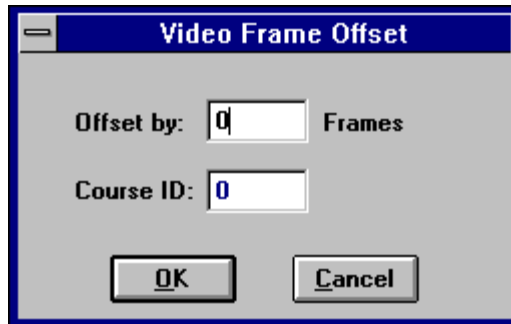
See also : *Settings/Preferences.*

Course/Validate

Frame Offset...

DELUXE

If using a controllable video tape or video disk player, this option can be used to offset all references to frame locations in the course for synchronisation purposes. A course ID can also be stored with the course for comparing with the ID stored on the tape or disk.



See also:

Actions - Tape Control/Get Tape Data

Run

This menu allows the course to be run in convenient ways from within the development environment.

From Start

Tool Bar Equivalent : 

Runs the course from the first task onwards. This is how the student would experience the course from the run-time system.

From Current

Runs the course from the currently highlighted task (click once on a task to make it the current task).

Current

Tool Bar Equivalent : 

This executes the currently highlighted task and only that task. In this way objects can be loaded into the Presentation Window ready for use in the *Object Browse* functions of various actions and responses, such as the *Clear* and *Move Object* Actions and the *Drag Object* Response.

On Setting Focus

DELUXE

By viewing the Presentation Window in one part of the screen and the Course Window in another, this option can be used to step through the course and see how it appears on the screen at any given point. Click on a task to highlight it and the corresponding actions and responses will be shown in the Presentation Window.

See also: *View* menu.

View

This menu deals with making parts of the Dazzler development environment visible.

Show Presentation Window (F2 Key)

Reveals the Presentation Window (showing how the course will look to the student) by placing it on top of whatever windows are already on the screen.

Hide Presentation Window (F3 Key)

Removes the Presentation Window from the screen.

Tape/Video Controls (F4 Key)

DELUXE

If a controllable VCR or videodisk player is being used, this option shows the control panel, giving direct control of the device.



See also: *Tape/Video Control Panel* description

Tool Bar

When a tick is shown beside this option, the Tool Bar will be shown beneath the Dazzler menu bar. Click on the menu option to toggle between on and off.

Status Bar

When a tick is shown beside this option, the Status Bar will be shown at the bottom of the main Dazzler window. This provides a brief description of each menu item as the cursor moves through the menus and also the progress of the saving and loading of courses. Click on the Status Bar menu option to turn this feature on and off.

Messages

If the Messages box is iconized or is hidden behind other windows, it will be shown, restored to normal size, on top.

Icons

If the Icon Window (containing the list of possible Events, Actions and Responses) is iconized or is hidden behind other windows, it will be shown, restored to normal size, on top.

Scale to 50% / 100% / 200%

The contents of the currently active Course Window can be reduced (50%) or enlarged (200%) from the default view (100%).

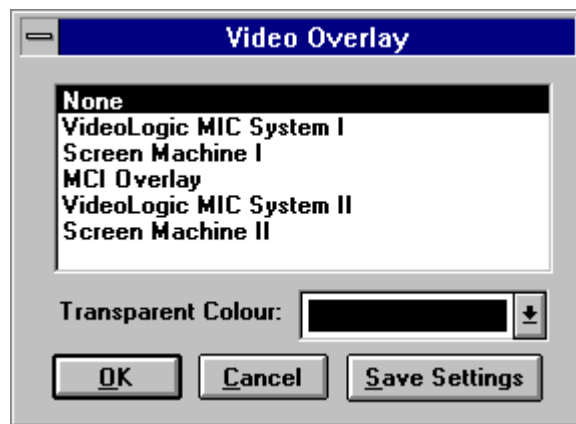
Settings

This menu deals with the general setup of Dazzler and the hardware it controls. All these settings are stored with the Dazzler Development Environment and *not* the courses created with it; so the courses are independent of the particular hardware used to create the course.

Video Overlay...

DELUXE

Dazzler's *Video* action can control the display of live video signals on the screen if a suitable video overlay card is installed in the computer. Choose which device you are using from the dialog box:



If the particular card you are using is not listed, choose the MCI Overlay option and check that you have an MCI driver for your card using the Drivers option in Control Panel (found in the Main group in Program Manager). Contact your hardware supplier if you do not have the required driver software.

The *Transparent Colour* option allows you to choose which colour will be transparent to the video signal. The default is black, meaning that any picture or drawing with areas of black, shown in conjunction with a video action, will show the video through the black

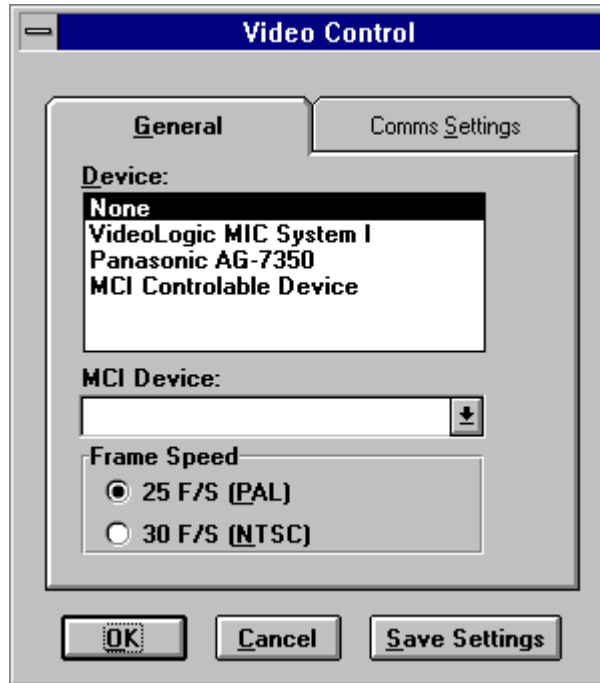
parts of the picture, but nowhere else. Any colour other than the transparent colour appears on top of the video.

Use the *Save Settings* button to save any changes you make in this dialog box.

Video Control...

DELUXE

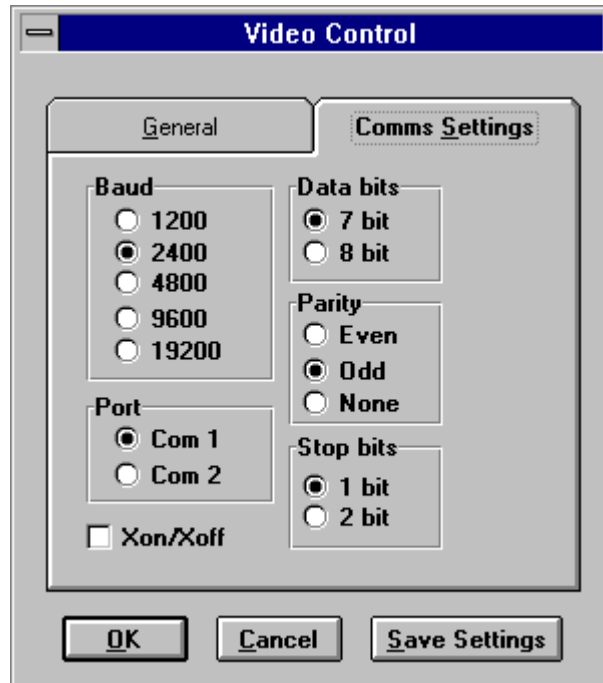
Use this option if you are using a controllable VCR or video disk player. *Tape Control* actions can then be used within courses to incorporate video material in conjunction with *Video* actions which show the picture on the screen.



If you are using VideoLogic's DOS based MIC System I, you can control the wide range of video disk players supported by MIC.

Dazzler has direct support built-in for the Panasonic 7350 VCR which, when fitted with the AGIA232TC board, can be controlled via the computer's serial port with single frame accuracy using its time-coding facilities. The serial port settings can be made to match

those of the player by choosing the options shown when the *Comms Settings* tab is clicked:



If the VCR or video disk player has an MCI driver (not to be confused with VideoLogic's MIC software!), it can be controlled from Dazzler by selecting the *MCI Controllable Device* option in this dialog box. The device itself can be selected from the *MCI Device* drop-down combo-box. The MCI drivers can be installed and configured through the Drivers section of Control Panel in the Main group of Program Manager.

The number of frames per second used by the device can be selected via the *Frame Speed* radio buttons.

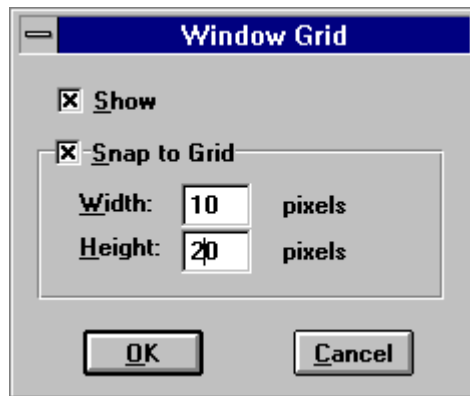
Use the *Save Settings* button when you have finished making changes.

System Font...

This allows a font to be chosen which the Dazzler development environment will use to label the icons. It has no effect on the course itself, but can help readability, both on the screen and on paper, when the course is printed out. The standard Windows font dialog box is used, although the font colour is set to black.

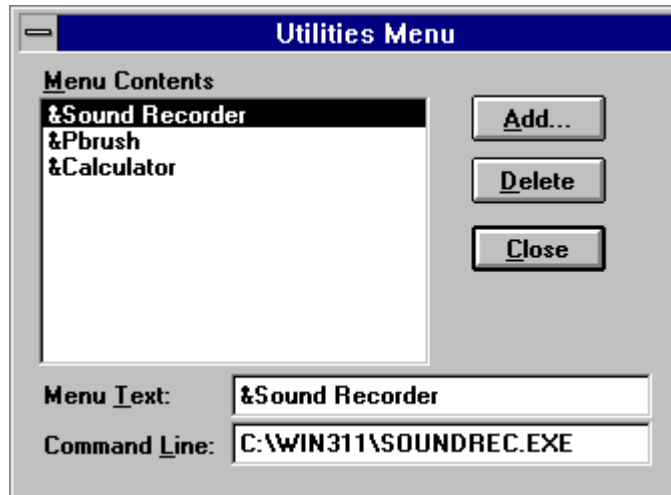
Snap to Grid...

When positioning text, buttons, etc., in the Presentation Window, it can be useful to use the grid option to ease the task of aligning objects on the screen. Check the *Show* check box to show the grid in the Presentation Window when modifying the position of objects. Check the *Snap to Grid* check box in the dialog box to force the objects to align themselves with the grid when they are moved. The coarseness of the grid can be changed with the *Width* and *Height* boxes.



Utilities Menu...

The Utilities menu is used to launch other applications which may be of use when creating a Dazzler course (for instance a paint program). The items which appear on the Utilities menu can be chosen using the *Utilities Menu* option dialog box:



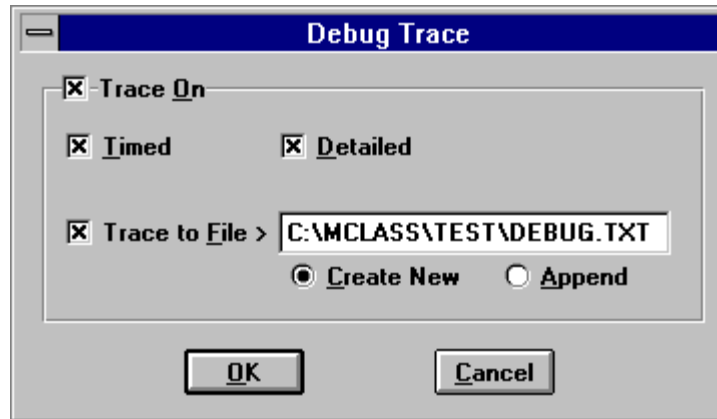
Click the *Add* button to browse for an application to add to the menu. The standard Windows file browse dialog box is used. When the .exe file has been found (for example, PBRUSH.EXE in the Windows directory for Paintbrush), the path and file name will automatically be displayed in the *Command Line* box. The text which appears in the Utilities menu can be changed using the *Menu Text* box. The '&' character in front of any letter in the menu text will indicate a keyboard shortcut for that menu item.

Any item can be removed from the menu by highlighting it in the *Menu Contents* list and clicking the *Delete* button.

Debug Trace...

DELUXE

The Debug Trace menu option enables you to monitor how a course runs. The sequence, tasks and, optionally, their timing, can be viewed, either in the *Messages Window*, or, if the *Trace to File* option is set, they can be written to a specified file for later analysis. *Create New* will overwrite any previous trace information stored in the file; *Append* will add the new trace to the end of the one stored.



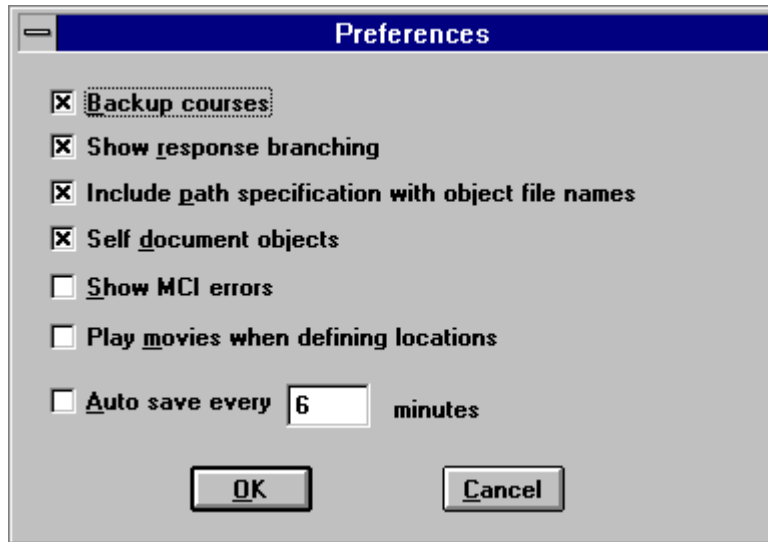
If neither the *Timed* nor the *Detailed* options are set, then the trace will consist of a list of the tasks used when the course ran, in the sequence in which they were called.

The *Timed* option, when checked, will add information, in seconds, about when a task was called, beginning from time zero when the course starts.

The *Detailed* option is not implemented in version 3.1.

Preferences...

This option offers choices about how the Dazzler Development Environment will behave. This dialog box appears:



Backup courses

Whenever a course is saved, and this check box is active, the previous version is stored with the file extension *.bak*. Only one backup file for a course is used. In this way, if you make a mistake when creating a course and then accidentally save it, the backup file can be used to step backwards to the last saved version of the course.

Show response branching

When this option is checked, the branching from the current task (the one highlighted by clicking once on it) will be shown as lines of different colours drawn from each response to the task it links to.

Include path specification with object file names

When you choose a picture, drawing, sound or video file in an action, if this option is *not* checked, only the file name, and not its full path, will be stored. Thus, the course and its associated file can be moved from one directory to another, or to a floppy disk, without having to go through each action and change its path reference. With no reference to path names, Dazzler will assume that all the files are to be found in the same directory in which the course file (*.DZL*) itself is stored.

See also: Course/Strip path names from objects

Self document objects

Check this option to allow Dazzler to create labelling for each Event, Action and Response automatically as the course is created. For instance, if a Graphics Image Action is configured to show a picture called TEST.BMP, the action would be labelled as:

Picture - TEST.BMP

Show MCI Errors

DELUXE

Select this option if the user should see error messages if some multimedia action fails and a programming call to an MCI device, such as a sound card driver.

Play movies when defining locations

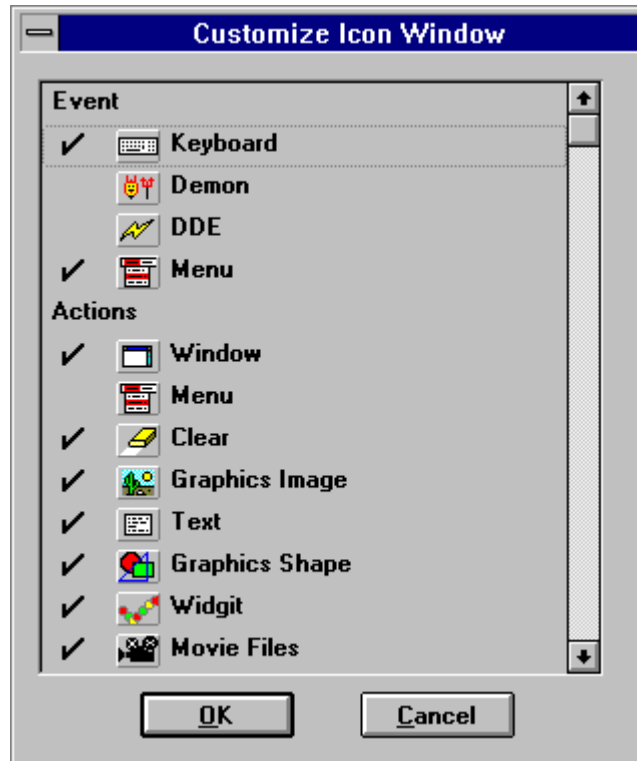
If this option is checked, digital video files will play in the Presentation Window as the location for the movie is defined. If the option is not checked, the first frame of the movie will be shown as the area is defined and modified.

Auto save every xx minutes

This allows you to specify how often the courses being worked-on should be saved to disk. The courses are saved to their original filenames, not to backup files (see *Backup courses*, above). If a course has no filename (i.e., it has not yet been saved), you will be prompted for a filename for the course as if you had chosen the *File/Save* menu option. A dialog box will be displayed first of all, asking for confirmation.

Customize Icon Window...

If you use some events, actions and responses infrequently, you can remove them from the Icon Window to avoid clutter. They can then be added back later by the same process.



A tick next to an icon indicates that it will appear in the Icon Window. Click on the tick to remove it, and hence remove the icon from the Icon Window.

Utilities

This menu consists of one standard item plus whatever other items have been added from the *Settings/Utilities Menu* option.

Capture

This menu option provides a way of capturing a screen, or part of a screen and saving it as a bitmap for use directly in a Dazzler course, creating a Graphics Action in the process if required.



The options on the left hand side of the Capture dialog box refer to different parts of the Microsoft Windows interface.

Window

An entire window, including Title Bar and Menu Bar, selected by clicking anywhere in the required Window.

Client Area

The inside of a window, excluding Title Bar and Menu Bar, selected by clicking anywhere inside the required Window.

Rectangle

An area of the screen defined by clicking and dragging the mouse.

Active Window

The window currently on top of all others , (e.g., a dialog box).

Desktop

The entire Windows environment, including background and active applications.

The other options are as follows:

Hide Dazzler

When the *OK* button is pressed, Dazzler itself will be hidden, until the required screen snapshot has been taken by clicking the mouse on the required screen. The standard *Save As* dialog box will appear, to save the screen picture, at which point Dazzler will re-appear.

Create Graphics Action

If this option has been checked, then a Graphics Action will be added to the currently highlighted task in the current course, configured to show the screen picture file just created.

Window

New Window

Creates a copy of the currently active course window.

Tile Horizontally / Tile Vertically

Arranges all the course and icon windows on the screen so that each can be seen - the more windows present, the less of the contents of each window will be displayed.

Cascade

This will stack all the course and icon windows from top left towards bottom right.

Arrange Icons

If any windows have been minimized, and hence are shown as icons in the main Dazzler window, this option will tidy them up, arranging them from bottom left of the window.

The other items listed beneath these menu items are the currently open Course Windows in Dazzler. Click on the name of the course to bring it to the top.


Presentation Window

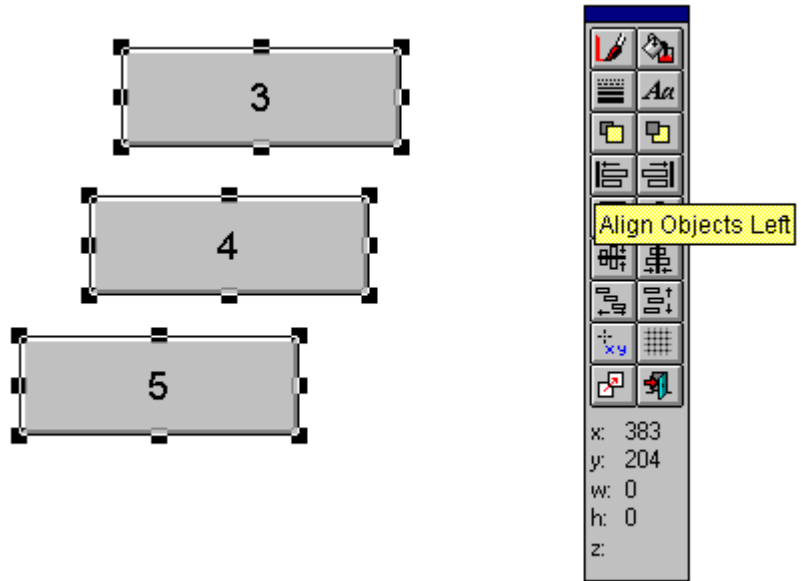
Moving and grouping objects



The Presentation Window shows the objects, such as pictures and push buttons, as they will appear to the student when the course is run. Whenever the *Define* or *Modify Location* button is pressed in the set-up dialog box of an action or response, the Presentation Window will appear. The object being modified will appear highlighted like this:



Click and drag the corner box 'handles' to change the size and shape of the button. The button can be moved around the picture by clicking inside the outline box and dragging it around the Presentation Window.

Objects can be copied from within the Presentation Window by clicking the Copy Object button  on the floating tool bar. The copy of the object will be lying directly on top of the original. Click and drag it to give it its own position. Double click on any object in the Presentation Window to show its set-up dialog box. Objects such as push-buttons can also be aligned automatically in the Presentation Window. Click once on each object in turn while holding down the *shift* key on the keyboard. This will highlight the objects as a group. They could also be selected by clicking and dragging the mouse to define a rectangle around all the objects, provided they are not lying on top of some other object, such as a background picture.



Click on the Align Objects Left button  in the floating tool bar when the objects have been selected. The left hand edges of the objects will now be lined up. The objects can also be spaced automatically as well. Press the Space Evenly Vertically button . The spaces between the objects will now be equal. The group can be moved about as a single object while they are all grouped together. Clicking and dragging any of the objects will move them all.

Floating Tool Bar

The *floating tool bar* provides useful functions associated with the objects present in the presentation windows. For example, any object can be duplicated by highlighting it and pressing the *Copy Object* button. Multiple objects can be selected for aligning, etc. Either hold down the Shift key and click once for each object to be included in the group, or click and drag the mouse to form a rectangle around the objects to be grouped. Releasing the mouse will group them together.

Left to right, top to bottom, the floating tool bar functions are as follows:

1. Set Line Colour
3. Set Line Width
5. Move Objects Forward
7. Align Objects Left
9. Align Objects Top
11. Centre Horizontally
13. Space Evenly Horizontally
15. Enter Coordinates
17. Copy Object



2. Set Background Colour
4. Set Font
6. Move Objects Back
8. Align Objects Right
10. Align Objects Bottom
12. Centre Vertically
14. Space Evenly Vertically
17. Set Grid Size
18. Close Presentation Window

Objects, such as push buttons, can be grouped together by pressing the shift key on the keyboard and clicking once on each object which is to be part of the group. All the objects can then be moved around as a group, or aligned using the tools in the toolbar.

Explanation of floating tool bar functions

1. Set Line Colour

The colour of the outline of a Graphics Shape can be set directly using this button.

2. Set Background Colour

Sets the fill colour of a Graphics Shape object, if the fill style has been chosen, or the background colour of a push button.

3. Set Line Width

Sets the width of the outline of a graphics shape.

4. Set Font

Change the font of a selected text action, push button, check box, radio button and edit box.

5. Move Objects Forward

Moves the currently selected object up one layer (0 - top-most layer, 10 - bottom) so that an object attached to, say, layer 4, will appear on top of one attached to layer 5.

6. Move Objects Back

Moves the currently selected object down one layer.

7. Align Objects Left

Aligns objects in the group so that their left hand edges are in a vertical line.

8. Align Objects Right

Aligns objects in the group so that their right hand edges are in a vertical line.

9. Align Objects Top

Aligns objects in the group so that their top edges are in a horizontal line.

10. Align Objects Bottom

Aligns objects in the group so that their bottom edges are in a horizontal line.

11. Centre Horizontally

Aligns objects in the group so that their centres are in a horizontal line.

12. Centre Vertically

Aligns objects in the group so that their centres are in a vertical line.

13. Space Evenly Horizontally

Aligns objects in the group so that their centres are an equal distance apart horizontally.

14. Space Evenly Vertically

Aligns objects in the group so that their centres are an equal distance apart vertically.

15. Enter Coordinates

If you don't want to risk visual positioning of objects, use this feature to enter pixel position with numeric accuracy.

16. Set Grid Size

Set separately the horizontal *and* vertical settings of the snap-to-grid function.

17. Copy Object

Select one or more objects, such as push buttons, and then press this button in the floating tool bar. A copy is made in the same position with the same attributes. This new object (which will appear in the task structure) can then be moved, and its attributes modified simply by 'double clicking'.

18. Close Presentation Window.

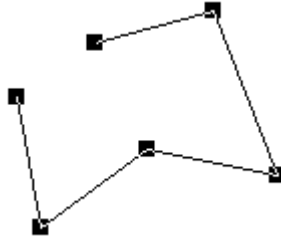
Returns the view to the Course Window, showing the structural overview of what is happening in the course. Equivalent to pressing the Escape key.

Creating Polygon Shapes

The Graphics Shape action has an option to create a multi-sided shape in the Presentation Window. Similarly the Move Object action provides a way of moving objects along irregular polygonal paths. Hot Spot responses can also be defined as multi-sided shapes rather than simple rectangles. All these objects share a common way of defining and manipulating polygons.

To define a polygon:

Click the mouse once at each point which is to become a corner of the polygon and release the mouse button. *Holding down the mouse button while moving the mouse will generate a large number of unnecessary points*. Move the mouse to the next corner and click once and release. Continue this process until all the points have been defined. Double-click the mouse to let Dazzler know that you have finished. Each corner of the polygon should appear with a square 'handle':



Each of these corners can be moved by clicking the left mouse button on a handle, holding down the mouse button and dragging the mouse and then releasing the mouse button when the new position of the corner has been reached.

Adding points

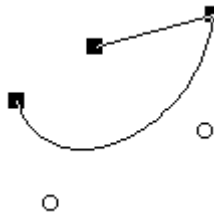
New points can be added by holding down the Control (Ctrl) key on the keyboard and double clicking on a side of the polygon between two corners. This new point can then be dragged into position.

Deleting Points

Points can be deleted by holding down the Control (Ctrl) key on the keyboard and double clicking on the point to be removed.

Bezier Curves

Curves can be added to polygon shapes. Double-click the mouse on two adjacent corners of the polygon. The square handles will turn to circles which can be dragged to define the shape of the curve.




Double-click on these circles to return to a straight line polygon shape.

Objects

This section describes in detail the options available for each of the objects in the Icon Window used to build a course.

'Deluxe' refers to features available only in Dazzler Deluxe edition.

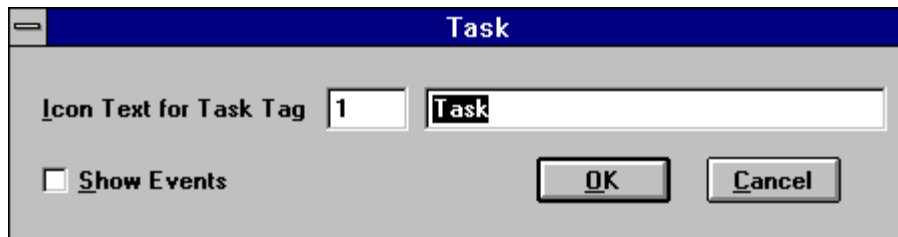
Tasks

A *Course* (represented by the  icon in a Course Window) consists of a series of *Tasks* - things which will happen during the course. Each Task in turn has three components - *Events*, *Actions* and *Responses*, described in the following sections.

Objects are added to a course by clicking and dragging them from the Icon Window to the Course Window.

Click once on a *Task* icon in a course to hide or reveal its structure - it acts like a push-button.

Double-click on the name next to a *Task* icon in a course to bring up the following dialog box:



The image shows a dialog box titled "Task". It has a blue title bar with a minus sign on the left. The main area is light gray. There are two text input fields: the first is labeled "Icon Text for Task Tag" and contains the number "1"; the second is an empty text box containing the word "Task". Below these fields is a checkbox labeled "Show Events" which is currently unchecked. At the bottom right are two buttons: "OK" and "Cancel".

Type in a name for the task in the edit box to the right of *Icon Text for Task Tag*. This is used to label the task in the course. It is not seen by the student, but can help the trainer enormously in making the course structure easier to understand.

The *Show Events* check box is used to hide or reveal the *Events* associated with a task (see below). The default state is not to show events, since they are used infrequently in a course.

Events

DELUXE

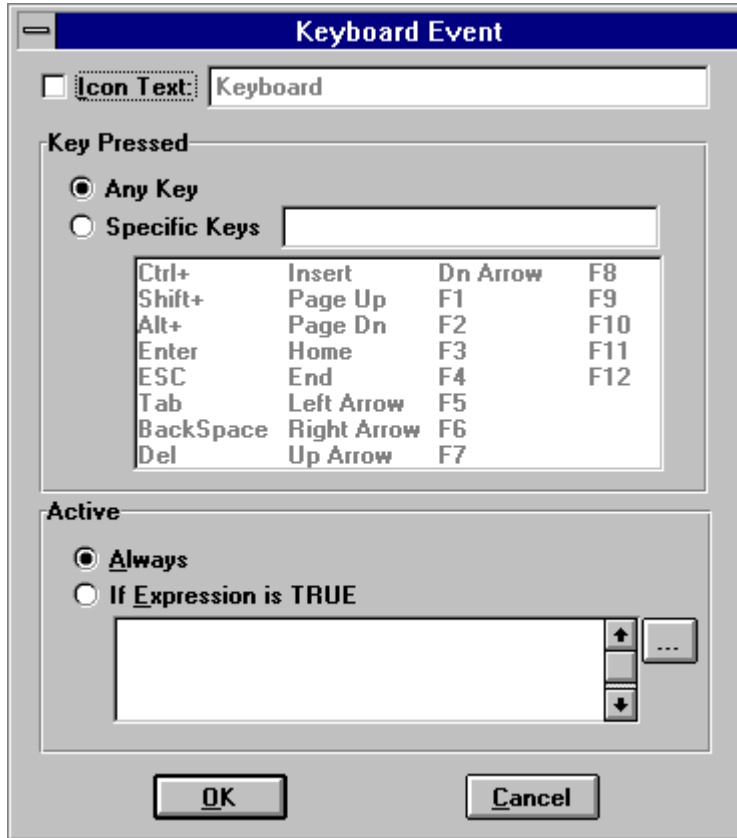
Events are used when it is necessary for part of the course to be activated by some occurrence - a message from another windows application or a variable defined in the course reaching a certain value, or a menu option being selected by a student. Events deliberately interrupt the flow of the course.

Since events are used infrequently, they do not automatically appear in the structure of the task. However, dragging and dropping an event icon onto the task will add it to the structure. Alternatively, choose the *Show Events* in the Task set-up box (see *Tasks* above).

Keyboard

DELUXE

A Keyboard Event will trigger a task to which it is attached when any key, or a specific key, is pressed by the user.



Icon Text: Keyboard

Key Pressed

Any Key

Specific Keys

Ctrl+	Insert	Dn Arrow	F8
Shift+	Page Up	F1	F9
Alt+	Page Dn	F2	F10
Enter	Home	F3	F11
ESC	End	F4	F12
Tab	Left Arrow	F5	
BackSpace	Right Arrow	F6	
Del	Up Arrow	F7	

Active

Always

If Expression is TRUE


OK Cancel

Active

The Keyboard Event is active by default (i.e., if the specified event occurs the task to which this event is attached will be carried out). If it should only be active under certain

conditions, then enter an expression in the edit box at the bottom of the dialog box. An example might be:

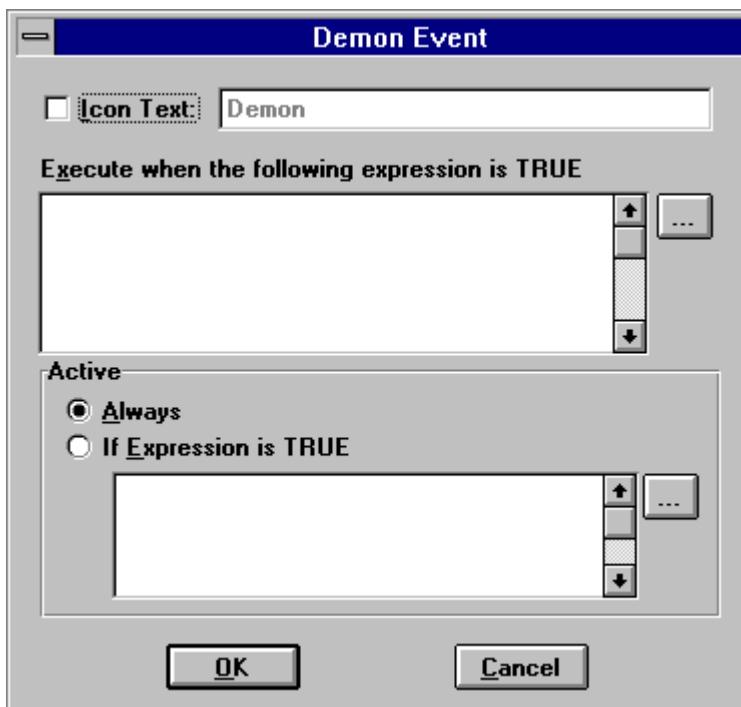
ColourDepth > 16

The Variables browse button  can be used to insert both variables names, functions and operators.

Demon

DELUXE

A task with an active demon event will be activated when the variable expression in the demon becomes true. It interrupts the normal flow of a course, allowing the course to react to scores rising above a certain level, for example.




Dialog Box Options:

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Execute when the following expression is TRUE

Enter the expression to test for in this edit box. Variable names can be typed in directly or inserted from the variables browse button . Click on the down arrow to reveal the list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu (see above).

The following logical operators can be used in expressions:

and	and
or	or
equal to	=
not equal to	<>
greater than	>
greater than or equal to	>=
less than	<
less than or equal to	<=

Note that there is an implicit "if" in all Conditional Branch responses, so it is not necessary to type it in the expression.


An example expression would look like this:

StudentScore > 50 and QuestionsRepeated <= 10

Active

This Event is active by default (i.e., if the specified event occurs the task to which this event is attached will be carried out). If it should only be active under certain conditions, then enter an expression in the *If Expression is TRUE* edit box at the bottom of the dialog box. An example might be:

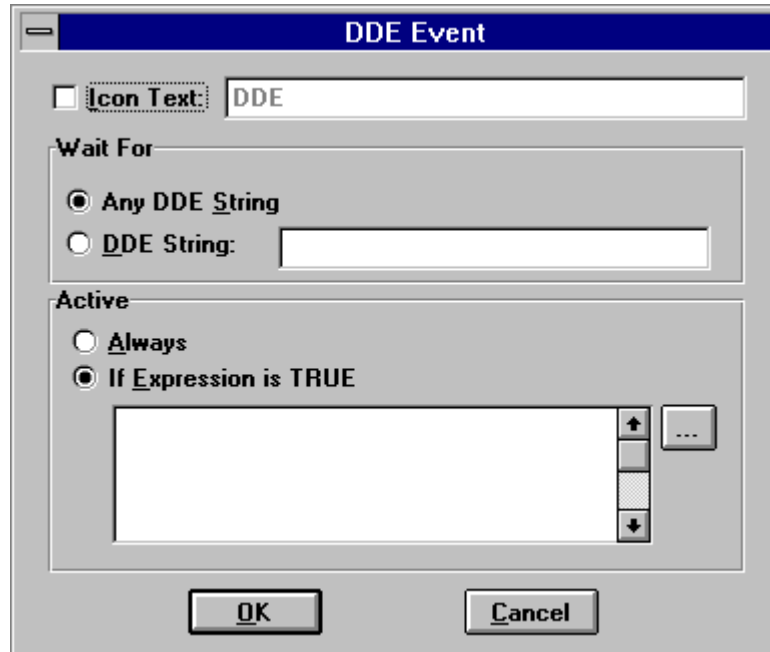
ColourDepth > 16

The variables browse button  can be used to insert variable names, functions and operators.

(See also *Responses - Conditional Branch*)

 **DDE*****DELUXE***

DDE events, like Demons, are an advanced feature. DDE events trigger their associated tasks when a particular message is received from another Windows application. In this way, training courses can be integrated into spreadsheets and word processors, for example.

**Dialog Box Options:*****Icon Text***

The text which will be used to label the icon in the course. It will not be seen by the student.

Wait For***Any DDE String***

Choose this option to make Dazzler react to a general DDE **EVENT** data message from another application (see below). If this task is active, the course will not continue until a DDE message is received.


DDE String

Choose this option to make Dazzler react to a particular DDE **EVENT** data message from another application (see below).

Active

This Event is *Always* active by default (i.e., if the specified event occurs the task to which this event is attached will be carried out). If it should only be active under certain conditions, then enter an expression in the *If Expression is TRUE* edit box at the bottom of the dialog box. An example might be:

ColourDepth > 16

The variables browse button  can be used to insert variable names, functions and operators.

Dazzler DDE Specification

When sending DDE messages to Dazzler from another application (either for use by DDE Events, or generally to control the loading and running of Dazzler courses), the following information will be needed:

The Service Name is "**Dazzler**"

Topic Name is "**System**"

The following Data Items are recognised:

"[OPEN(<filename>)]"	Opens a course named <filename>
"[START(<filename>)]"	Start the course referenced by <filename>
"[CLOSE(<filename>)]"	Closes the course named <filename>
"[QUIT]"	Closes Dazzler
"[EVENT]"	Executes an event if waiting for any DDE


string

"[EVENT(<demon text>)]" Executes the event referenced by the
<demon text>

Active

This Event is active by default (i.e., if the specified event occurs the task to which this event is attached will be carried out). If it should only be active under certain conditions, then enter an expression in the *If Expression is TRUE* edit box at the bottom of the dialog box. An example might be:

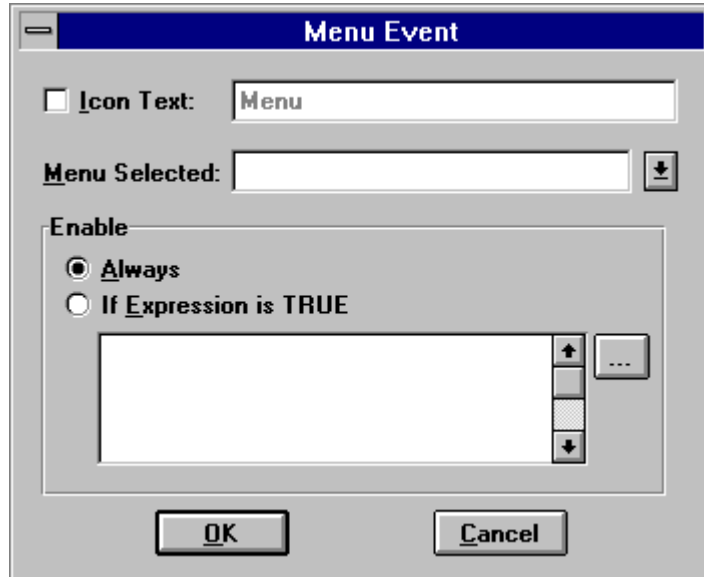
ColourDepth > 16

The variables browse button  can be used to insert variable names, functions and operators.

Menu

DELUXE

A Menu Event will trigger a task to which it attached when a specific menu item is selected by the user.



Menu Event

Icon Text: Menu

Menu Selected: [] [v]

Enable

Always

If Expression is TRUE

[] [↑] [↓] [...]

OK **Cancel**

(See also *Menu Action* and *Menu Response*).

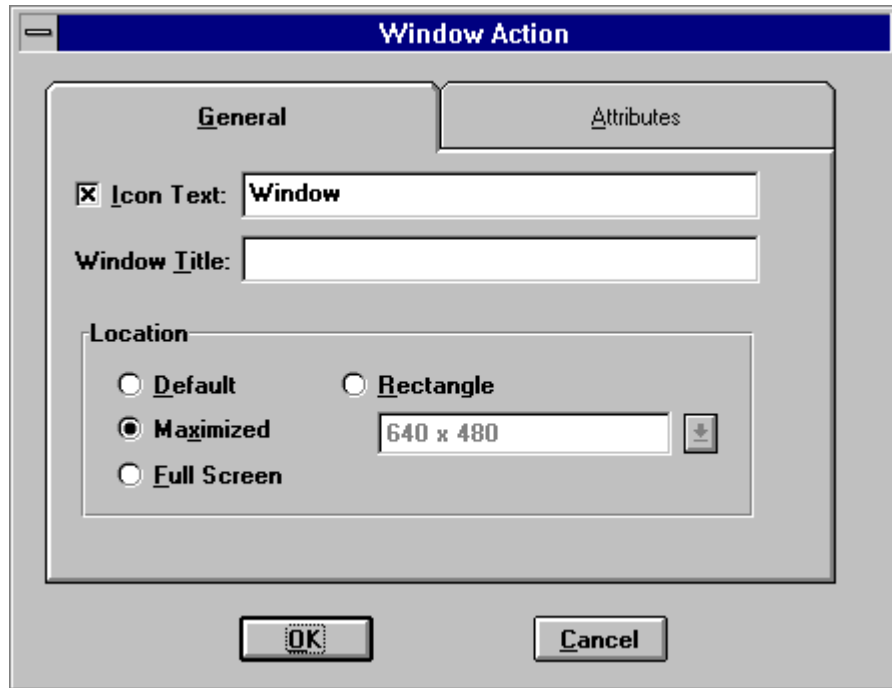
Actions

Actions are the most visible part of Dazzler. They show things in the Presentation Window, from simple text through to digital video. Despite the range of actions available, they are all set-up in the same way - drag an action from the icon window and drop it onto the appropriate task. Then double click on the action icon in the course and a dialog box appears showing the unique characteristics of that action - the position of the picture, its file name, etc. You can have several actions in one task. They will be performed in the order in which they are shown in the Course Window, top to bottom. They will all be carried out before any responses attached to the task are performed.

'Deluxe' refers to features available only in Dazzler Deluxe edition.

Window

Use this action to define the size of the window the presentation will use.



Dialog Box Options

General

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Window Title

The text entered here will appear in the title bar of the Presentation Window, if one has been defined (see *Attributes*, below).

The value of a variable may also be used (for example *{StudentName}*). See the *Course/Variables* menu item and the *Variables* action.

Location

These options determine how the Presentation Window will appear on the screen:

Default

The Presentation Window size remains as it is. In this way the other attributes of the window, such as its colour, can be changed without affecting its size.

Maximized

The window will fill the screen with the title bar at the top.

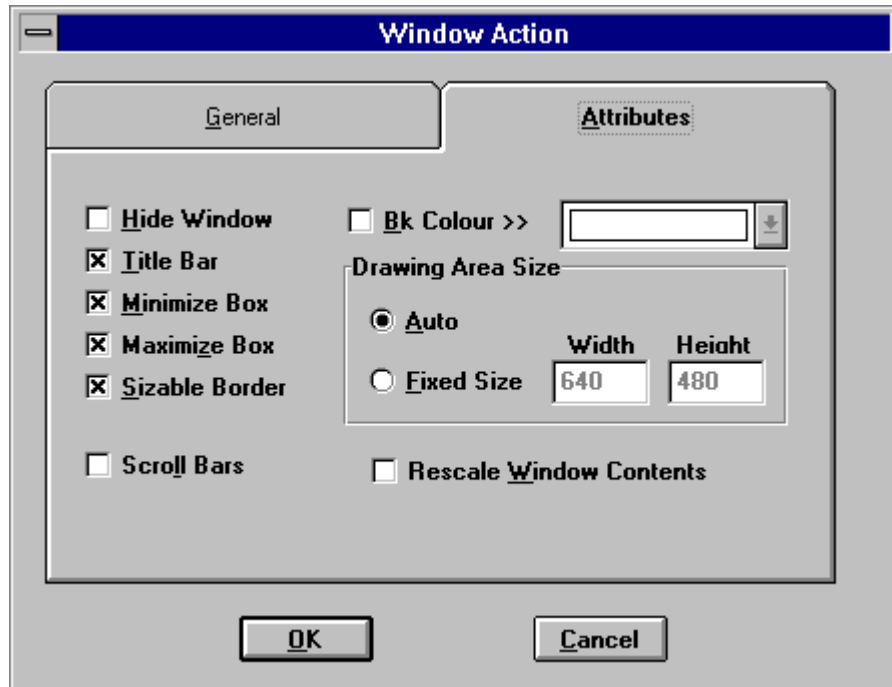
Full Screen

The course will take over the entire screen with title bar or border visible. Thus, all the student will see on the screen is determined by the course content.

Rectangle

This option displays a drop-down combo-box list of standard screen sizes. Choose one of these to fix the initial size of the Presentation Window.

Attributes



These check boxes specify the features of the Presentation Window

Hide Window

The Presentation Window is hidden if this is checked. This feature can be used to hide the course for a period of time while another program is running.

Title Bar

When this is checked the Presentation Window will have a system menu and a title bar containing the text specified in the Window Title box.

Minimize Box

When this is checked, the Presentation Window will have a Minimize Box in the top right hand corner, allowing the student to minimize, or iconize, the Presentation Window.

Maximize Box

When this is checked the Presentation Window will have a Maximize Box in the top right hand corner, allowing the student to maximize the Presentation Window.

Sizeable Border

When this is checked, the Presentation Window will have a border which the student can use to resize the window.

Scroll Bars

When this is checked, both vertical and horizontal scroll bars are added to the Presentation Window. In this way, images larger than the defined screen size can be scrolled by the user. Buttons, Hot Spots, etc., attached to the Presentation Window will also scroll. Use this option in conjunction with Drawing Area Size settings.

Drawing Area Size

DELUXE

This defines the area of the Presentation Window which can be used for displaying pictures, text, etc. If the Drawing Area Size is larger than the actual Presentation Window, then the scroll bar option should be used.

Auto (default)

The Drawing Area is automatically set to the same size as the Presentation Window.

Fixed Size

Width and Height values can be given, starting at the top, left corner of the Presentation Window. In this way, the area available for the objects placed in the Presentation Window can be larger than the Window itself. A large picture could be shown using the Graphics Image action and the user could scroll across it if the *Scroll Bars* option is set. Any Hot Spots, text etc., on top of the picture will also move as the drawing area is scrolled.

Bk Colour

Checking this option and clicking the *Define...* button will allow the background colour of the Presentation Window to be chosen.

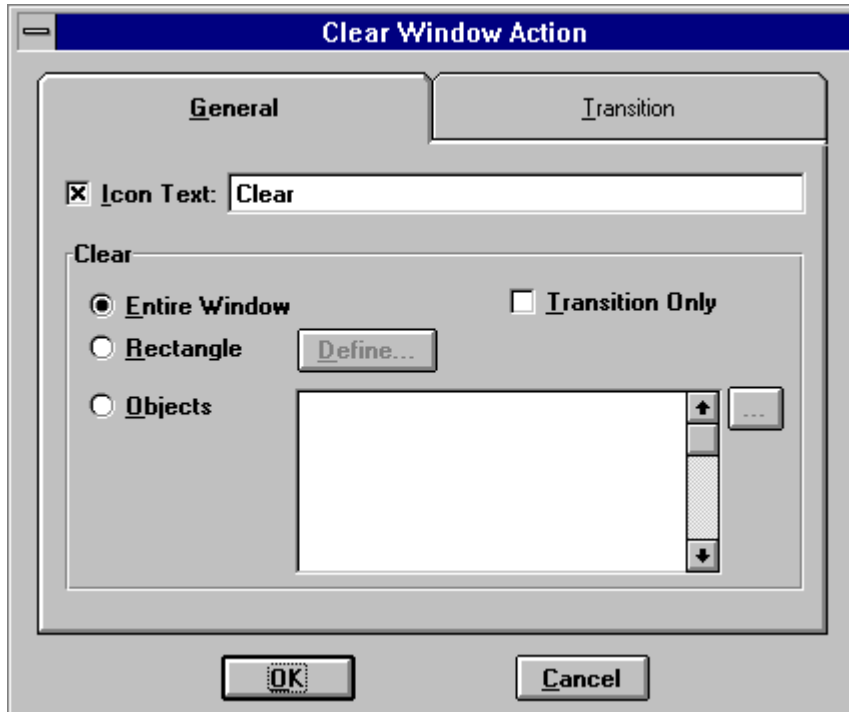
Rescale window contents

When this is checked, any buttons, regions or rectangles in the course will automatically rescale themselves to maintain their relative positioning within the window as if their size is altered. This can be very useful if the same course is to be viewed at different resolutions (e.g. VGA (640x480) and Super-VGA (800x600 etc.)). n.b. the re-scaling of Graphics Images is handled directly by the *Stretch To Fit* attribute of the *Graphics Action* setup dialog box.

Note: All attributes set by this action will remain set until another Window action is activated. Hence, usually, only one Window action is required at the start of the first module of a course.

 **Clear**

This action clears all, or part of, the Presentation Window.

Dialog Box Options**General*****Icon Text***

The text which will be used to label the icon in the course. It will not be seen by the student.

Clear

Specifies how much of the Presentation Window will be cleared by this action


Entire Window

Everything in the Presentation Window will be wiped-out, including animations and movies.

Rectangle

Any object completely enclosed by the area specified with the *Define* button will be wiped-out. Any animations or movies playing in this area will be stopped and removed.

Objects

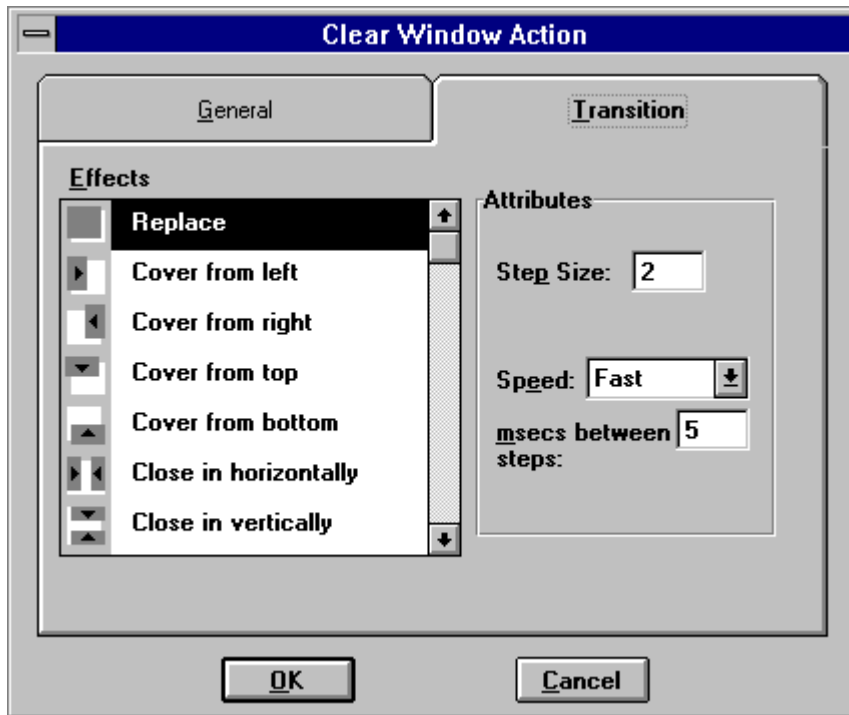
Instead of clearing the Presentation Window by area, individual objects such as pictures and text can be removed by identifying them from the list of currently loaded objects, viewed by pressing the browse button . Objects are identified by their *Icon Text* labels.

Transition Only

This option is used in the special case where objects are to appear on the screen at the same time with the same effect. It does NOT clear the objects - it shows them at the same time. Use this option to add a transition effect to an area or to a group of objects in the Presentation Window

Note: This is not the same as adding transition effects to the individual objects since then they would be displayed one after another in the order in which they appear in the task.

Transition



When part of the Presentation Window is cleared, either by area or by object, the clearing can be accompanied by a transition effect.

Effects

Choose the effect required from the list.

Attributes

Step Size

Specifies how many pixels will be jumped at each increment of the effect - a higher figure will make the effect more rapid, but less smooth.

Speed

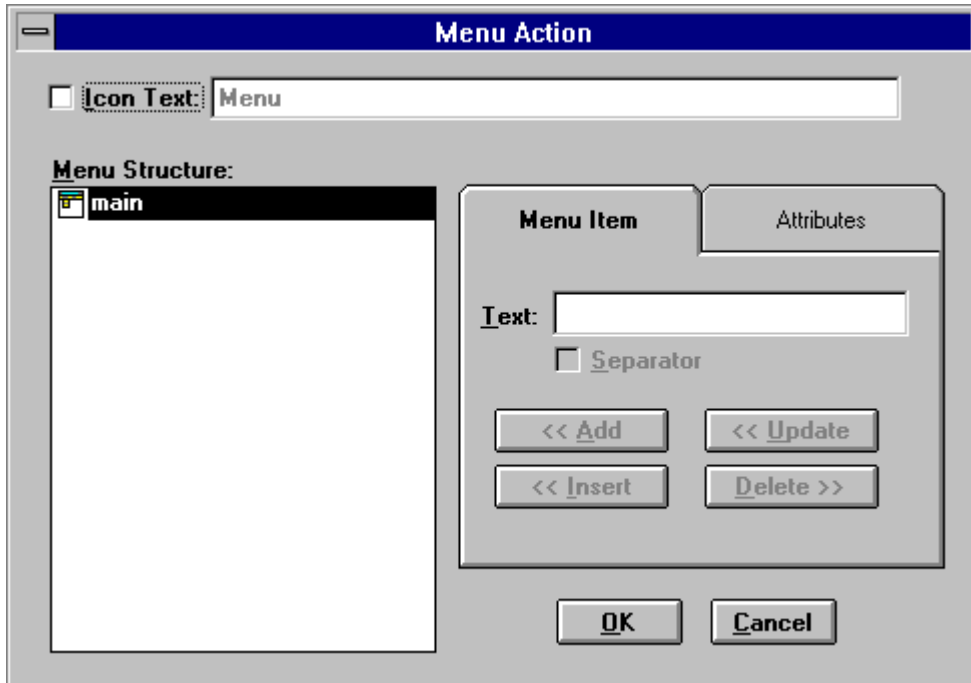
Specifies how long each step will take. It can be specified either from the descriptive list Very Slow/Slow/Medium/Fast/Very Fast or, more accurately, using the *mSecs between steps* option which specifies the speed of the effect in milli-seconds. The smaller the value, the faster the effect will happen. Set the value to 0 to execute the effect as fast as the computer can achieve.

Menu

DELUXE

This action is used to create and modify Windows-style menus beneath the Title Bar in the Presentation Window. The Menu Response can then be used to detect which menu items have been selected by the user. The menu bar created with this action will remain attached to the Title Bar across courses. To remove the menu bar entirely, use a new menu action with no menu items created.

Dialog Box Options



Menu Action

Icon Text: Menu

Menu Structure:

- main

Menu Item | Attributes

Text: []

Separator

<< Add << Update

<< Insert Delete >>

OK Cancel

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Menu Structure

This box shows graphically the structure of the menu bar being created by the Menu Action. As menu items are added, modified or removed, the structure shown in the box will change.

Menu Item

The items in this part of the tabbed dialog deal with adding, removing or modifying menu items.

Text

Type the name of the new menu item here, or click on the item in the *Menu Structure* box to display the text of the menu item for editing. To provide a keyboard short-cut for the menu item, insert an ampersand ('&') character before the shortcut letter. For example, a menu item **Exit** can have **x** as a shortcut key by typing **E&xit** in the *Text* box.

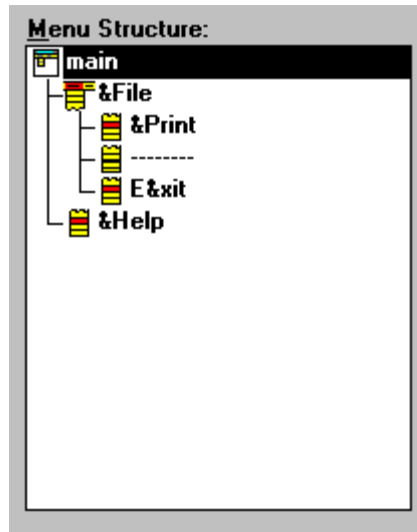
Separator

A line can be inserted between menu items in a particular menu by checking the Separator box and pressing the *Add* button, to add the line after the item currently highlighted in the *Menu Structure* box, or the *Insert* button to add it before. Note: this item only becomes available when at least one item has been added to a menu.

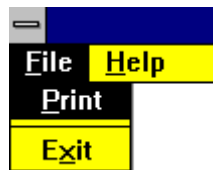
Add

Press this button to add a new menu item as a sub-menu of the currently highlighted item. Thus if the default **Main** item is selected in the *Menu Structure* box, pressing *Add* with the text **File** in the text box would create a new menu called **File**. Adding again with **Print** entered as text when **File** is highlighted would add a menu item as part of the File menu. Highlight **File** again to add another item (e.g., **Exit**).

Thus a menu structure like this:



would create a menu like this in the Presentation Window when the course is run:



Update

Click on a menu item in the *Menu Structure* box to edit its text in the text box. Press the *Update* button to change the menu structure to reflect the modification.

Insert

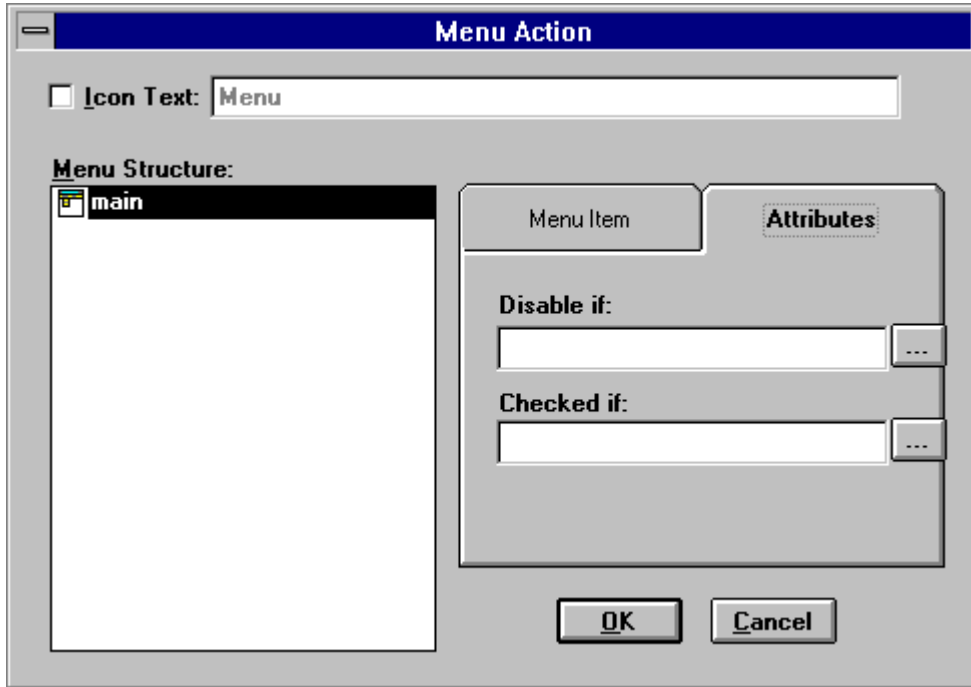
Click on a menu item in the *Menu Structure* box. Enter the text of the new menu item in the *Text* box, or check the *Separator* box. Press the *Update* button to change the menu structure to reflect the modification.

Delete


Click on a menu item in the Menu Structure box. Press the Delete button to remove it from the menu structure.

Attributes

Each menu item can have certain attributes determined by the value of a variables.



Disabled If

A disabled menu item (one which appears in light grey) is used in Windows applications to indicate that a feature normally accessible from a menu item is unavailable at that point. In Dazzler, to disable ('grey out') a menu item in the Presentation Window when a certain variable expression is true at any point during the running of the course, highlight the required item in the *Menu Structure* box and click on the *Attributes* tab. Enter the variable expression in the *Disabled If* edit box. Click the variable browse button  to

display the standard *Insert Variable/Function* dialog box (see *Variables Action* for more details).


Example:

Create a text variable called *PrintMenu* from the *Course/Variables* menu item. Create a menu item in the Menu Action called *Print*. Set the attributes of the *Disabled If* box as follows:

PrintMenu = "Disabled".

Now, whenever the *PrintMenu* variable is set to *Disabled* in the course, the *Print* menu will be greyed-out. If *PrintMenu* is set to any other value (e.g., *Enabled*), the *Print* menu will not be greyed out.

Checked If

A checked menu item (one with a tick beside it) is used in Windows applications to indicate that a particular feature is enabled. In Dazzler, to add a tick (check) to a menu item in the Presentation Window when a certain variable expression is true anywhere in the course, highlight the required item in the *Menu Structure* box and click on the *Attributes* tab. Enter the variable expression in the *Checked If* edit box. Click the variable browse button  to display the standard *Insert Variable/Function* dialog box (see *Variables Action* for more details).

Example:

Create a text variable called *FullScreenMenu* from the *Course/Variables* menu item. Create a menu item in the Menu Action called *Full Screen*. Set the attributes of the *Disabled If* box as follows:

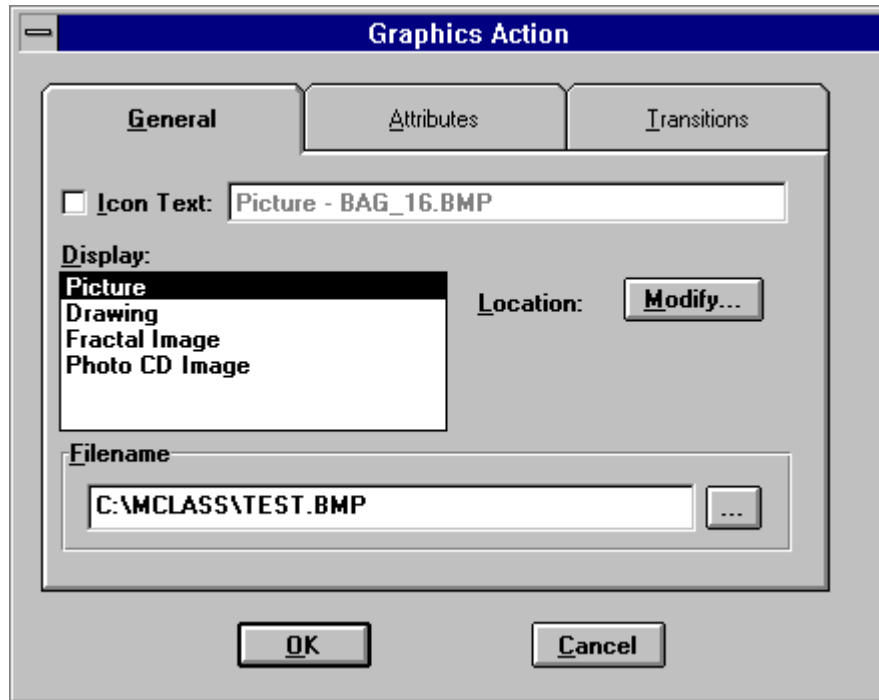
FullScreenMenu = "Checked".

Now, whenever the *FullScreenMenu* variable is set to *Checked* in the course, the *Full Screen* menu will have a tick beside it. If *FullScreenMenu* is set to any other value (e.g., *NotChecked*), the *FullScreen* menu will appear without a tick beside it.

See also: Menu Response, Menu Event

 **Graphics Image**

This action is used for displaying pictures and drawings, stored in a variety of formats, such as bitmaps on the computer's disk or Kodak PhotoCD from a compact disk. You can define where in the Presentation Window the picture will appear and also any effects, such as wipes, dissolves, and so on, to be used.

**Dialog Box Options****General*****Icon Text***

The text which will be used to label the icon in the course. It will not be seen by the student.

Display

This list box allows the selection of different types of graphics images. The best format to use for storing a given image will depend on several factors - what kind of image it is (line drawing, photograph, etc.) and how much space is available for storing it.

Picture

Selects raster format images of the following formats:

BMP

Windows bitmap created by Paintbrush and most other paint packages. Images stored in this format are not compressed in any way, so they can take up more space, but can also be displayed more quickly than some compressed images, since no work has to be done by the computer in decompressing them. Again, the benefits will depend on the type of image. High colour photographs which need to be displayed quickly benefit the most from this format.

RLE

This is a compressed format (Run Length Encoded) used by some Windows paint packages. It is best used on simple 16-colour pictures.

PCX

This is a compressed format, widely used by paint packages such as Windows Paintbrush. It provides good compression, particularly on simple images, but can take a while to decompress, especially for high-colour photographs saved in this format.

TGA

This TARGA format is also compressed and can be found in several paint and photo-processing packages. It is used mainly for storing 24-bit (16.7 million colour) images.

TIF

The TIFF (Tagged Image File format) is commonly used by professional graphics packages, especially on Apple Macintosh computers.

GIF

This is the Graphics InterChange Format developed by CompuServe for compression and distribution of images electronically over telephone lines. A large number of pictures in this format can be found in the Graphics Forum of CompuServe itself.

Drawing

Drawings differ from pictures in the way that the images are stored. Drawings are in vector format. They contain instructions about how to draw the image rather than simply storing a snapshot of the image itself. For this reason, drawing files tend to be far smaller than picture files. They can also be drawn at any size without loss of quality. They are particularly suited to diagrams and line drawings. Only WMF (Windows Metafile) format is supported in Version 3.1. Diagrams can be saved in this format from most drawing packages such as Micrografix Designer and Lotus Freelance for Windows.

Fractal Image

Dazzler Deluxe v3.1 has support for Iterated Systems' FIF files. Pictures stored in this format can have remarkably small file sizes. Large, high-colour photographs, such as those from Kodak's Photo CDs, are the most suitable for this format. Pictures can be compressed with the Images Inc. fractal processing software package, or any paint package which supports FIF file compression. The greater the compression of the images, the smaller the file size, but also the more work the computer has to do in decompressing the images. If speed of display, rather than file-size, is the most important consideration, then BMP is probably more suitable.

Photo CD Image

Dazzler Deluxe v3.1 has support for images stored on Kodak Photo CDs. Up to 100 photographs derived from slides, negatives or undeveloped film can be put onto one CD at low cost, making it an attractive way for trainers and designers to be able to incorporate photographs into Dazzler courses and presentations. You can select which photograph is to be used and at what size from the Browse button in the dialog box. Images can also be saved as bitmaps on the hard disk as well.

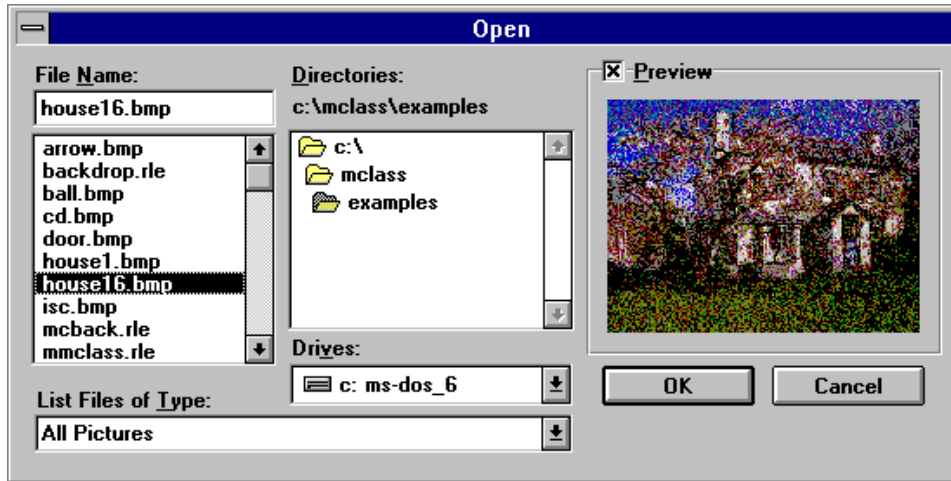
Location

Press the *Define* to position the picture in the Presentation Window, having chosen a picture *Filename*. Click and drag the mouse from the position for the top-left of the picture down to the bottom right. As the cursor is dragged across the screen the specified picture will appear. After releasing the mouse button, the picture can be dragged

around the screen and its area changed by dragging the 'handles' at the corners and side of the picture. To return to the setup dialog box for the picture, simply double click on it and the tabbed dialog box will re-appear.

Filename

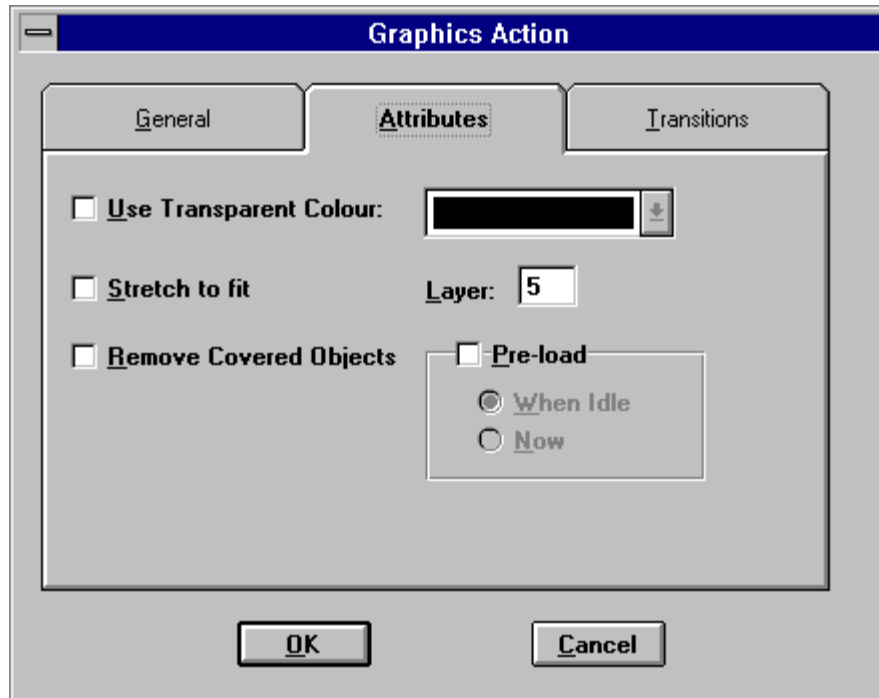
Click the browse button  to display the standard file open dialog box.



Check the *Preview* box to show a miniature view of the picture highlighted in the file list.

Pop down the *List Files of Type* combo box to select pictures of a particular format (see above).

Attributes



Use Transparent Colour

When the box is checked, a colour can be selected from the drop-down combo box. If this colour is present in the picture being shown, it will become transparent and whatever is behind the picture at that point will show through.

Note: 256 colour mode - for this option to work correctly a Palette Action must be inserted before the Graphics Image action and set to *Use System Default*. This will fix the range of colours so that Dazzler can identify the transparent colour correctly.

Stretch to fit

The picture will be stretched horizontally and vertically to fit the window or rectangle defined. This option is best used with simple 16 colour bitmaps - high colour photographs may appear severely distorted using this option, depending on the performance of your graphics card. The speed of display of the picture will also be slower using this option.

Remove Covered Objects

If this is selected then any object covered by the Graphics Image, such as another picture or text, will be removed automatically from the computer's memory if it is completely covered. Sometimes, however, the object should not be removed because it will be used later. For instance, a *Move Object* action might move it into view from behind the picture. In this case *Remove Covered Objects* should not be checked.

Layer

The graphic image is assigned to a layer. The default is 8. Layer 0 is the top-most one and 10 the bottom layer. Thus a text object attached to layer 4 will appear on top of a picture attached to layer 5.

Pre-load

Some types of pictures can take a long time to appear in the Presentation Window when requested, either due to their large size, the speed of reading them from their storage device (especially CD), or the amount of processing which has to be done by the computer to decompress them (for example, Fractal images). Dazzler Deluxe 3.1 enables courseware designers to minimize these problems by pre-loading pictures through a Graphics Action into the computer's memory, so that when another Graphics Action refers to that picture, it will be available immediately for display in the Presentation Window without any loading or decompression delays. There are two options for pre-loading:

When idle (default)

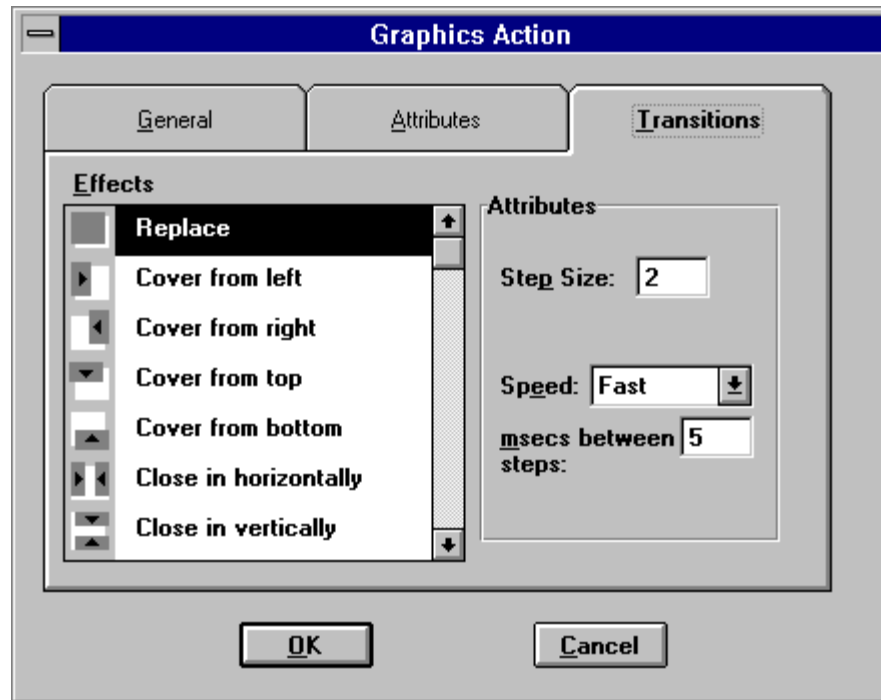
The picture specified will be loaded when nothing else is happening in the course - i.e., Dazzler will load it in-between other activities.

Now

Dazzler will pre-load the image immediately at this point in the course. Thus it is up to the courseware developer to decide if the pre-loading would interrupt any other process (such as the playing of a digital video file).

Note: Two Graphics Image actions are needed for the pre-loading to work correctly: One to do the pre-loading at a point in the course, the other actually to show the image when it is needed. It is not enough simply to check the *Pre-load* option at the point when the Graphics Image should be shown.

Transitions



Display Effects

The list box shows the effects which can be chosen - they will be used at the start of the display of a picture - (e.g., the new picture will be opened out horizontally, covering whatever was on the screen before). The time taken to achieve the effect is determined by the attribute settings:

Steps

Specifies how many pixels will be jumped at each increment of the effect - a higher figure will make the effect more rapid, but less smooth.

Speed

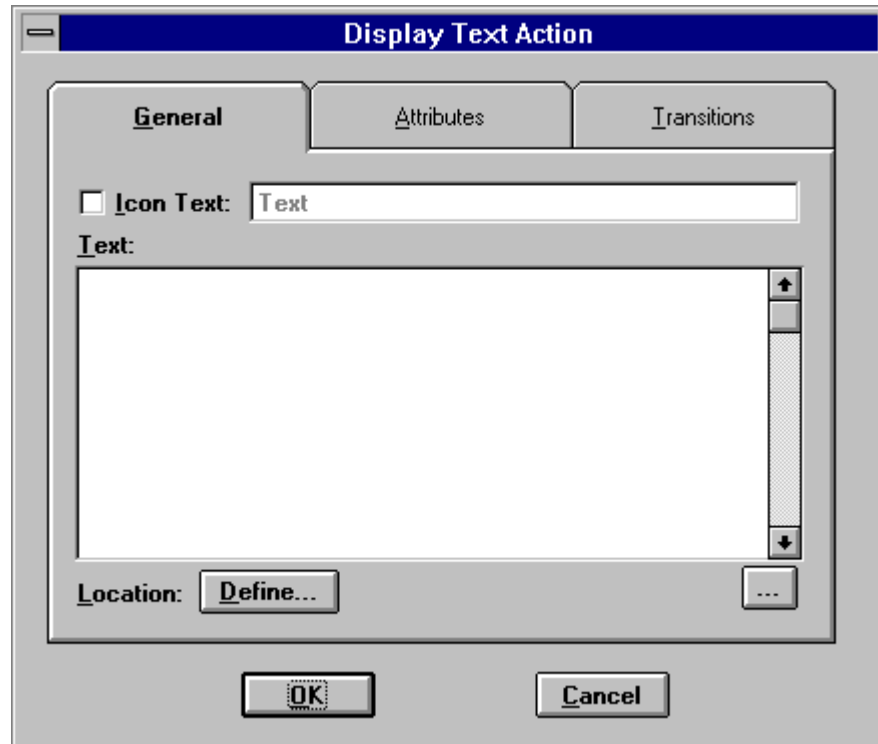
Specifies how long each step will take. It can be specified either from the descriptive list (Very Slow/Slow/Medium/Fast/Very Fast) or, more accurately, using the *mSecs between steps* option, which specifies the speed of the effect in milli-seconds. The smaller the value, the faster the effect will happen. Set the value to 0 to execute the effect as fast as the computer can achieve.

Text

This action displays text in any available font, colour and size. The text can either be entered into the action itself, or read from a file.

Dialog Box Options


General



Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

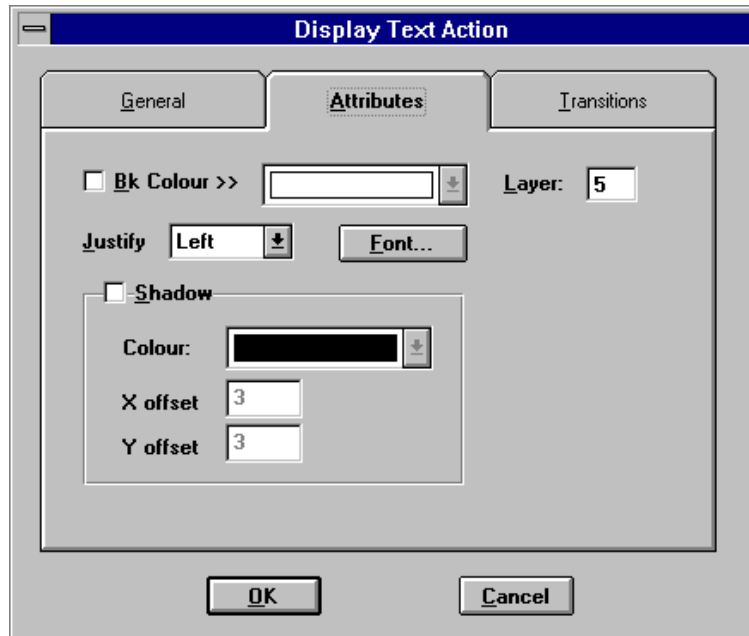
Text

Type in the text which will appear in the Presentation Window here. Values of variables can also be included by typing in the name of the variable in parentheses {...} e.g., *Your name is {StudentName}*, or by selecting a variable from variables browse button  at the bottom of the dialog box.

Location

Select this option to draw a boundary in the Presentation Window for the text to appear in. Click the *Define* button and click and drag the cursor. The text will start at the top left of the rectangle and may extend beyond the limits of the rectangle depending on the font size and amount of text.

Attributes



Font

Click on this button to bring up the standard Windows font selection dialog box, giving a choice of face, size, style and colour for all the text in the current text action. To mix fonts in the Presentation Window, use multiple text actions.

Bk Colour

Checking this box will allow a colour to be chosen from the drop-down combo-box. The basic 16 colours are shown in the list, with a Customize option at the bottom, allowing a colour to be mixed from the entire palette range, up to 16.7 million colours if supported by the graphics hardware. The defined area for the text action will appear in this colour, with the text appearing on top in the colour selected with the *Font* button.

Layer

The text is assigned to a layer. The default is 4. Layer 0 is the front-most one and 10 the bottom layer. Thus a text object attached to layer 3 will appear on top of a picture attached to layer 5.

Justify

This drop-down combo-box determines how the text will be placed within the defined area.

Left

The text will be aligned along the left hand edge of the rectangle or window.

Centre

The text will be centred in the rectangle or window.

Right

The text will be aligned along the right hand edge of the rectangle or window.

Shadow

A drop shadow can be added to the text to give it a 'floating 3D effect', by checking the Shadow check box. The colour and depth of the shadow can be altered using:

Colour

This drop-down combo box provides a choice of shadow colours. The basic 16 colours are shown in the list, with a Customize option at the bottom, allowing a colour to be mixed from the entire palette range, up to 16.7 million colours if supported by the graphics hardware.

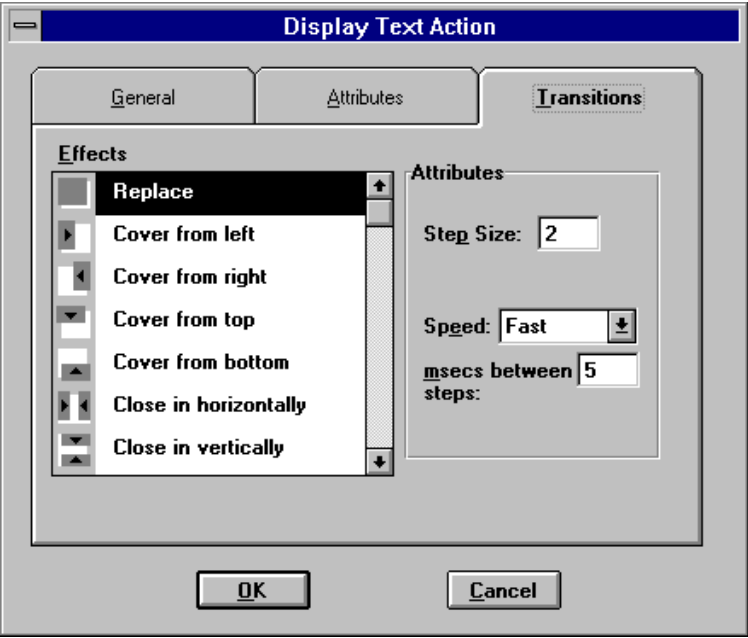
X Offset

This specifies by how many pixels to the right of the text the shadow will appear. The default is 3. Negative values move the shadow to the left (e.g., a value of -10 will put the shadow 10 pixels to the left). The range permitted is -50 to +50

Y Offset

This specifies by how many pixels below the text the shadow will appear. The default is 3. Negative values move the shadow up above the text (e.g. a value of -10 will put the shadow 10 pixels towards the top of the screen). The range permitted is -50 to +50

Transitions



Effects

The list box shows the display effects which can be chosen - they will be used at the start of the display of the text. The time taken to achieve the effect is determined by the attribute settings:

Steps

Specifies how many pixels will be jumped at each increment of the effect - a higher figure will make the effect more rapid, but less smooth.

Speed

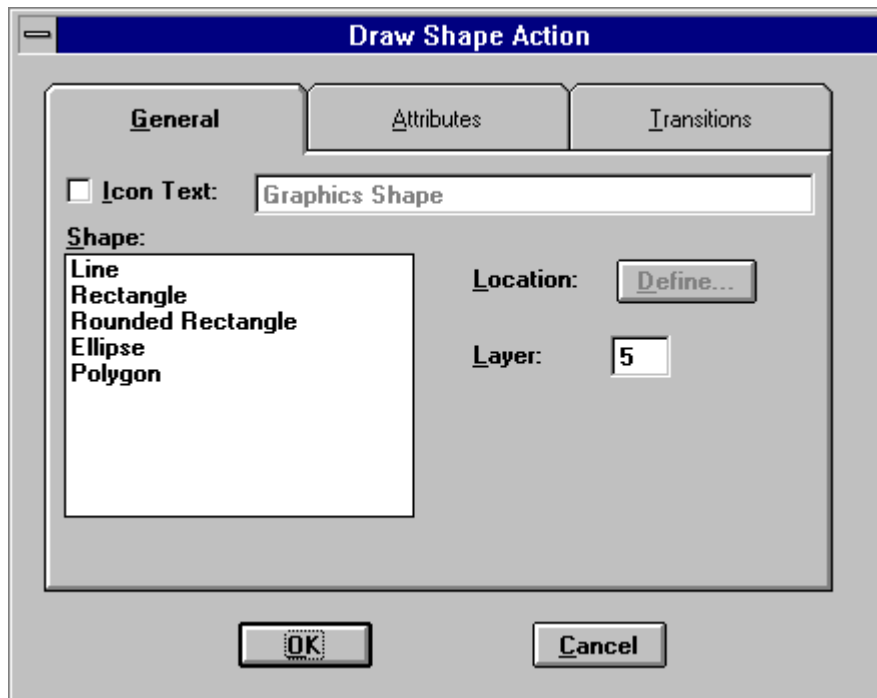
Specifies how long each step will take. It can be specified either from the descriptive list (Very Slow/Slow/Medium/Fast/Very Fast) or, more accurately, using the *mSecs between steps* option which specifies the speed of the effect in milli-seconds. The smaller the value, the faster the effect will happen. Set the value to 0 to execute the effect as fast as the computer can achieve.

Graphics Shape

Sometimes it is useful to be able to add a box, line or border to a screen without having to create a picture file for it. This can be achieved with the *Graphics Shape* action using the dialog box below:

Dialog Box Options

General



Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Shape

Select the shape to be drawn from this list box. The options are:

Line

Rectangle

Rounded Rectangle

Rectangle with rounded corners. The 'roundness' of the corners can be modified by clicking and dragging the square 'handle' which appears at the bottom right inside the rounded rectangle.

Ellipse

Ellipse drawn within boundaries of defined rectangle.

Polygon

Click the mouse to define each point in the polygon. Double-click to complete it. See *Creating Polygon Shapes* in the *Presentation Window* section of this manual.

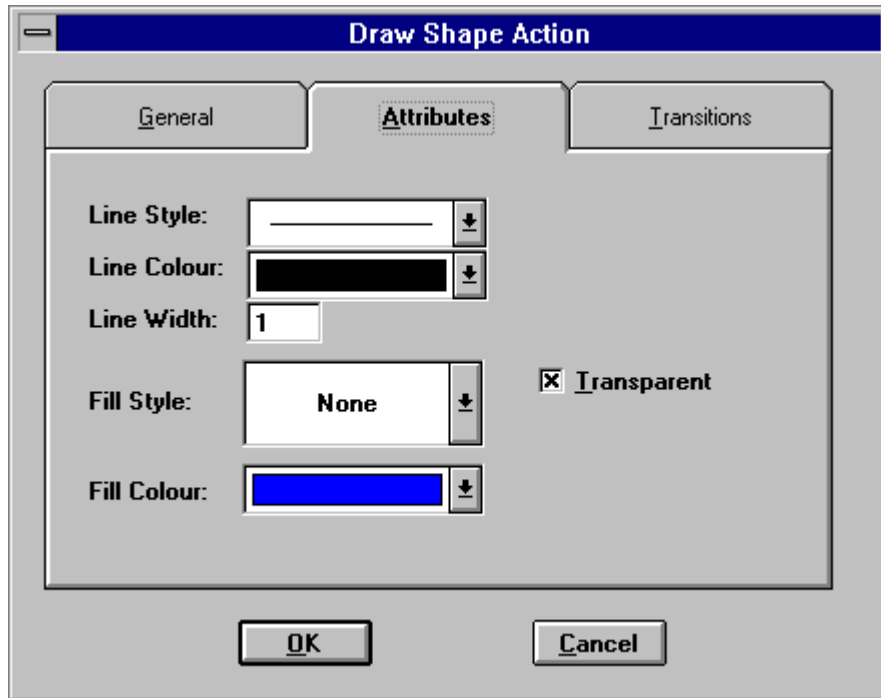
Location

Select this option to define the borders for the graphics shape in the Presentation Window. Click the *Define* button and click and drag the cursor.

Layer

The shape is assigned to a layer. The default is 6. Layer 0 is the front-most one and 10 the bottom layer. Thus, a text object attached to layer 4 will appear on top of a graphics shape attached to layer 6.

Attributes



Line Style

Drop down combo box allows selection of solid, dotted line or shape boundary.

Line Colour

Drop down combo box allows selection of colour of line or shape boundary. The basic 16 colours are shown in the list, with a Customize option at the bottom, allowing a colour to be mixed from the entire palette range, (up to 16.7 million colours if supported by the graphics hardware).

Line Width

Specifies width in pixels of line or shape boundary.

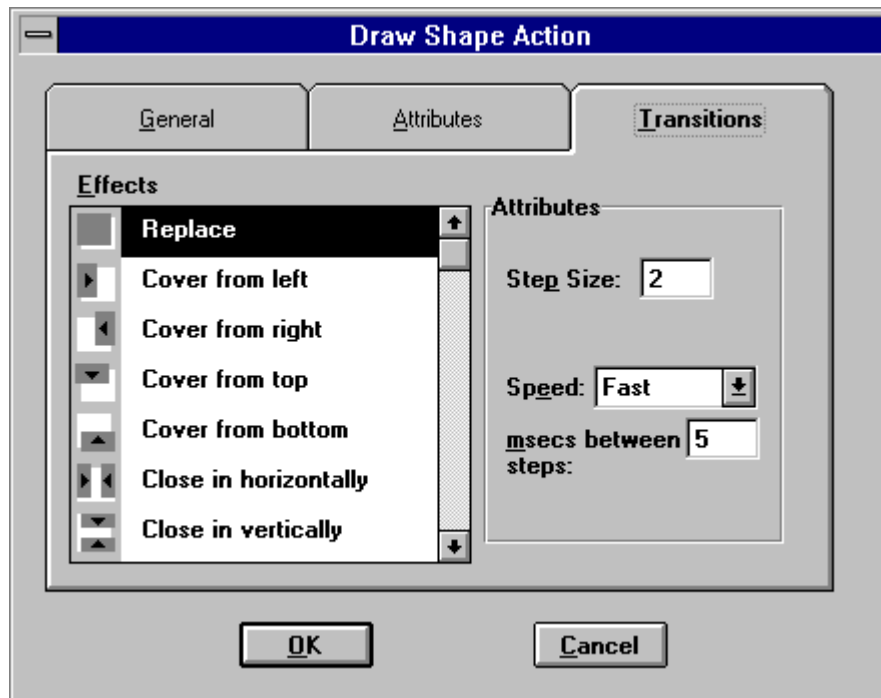
Fill Style

The drop-down combo-box lists the patterns which can be used for filling the shape. The default fill-style is empty, meaning that the shape will not have a fill colour, only an outline. This option has no effect for *Line*.

Fill Colour

Specifies the colour to be used for filling the shape. Has no effect for *Line* or *Polyline*. The basic 16 colours are shown in the list, with a *Customize* option at the bottom, allowing a colour to be mixed from the entire palette range, (up to 16.7 million colours if supported by the graphics hardware).

Transitions



Effects

The list box shows the display effects which can be chosen - they will be used at the start of the display of the graphics shape. The time taken to achieve the effect is determined by the attribute settings:

Steps

Specifies how many pixels will be jumped at each increment of the effect - a higher figure will make the effect more rapid, but less smooth.

Speed

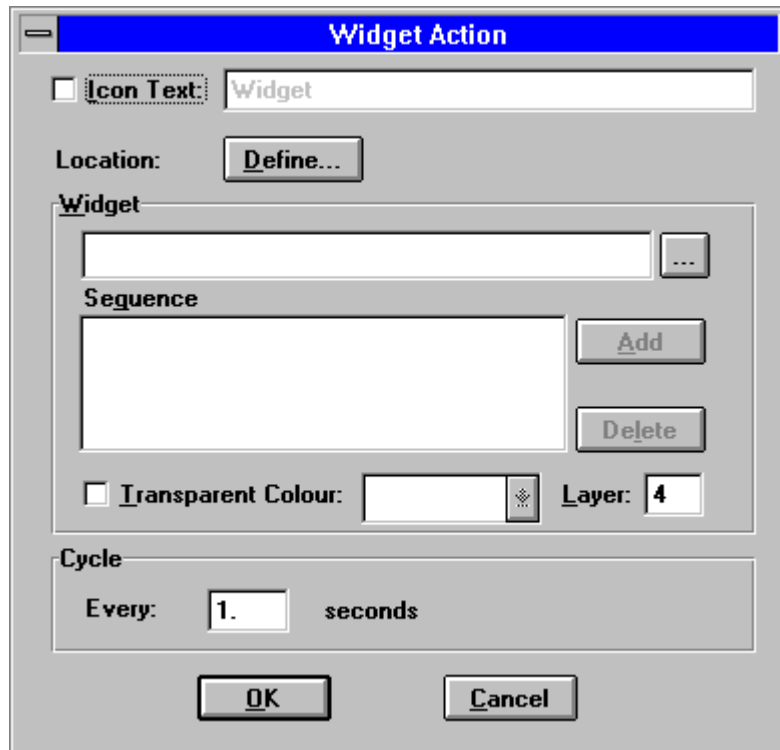
Specifies how long each step will take. It can be specified either from the descriptive list (Very Slow/Slow/Medium/Fast/Very Fast) or, more accurately, using the *mSecs between steps* option which specifies the speed of the effect in milli-seconds. The smaller the value, the faster the effect will happen. Set the value to 0 to execute the effect as fast as the computer can achieve.

Widget

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Widget Action

The bitmap cycling of the *Version 2 Animation* action is handled by the separate Widget action. A sequence of bitmaps is shown *at a defined location*. The time taken to complete one cycle of the bitmaps in the sequence is specified in seconds and fractions of seconds.



The screenshot shows the 'Widget Action' dialog box. It has a blue title bar with the text 'Widget Action'. Below the title bar, there is a checkbox labeled 'Icon Text' which is unchecked, followed by a text field containing the word 'Widget'. Below this is a 'Location:' label and a 'Define...' button. The 'Widget' section contains a text field with a '...' button to its right. Below that is a 'Sequence' section with a large empty list box, an 'Add' button, and a 'Delete' button. At the bottom of the 'Widget' section is a checkbox labeled 'Transparent Colour' which is unchecked, followed by a color selection field and a 'Layer:' label with a text field containing the number '4'. The 'Cycle' section at the bottom has an 'Every:' label, a text field containing '1.', and the word 'seconds'. At the very bottom are 'OK' and 'Cancel' buttons.

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.


Location

Select this option to define the position for the bitmap sequence in the Presentation Window. Click the *Define* button and click and drag the cursor.

Widget

This group specifies the pictures to be moved in the animation and how they will appear on the screen.

Sequence

Click the *Browse* button  to select the bitmap files to form the Widget sequence. Click the *Add* button to add the required file to the sequence list. The bitmaps in this list will be displayed one after another in a loop. In this way, for example, cartoon-type animations can be created and moved about the screen with the *Move Object* action.

(n.b. Bitmaps can be created in Windows Paintbrush - for small pictures, capture an area and select *Edit/Copy To* to save them as bitmaps).

To remove a bitmap from the sequence, highlight its name in the *Sequence* box and press the *Delete* button.

Transparent Colour

Sometimes bitmaps in the sequence contain pictures created against a background colour. When the sequence is run this colour should not appear. For example, for a cartoon sequence displayed on top of a photograph, only the cartoon character should be shown, not the solid colour on which it was painted. To achieve this, check the *Transparent Colour* box and select the colour which matches the background colour from the drop-down list. In this way, the pictures will appear in the Presentation Window without being surrounded with areas of background colour. The background seen will be that of the Presentation Window at that point.

Note: this setting applies only to an individual bitmap in the sequence. The process must be repeated for each one in turn.

Layer

The widget is assigned to a layer. The default is 4. Layer 0 is the front-most one and 10 the bottom layer. Thus a text object attached to layer 3 will appear on top of a widget attached to layer 4.

Cycle

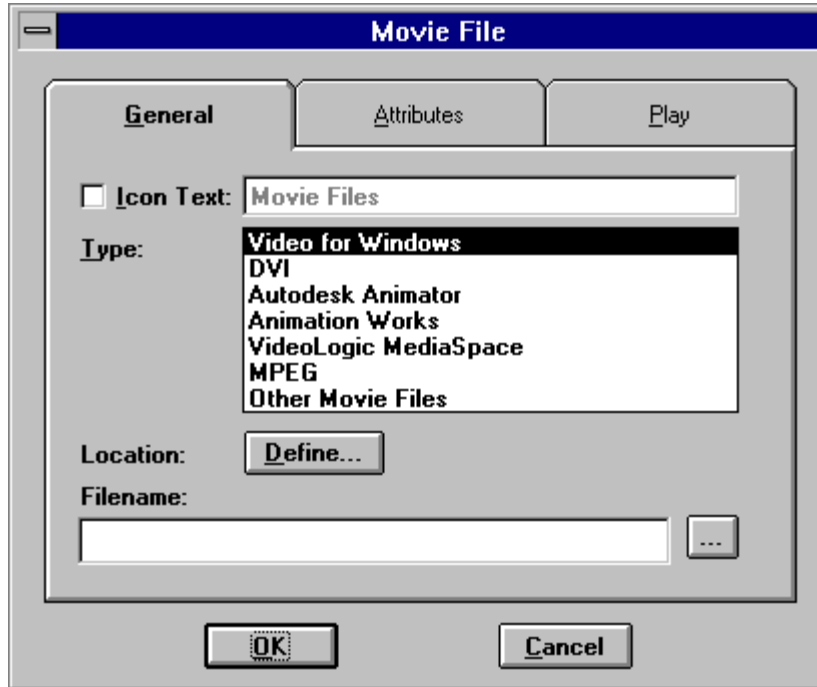
The time taken to display all the bitmaps in the sequence is specified in seconds and fractions of seconds.

Movie File

Digital video and animations stored on computer disk can be played back using this action.

Dialog Box Options

General



Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Type

Choose the type of digital video file to be played.


The options in Dazzler 3.1 are:

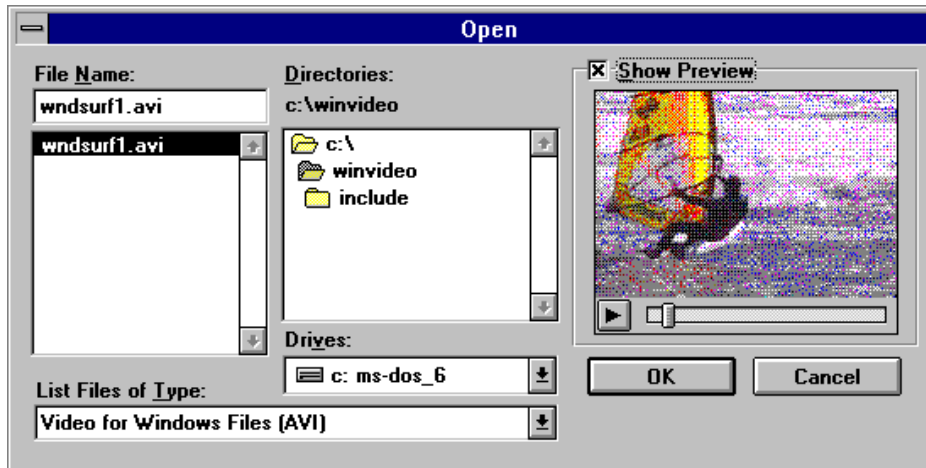
Video for Windows
Digital Video Interactive (DVI)
Autodesk Animator
Animation Works Interactive
VideoLogic MediaSpace
MPEG

Other Movie Files

Select this option if the digital movie type to be used is not listed, but the software drivers for it are installed on your computer (e.g. Apple's QuickTime). This can be tested by seeing if the Windows Media Player in the Accessories group of Program Manager can play it.

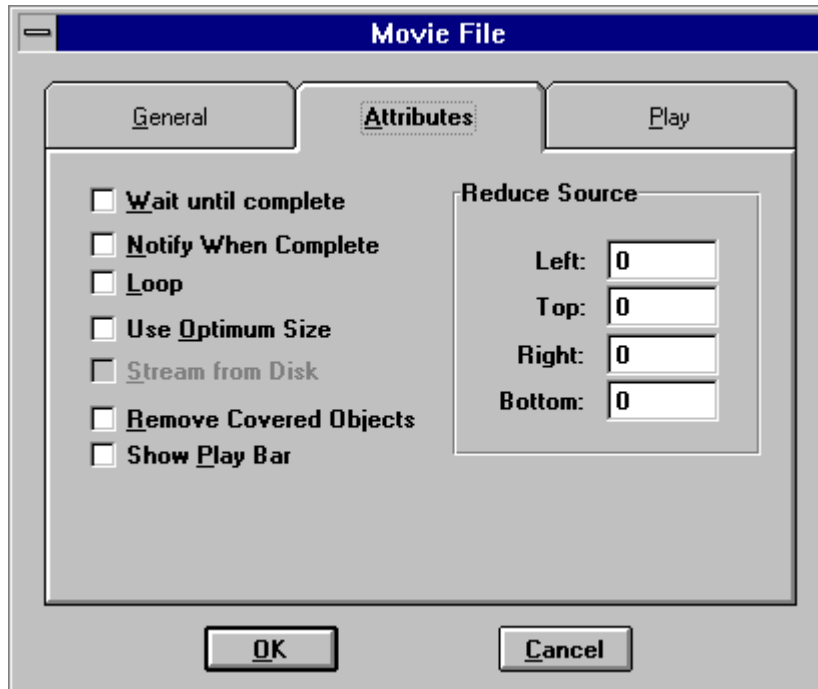
Filename

Click the *Browse* button  to select the movie file to be played. The file browser includes a Preview option to allow movie files to be viewed before inserting them into the course.



Location

Specifies where the video or animation is to appear in the Presentation Window. Click the *Define* button to define a rectangle for the movie to appear in. The first frame of the movie file will be shown as the rectangle is drawn.



Attributes

Wait until Complete

Check this box if Dazzler should wait until the movie has finished before moving on to the next action in the task, or to wait for a Response or activate a new task.

Notify when Complete

Check this box to trigger an *Action Complete* response when the movie has finished playing. Thus, all the actions in the task will be carried out, but the next task will not be performed until the Movie File has finished.

Loop

If the movie should repeat indefinitely, check this box. (Refer to the *Clear Action* for removing looping movies from the Presentation Window).

Use Optimum Size

A Video for Windows file usually has an optimum size (often the size at which it was recorded) which will give the best quality playback without stretching and distortion.

Stream from disk

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This option becomes available when playing Autodesk Animator files. If it is checked, the animation will be played directly from disk rather than loaded into memory. This can be useful for very large animation files. For smaller animations, do not check this option - in this way the animation will be loaded into memory and will usually run more smoothly than if it is run from disk.

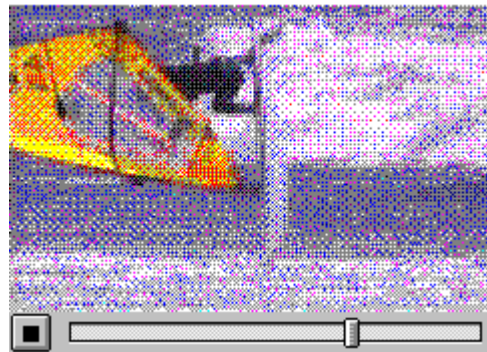
Remove Covered Objects

If this is selected then any object covered by the movie, such as another picture or text, will be removed automatically from the computer's memory if it is completely covered. Sometimes, however, the object should not be removed because it will be used later. For instance, a *Move Object* action might move it into view from behind the video. In this case, *Remove Covered Objects* should not be checked.

Show Play Bar

Check this option to give the user control of the video playing in the Presentation Window. The movie will play back with a control bar at the bottom of its defined rectangle. This has a position bar which indicates progress through the movie and also provides the user with a way of moving to particular points in the movie by dragging the slider bar. A Play/Stop button is also inserted at the bottom left of the defined rectangle, allowing the user to stop and start the movie. (Note: not available for Autodesk Animator files).

Example:



Reduce Source

DELUXE

Use these attributes to show only part of the movie frame. Dazzler will expand the rectangle defined by the co-ordinates to fill the total rectangle defined for the movie file to play in the Presentation Window. The overall effect is a zoomed in view of one area of the movie screen.

Left

Number of pixels to reduce the left side

Top

Number of pixels to reduce the top

Right

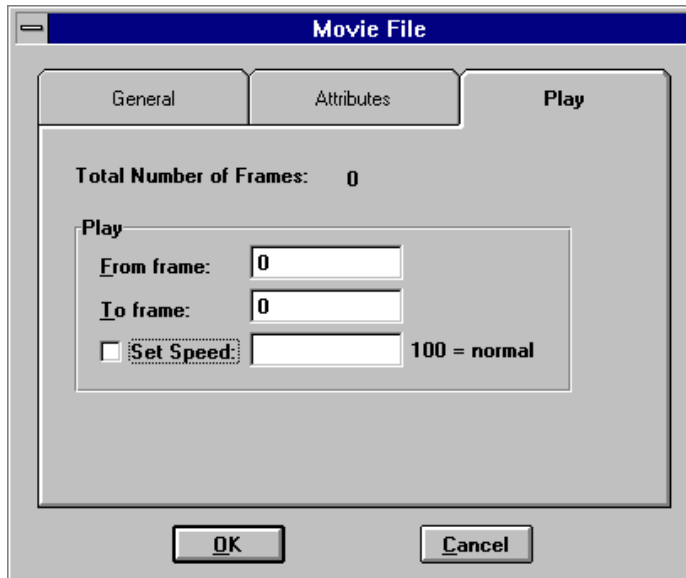
Number of pixels to reduce the right side

Bottom

Number of pixels to reduce the bottom

Example: for a Video for Windows file which normally shows at 160x120 pixels, values of 40,30,40,30 would show just the centre of the movie expanded to fill the area defined for it in the Presentation Window.

Play



Dialog Box Options

Total Number of Frames

Dazzler calculates the total number of frames in the video file chosen and displays it here.

Play

From frame

Sets the start point for the playback of the movie.

To frame

Sets the end point for stopping the playback of the movie.

Speed

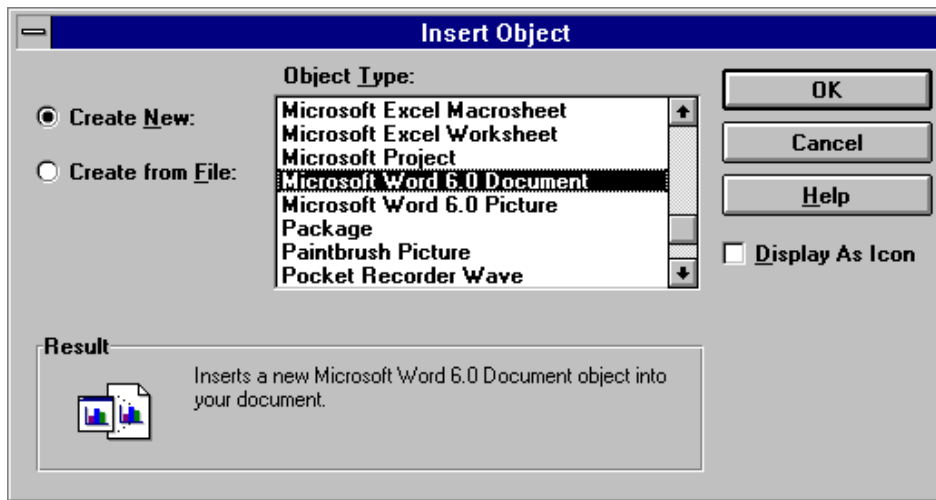
For some types of movie files the speed of playback can be set. The higher the number of frames per second, the faster the movie will run. The maximum speed achievable will depend on the performance of your computer system. Autodesk Animator movie speeds are set in frames per second. The playback speed of other digital video types is set on a scale of 0 to 200, with 100 being the default 'normal' setting. This figure can only be varied if supported by the particular digital video

driver being used. It is supported by Video For Windows, but not by some other digital video types.

OLE 2***DELUXE***

Dazzler 3.1 allows you to embed information such as pictures and text from other Windows applications which support OLE2. For example, a Microsoft Word Document can be added to the Presentation Window, complete with transition effects, as if it were a “native” Dazzler object. The user will be able to see the embedded objects, even if they do not have the application which created it installed on their computer. However, if they do, they will also be able to edit the object in place in the Dazzler Presentation Window, if the check box is set in the OLE2 Action setup.

When the OLE2 action is first inserted into the course and setup by double-clicking on the icon, the following standard Windows OLE dialog box will appear:

***Dialog Box Options******Object Type***

This list shows all the applications on the computer which have registered themselves as being OLE compliant and hence can be used by the Dazzler OLE2 action.

Note: The applications listed here may not actually be available on your computer - the application itself may have been deleted without being fully un-installed.

Having chosen an application document type to use, now decide if an existing document should be used or whether a new one should be created.

Create New (default)

Choose this option if an entirely new object is to be created (e.g., a new word processed document).

Create From File

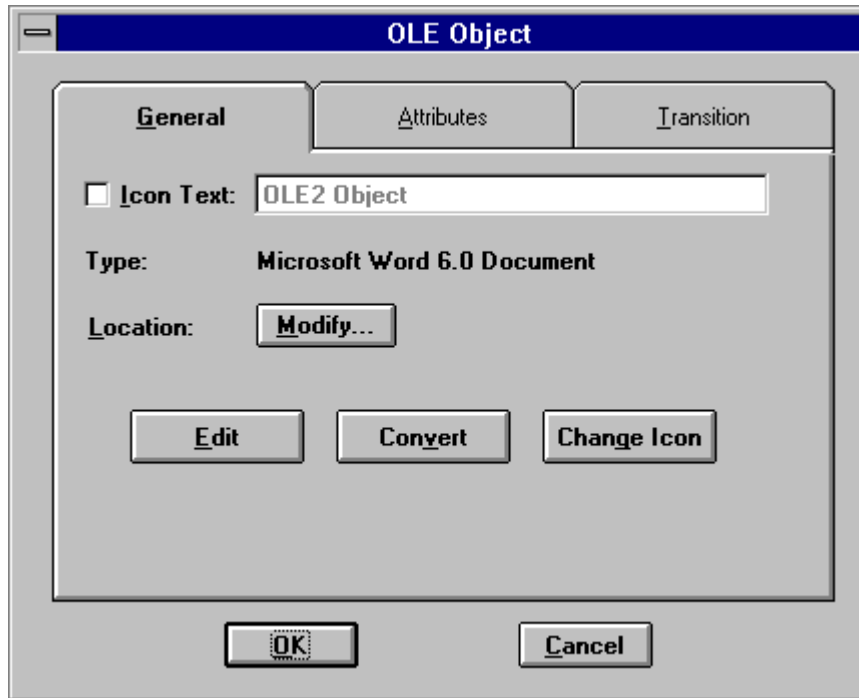
Choose this option if an existing object is to be used (e.g., an existing word processed document).

Display As Icon

Check this box if the OLE object is to appear as an icon in the Presentation Window which the user can click on to display the document, picture, etc. Leave this box unchecked if the document itself is to appear in the Presentation Window.

When the **OK** button is clicked, Dazzler will spend a few moments establishing the OLE link and then the following dialog box will appear:

General



Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Type

Shows the name of the application which created the object being used.

Location Modify...

The object being inserted will have a default size and position, initially based on the size of the object itself (e.g., the width of the picture or the dimensions of the document). To move and resize the object, click this button. The Presentation Window will appear

showing the OLE object. The handles at the edges of the object can be moved to resize the object as if it were a native Dazzler object such as a Graphics Image or Text.

Edit

To change the information contained in the OLE object using the application which created it, click on the Edit button. For example, a document created in Microsoft Word could be modified in Word itself.

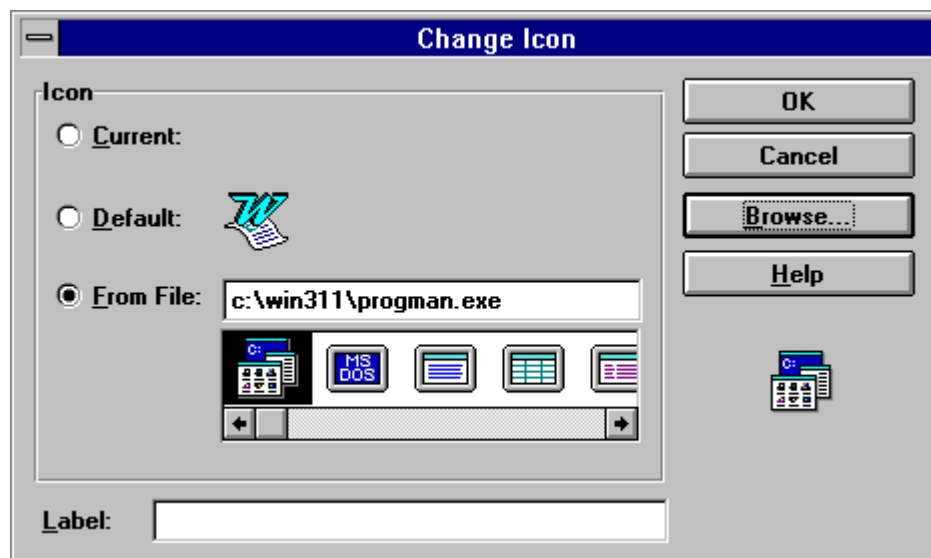
Note: The application which created the document must be present on the computer to do this. However, it is NOT necessary for the end user to have the application installed on their computer to be able to see the document, picture, etc. in the Dazzler course when it is run.

Convert

Not yet available.

Change Icon

If the *Display As Icon* option in the *Insert Object* dialog box has been selected, then the icon which appears in the Presentation Window can be chosen with this option. The following dialog box appears:



Current

Use the icon currently selected.

Default

This option selects the default icon for the application which created the OLE object.

From File

Any icon can be used to represent the OLE object in the Presentation Window. Choose the *From File* option and browse for the application which contains the required icon using the ***Browse...*** button. The icons available in a selected file will be shown in the box below the From File option. Click on the one required to select it.

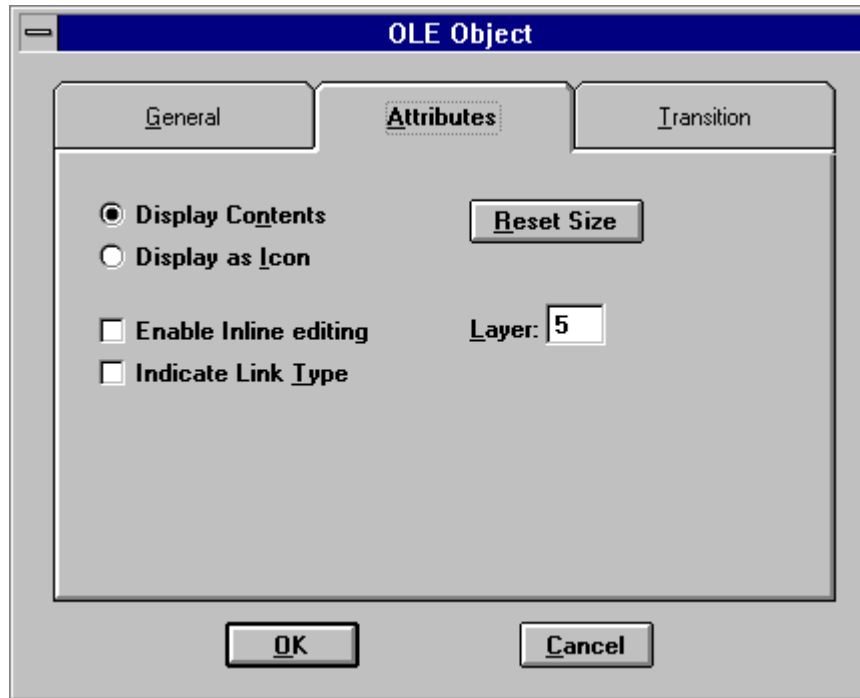
Note: this process is very similar to changing the icons of items in Program Manager.

Label

Text can be entered here which will appear underneath the icon in the Presentation Window.

Note: this is equivalent to labeling icons in Program Manger groups.

Attributes



There are two ways to display the OLE object in the Presentation Window:

Display Contents

The document or picture itself is shown in the Presentation Window. It acts like a native Dazzler object so that transition effects can be applied to it.

Display As Icon

The OLE object is shown only as an icon in the Presentation Window. If *Enable Inline Editing* is selected, the user can double-click on the icon to display the object itself loaded into the application which created it.

Note: The application which created the object must be present on the user's computer to do this.

Enable Inline Editing

If this option is checked, then if the user has the application which created the object installed on their computer, they can double click on the object in the Presentation Window to edit the object directly in the application which created it. The menus and button bar of the application will be shown in the Dazzler Presentation Window. Clicking anywhere else in the Presentation Window will return control to Dazzler.

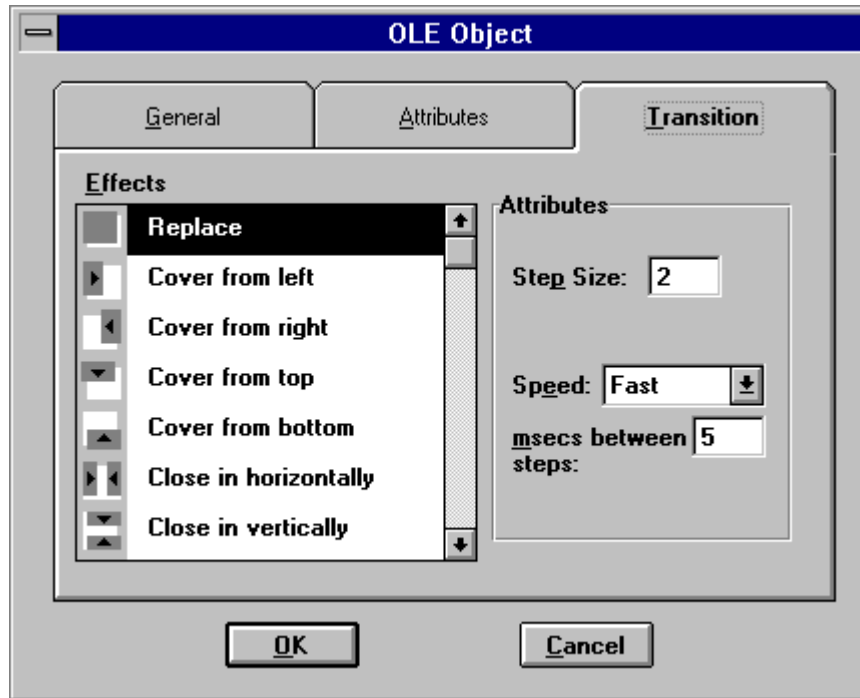
Reset Size

The icon in the Presentation Window representing the embedded OLE document can be set to its normal size rather than stretching to fit the defined area for the document.

Layer

The OLE object is assigned to a layer. The default is 6. Layer 0 is the front-most one and 10 the bottom layer. Thus a text object attached to layer 4 will appear on top of a graphics shape attached to layer 6.

Transition



Effects

The list box shows the display effects which can be chosen - they will be used at the start of the display of the embedded OLE application document. The time taken to achieve the effect is determined by the attribute settings:

Steps

Specifies how many pixels will be jumped at each increment of the effect - a higher figure will make the effect more rapid, but less smooth.

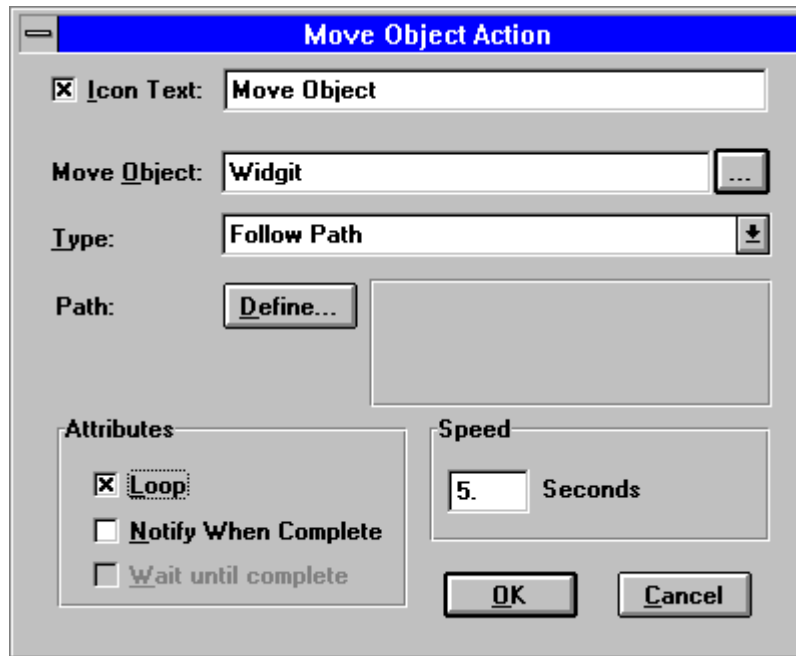
Speed

Specifies how long each step will take. It can be specified either from the descriptive list (Very Slow/Slow/Medium/Fast/Very Fast) or, more accurately, using the *mSecs between steps* option which specifies the speed of the effect in milli-seconds. The smaller the value, the faster the effect will happen. Set the value to 0 to execute the effect as fast as the computer can achieve.

Move Object

Any action object - Pictures, Text, Graphics Shape, Widgets and even Movie Files can move along paths. These paths can be defined as point-to-point, points representing a path, points indicating a (Bezier) curve and so on.

n.b. The Animation Action of Version 2 now becomes a special case - a Widget action followed by a Move Object action.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Move Object

To use the Move Object Action, first of all select an object to move by clicking on the *Move Object* browse button. A list of the currently available objects will be shown.

Type

Choose what type of path is to be followed:

Follow Path - as defined by clicking the mouse once on each point in the path having pressed the *Define...* button. Bezier curves can then be introduced in the path by double clicking on two points on the path, changing them from squares to circles. The points can then be dragged to define the degree of the curve.

See *Creating Polygon Shapes* in the *Presentation Window* section of this manual.

The other types of path which can be chosen are:

Point To Point

Moves the object directly from one defined point to another.

Point On Scaled Path

Moves the object to a point along a defined path determined by a value on a scale.

The range of the scale (e.g., 0 to 100) is set using the *Base* and *End* edit boxes. *Position* determines how far along the scaled path the object will be positioned.

Move To

Moves the object to a specific point determined by the *X* and *Y* values. If the *Speed* setting is set to 0 the object will be relocated to the point immediately without the user noticing any movement.

Speed

Use the *Speed* setting to determine how long the object will take to complete the chosen path. Dazzler will test the performance of the computer running the course before this action is activated. This allows it to determine the maximum number of steps which can be drawn from one end of the path to another in the time specified. Thus on a computer with a fast graphics card a larger number of steps will be possible, making the movement appear more fluid. On a slower computer, there will be fewer steps possible and so the movement will appear to be more broken-up.

Attributes

Loop

If the movement of the object should repeat indefinitely, check this box. (Refer to the *Clear* Action for removing looping actions from the Presentation Window).

Notify When Complete

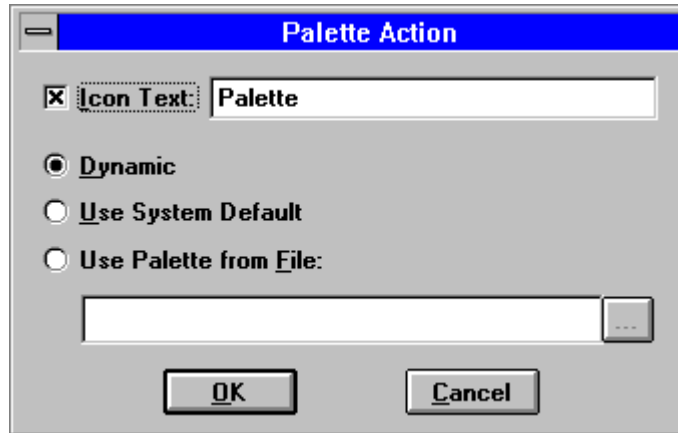
Check this box to trigger an *Action Complete* response when the object has reached the end of its path. Thus all the actions in the task will be carried out, but the next task will not be performed until the movement of the object across the Presentation Window has finished.

Wait Until Complete

Check this box if Dazzler should wait until the object movement has finished before moving on to the next action or response in the task, or to activate a new task.

Palette

The palette action's main role is to try to overcome problems in the way in which Windows handles 256 colour pictures. In earlier versions of Dazzler, the potential clash in colour palettes between two 256 colour pictures displayed at the same time was handled by Windows itself. The result was screen 'flashing' as one picture changed its palette to that of the topmost picture. In Version 3.1, the author has more control over this behaviour:



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Dynamic

This default setting replicates the intrinsic behaviour of Version 2 as described above.

Use System Default

This will prevent palette switching by simply using the standard Windows 'rainbow' palette which contains shades of all colours.

Use Palette from File

This forces Windows to use the palette from a particular picture file. Thus if a series of pictures contain similar colours, the palette from one of them can be loaded using the Palette Actions and then the pictures displayed using the Graphics Image Action. No 'flashing' will be seen, but the accuracy of the colours in the pictures will depend on how close their colour palettes are to the one loaded in the Palette Action.

Palettes can be loaded from BMP, RDI or PAL files.

Sound

With a Windows-compatible sound card (see System Requirement) sound files can be played back from the computer's disk. In addition, you can select tracks from an audio CD in a CD-ROM drive or play MIDI music files with a compatible device.

Dialog Box Options

General



Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Type

System Beep

To create a simple alert use this option to sound the default beep on the computer, however it is configured.

Sound Files

If the computer is equipped with a Windows-supported sound card, Dazzler can play back sound files through it.

Compact Disc

A CD-ROM player connected to the computer, usually via a SCSI interface, can play back audio compact discs.

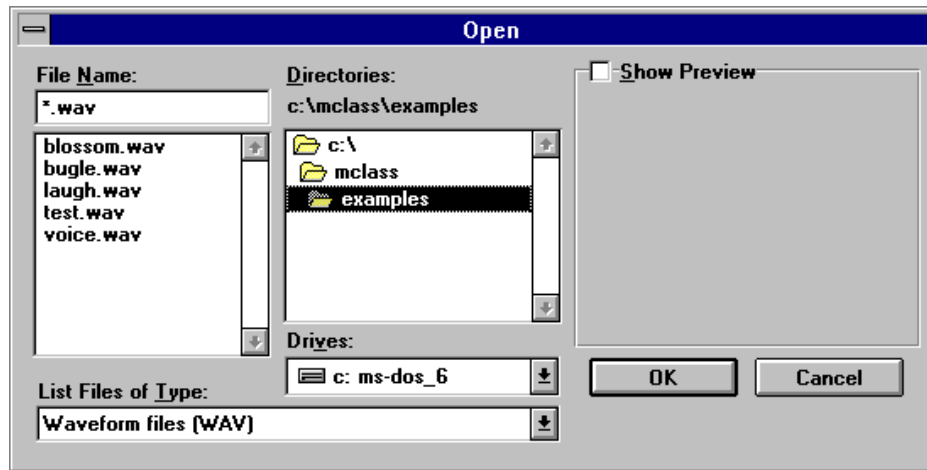
Record

DELUXE

In addition to playing back digital sound, Dazzler can also record sound as part of a course if the computer is equipped with a sound card capable of recording as well as playing back digital sound.

FileName

If you choose *Sound Files* as the *Play* source, this button allows you to browse for the required file using the standard Windows file open dialog box. The type of sound file (WAV, MIDI, etc.) can be chosen within this dialog box.



List Files Of Type

Waveform file

This is the standard windows '.WAV' file format for digital sound. Applications such as the Windows Sound Recorder in the Accessories group can be used for creating such files.

MIDI file

MIDI files contain instructions for electronic instruments about tunes, rhythms and type of sounds to be played. Many sound cards have built-in music synthesizers which can replay these files. They can be created using a MIDI sequencing package, again often supplied with the sound board.

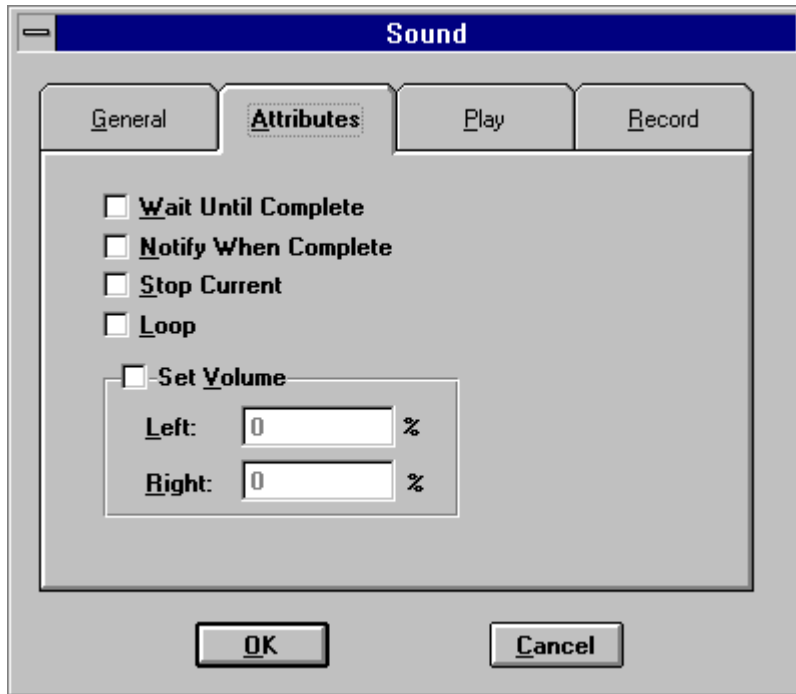
MPEG Audio Files

Sound recorded using the MPEG specification can be played back if this option is selected.

Preview

A sound can be tested before it is included into a course when this check box is set. The sound will be played back when it is selected from the list of files

Attributes



These check boxes determine how the audio will behave during the action:

Wait until complete

The next action will not be started until the current audio action has been completed - the audio device has complete control if this option is chosen.

Notify When Complete

Check this box to trigger an *Action Complete* response when the sound has finished playing. Thus, all the actions in the task will be carried out, but the next task will not be performed until the sound has reached the end of its playback.

Stop current

If any sound file is already playing when this action is activated, this option will stop it.

Loop

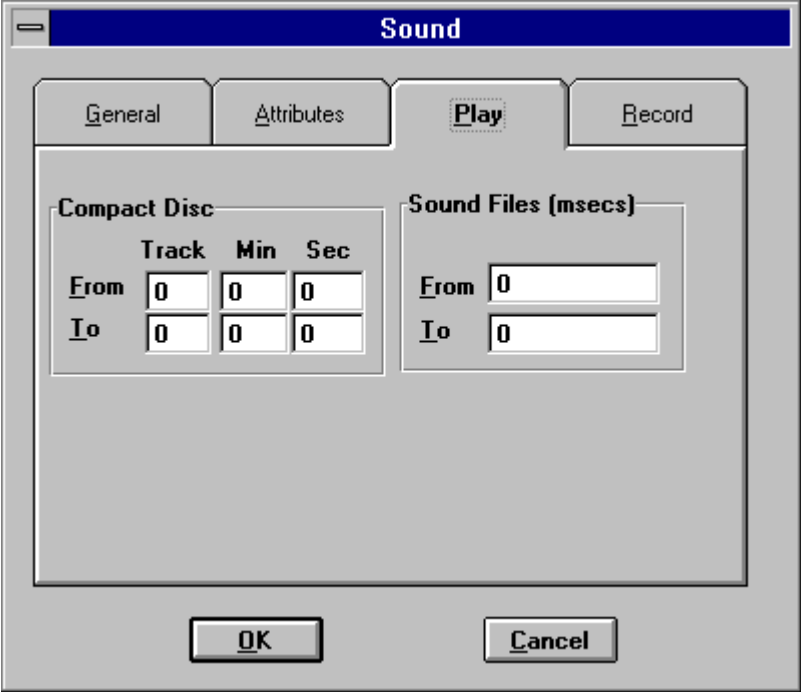
The sound file or CD tracks will be repeated indefinitely unless interrupted by another action with a Stop Current set.

Set Volume

The volume level at which a sound file is played back can be set if this box is checked. The Left and Right volume levels can be set independently. The range of values is from 0% (quietest) to 100% (loudest). If this option is not checked, the default volume for the sound card is used.

Note: Not all sound cards support volume control. Dazzler supports SoundBlaster compatible cards directly though the Master Volume control setting.

Play



Compact Disc

If *Compact Disc* is chosen as the *Play* source, then the start and end tracks can be specified (*From, To*) as *Track* number, *Minutes* and *Seconds* into track.

Sound Files

If *Sound Files* is the chosen *Play* source, then the start and end points of the playback of the sound file can be specified (*From , To*) in milli-seconds. In this way the play-back of the sound can be edited. Using several *Sound* actions a long WAV file can be broken up and different parts of it played back in different parts of a course.

Note: Variables can be used for the *From* and *To* values.

Record

DELUXE



These settings are used when the *Sound* action is used to record sound digitally at this point in the course.

Note: Not all audio devices allow the recording attributes to be set.

Record In

Determines if one or two channels will be recorded. The options are:

Mono

Stereo (if a stereo sound card is being used). Stereo sound files are larger than mono ones.

Sample Size

Specifies how many bits of information will be used to digitise the sound. The options are:

8 Bit (Default)

16 Bit

Sound files recorded in 16 bit will sound clearer, but the file size will be larger than those recorded using 8 bit.

Record Quality

Specifies the sample rate for digitising the sound. The higher the sample rate, the wider the range of sound frequencies which will be recorded, and hence the higher the audio playback quality for some types of sound. Higher sample rates create larger sound files.

11 kHz

The lowest quality, adequate for speech.

22 kHz

Medium quality, suitable for high quality voice reproduction and music

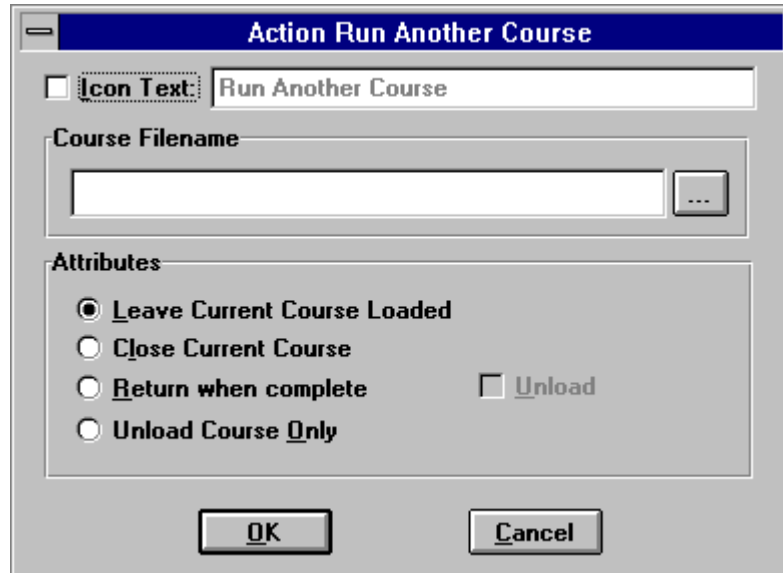
.

44 kHz

Full audio CD quality sound. Suitable for the highest quality sound.

Run Another Course

Courses can be built as a series of modules stored as individual Dazzler courses. They can then be linked together by this action. This helps in the construction and maintenance of large courses.




Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Course Filename

Click the browse button  to select the Dazzler course to be run from this action.

Attributes

The choices here determine how the two courses will be linked.

Leave Current Course Loaded

The new course will be loaded and run, but the course from which it is called will be kept in memory for later use.

Close Current Course

The new course will be loaded and run, and the course from which it is called will be removed from memory. If it is needed later on, it will be loaded from disk.

Return when complete

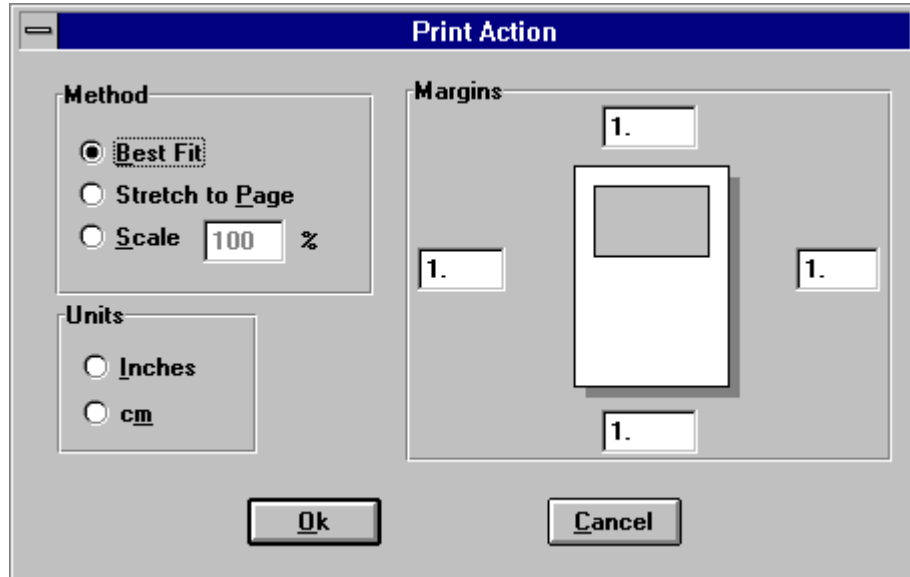
Select this option to resume the current course when the one being called has finished. The course will continue with the responses of the current task in the course. (Any remaining actions will not be executed). Check the *Unload* option to remove the course from memory when it has finished.

Unload Course Only

If there is a course loaded into memory which is no longer needed, use this option to unload it. The course selected will not be run, it will simply be removed from memory.

 **Print**

Anything displayed in the Presentation Window can be printed during the course using this command (except movies, edit boxes and list boxes).



Dialog Box Options

Method

Use these radio buttons to determine how the Presentation Window will fit onto the printed page:

Best Fit

The window image will be printed as it appears on the screen with no stretching. The maximum width of the page will be used.

Stretch to Page

The window image will be stretched so that it fills the whole printed page in both width and height.

Scale

The window image will be reduced proportionally from 100%, which is equivalent to Best Fit, downwards.

Units

These radio buttons choose which units are used for margin measurements. The options are:

Inches

cm

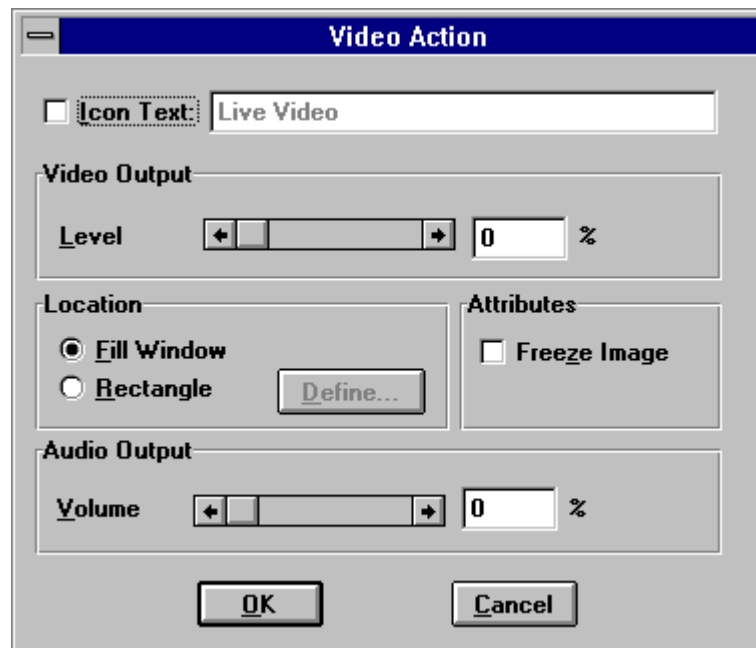
Margins

The interactive diagram gives a view of where the window image will appear on the page. Increasing the size of the top margin will move the printed image downwards.

Live Video

DELUXE

If a video overlay card is installed to display the signal from a video recorder, video disk player or camera on the computer screen, then this action can be used to position the video in the Presentation Window. It does not handle digital video from the hard disk or compact disc (see *Actions - Movies*)



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Video Output

Level

Scroll slider bar determines the brightness of the video in the Presentation Window - the most usual settings are 0% (default) for video off and 100% for video on.

n.b. Fade time can also be set from this dialog box for overlay cards which support this feature.

Location

These radio buttons determine where the video picture will appear in the Presentation Window:

Fill Window

The video picture will be stretched to fill the whole of the window.

Rectangle

The Define button allows a rectangle to be specified by clicking and dragging the cursor. The video picture will be stretched to fit this rectangle exactly.

Attributes

Freeze Image

Check this box to freeze the image at the point at which this action is carried out. This can be particularly useful for preventing 'jitter' when a video tape is paused. The next Video Action without this option selected will unfreeze the image again.

Audio Output

Volume

Scroll slider bar determines the volume of the audio channel of the VCR or video disk. It does not control the level of digital sound played back through a sound card (see *Sound* action).

n.b. Fade time can also be set from this dialog box for overlay cards which support this feature.

 **Tape Control**

DELUXE

If you have a video tape recorder or video disk player which has MCI software support, you can control it through this action. For instance, searching to a particular part of the tape and going to 'play'. In conjunction with the 'Video' action the video picture can then be shown to the student.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Tape Action

The list box displays all the possible actions which can be carried out:

No Action

Play Fwd

Pause

Eject

Goto and Pause

The tape or disk will be searched until the requested point is found and the tape will 'pause' (or disk will 'still').

Goto and Play

The tape or disk will be searched until the requested point is found and then it will be played forward at normal speed.

Stop

Slow Play Fwd

Slow Play Rev

Fast Play Fwd

Fast Play Rev

Fast Fwd

Fast Rev

Play Rev

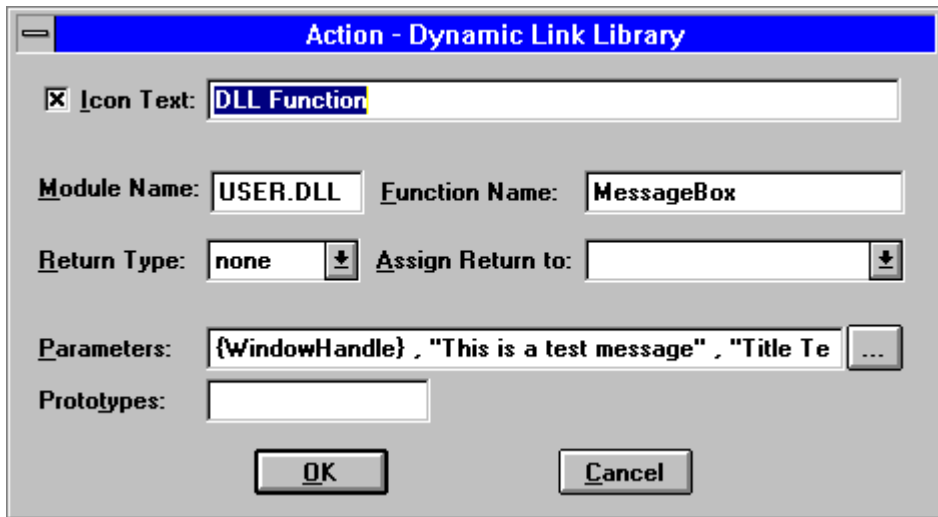
Get Tape Data

This can be used when a Panasonic 7350 VCR is used as the controllable video source. In addition to writing a frame-accurate time-code to the tape, additional information about the tape ID and any frame offset required can also be recorded at the same time. The Get Tape Data option in this action can be used to read this data and automatically incorporate it into a course. If the ID retrieved from the tape does not match the ID stored with the course (see Menus/Course/Frame Offset above), an error message to that effect will be displayed and the course will terminate. This is used to make sure that the student has inserted the right tape for the course chosen.

DLL*DELUXE*

Dynamic Link Libraries, or DLLs, are computer programs containing specific functions which can be called from other programs whenever they are needed. Windows itself consists of a vast array of functions stored in DLLs. These and other DLLs, usually written in the C or C++ programming languages, can be accessed directly from Dazzler using the DLL Action.

To use the DLL Action you must know the function names contained in the DLL you want to use and the parameters those functions need. For example, to make a DLL function call to Windows itself to display a Message Box with some text in it, the following settings would be used.

**Dialog Box Options***Icon Text*

The text which will be used to label the icon in the course. It will not be seen by the student.

Module Name

The file name of the DLL itself.

Function Name

The name of the function within the DLL which is to be called from the action.

Return type

Specifies what type of information will be expected to be returned by the function within the DLL. Possible values are :

none
string
byte
word
long
float

Assign Return to:

Select a variable which will store the data returned by the function called in the DLL. Click the down arrow to show a list of all the available variables, both those built-in and those added via the *Course/Variable* menu.

Parameters

The data passed into the function, whether directly as values, or as variables, for example:

Parameters : {WindowHandle} , "This is a test message" , "Title Text" , 1

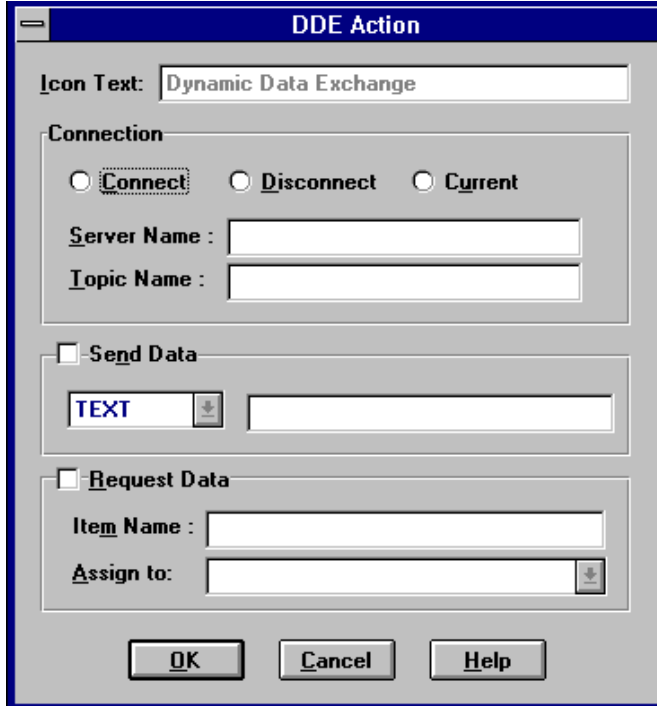
Prototypes

Not yet implemented.

n.b. A full description of the functions in the DLLs which make up Windows can be found in the Microsoft Windows Programming Reference Manuals.

 **DDE*****DELUXE***

Dynamic Data Exchange is a powerful way for Windows programs to communicate with each other. With this command an application such as Microsoft Excel can be requested to load a particular spreadsheet and carry out certain actions. Usually the whole 'macro' language of the package being controlled can be used in DDE commands. Refer to the specific application's reference manual for details of its DDE command set, including the Server and Topic names.



DDE Action

Icon Text:

Connection

Connect **D**isconnect **C**urrent

Server Name :

Topic Name :

Send Data

Request Data

Item Name :

Assign to:

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Connection

Select which application the DDE 'conversation' refers to:

Connect

Start a new DDE conversation.

Disconnect

End a current DDE conversation.

Current

Continue with a DDE conversation which has been started earlier.

Server Name

The DDE name of the other application in the conversation (e.g. "WINWORD"). Check the Reference Manual of the other application for this information.

Topic Name

The DDE name of the type of conversation being held with the other application (e.g. "SYSTEM"). Check the Reference Manual of the other application for this information.

Send Data

Once a DDE conversation has been opened between Dazzler and the other application, data can be sent to the other application, for example to open a file or to run a particular command. Select the *Send Data* check box, choose the type of data to be sent (only *TEXT* is supported in Dazzler v3.1) and enter the command in the edit box. For example:

[FileOpen.Name = "C:\CONFIG.SYS"] .

n.b. Variables can also be used in data commands e.g. *{StudentName}*. See the *Course/Variables* menu and the *Variables* action.

Request Data

Since DDE conversations are two way, Dazzler can ask the other application to supply data, for example the value of a particular cell in a spreadsheet.

Item Name

Enter the request for the data to be passed back. Check the Reference Manual of the other application for this information.

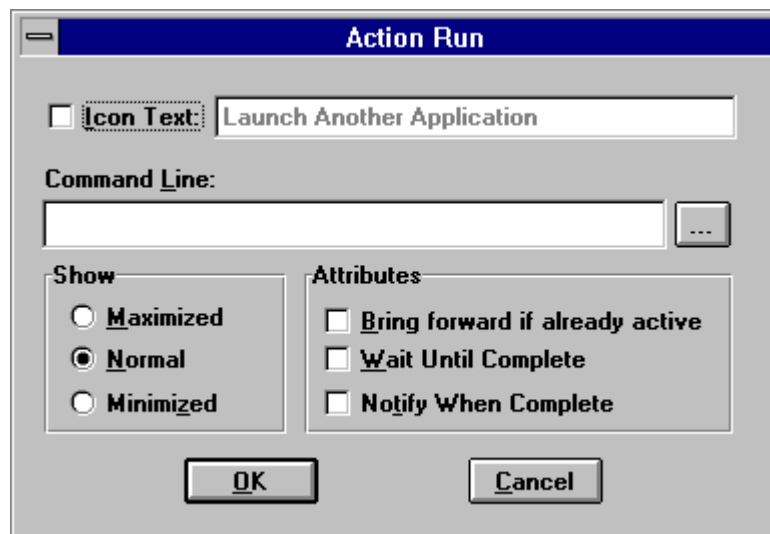
Assign To

The data passed back can be assigned to a Dazzler variable. Use the popup list to select the variable to be used to store the data.

Launch Another Application

DELUXE

This allows another application to be run at certain points in the course. For example, the Windows calculator could be invoked when the student has calculations to perform during the course. DOS programs can also be run.




Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Command Line

Type in the command needed to activate the application - for example "C:\WINDOWS\CALC.EXE", or use the Browse button  to find the program using the standard Windows file dialog box.

Show

Determines how the application will appear when it is run:

Maximized

The application window will fill the whole screen.

Normal

The application window will appear the size it would if started from its own icon.

Minimized

The application will appear as an icon at the bottom of the screen as if it had been started and the minimize button selected from its title bar.

Attributes

Bring forward if already active

If the application is already running when this action is activated, the application will be moved forward to appear on top of all other active windows, including the Presentation Window.

Wait Until Complete

The next action will not be started until the application launched from this action has been closed.

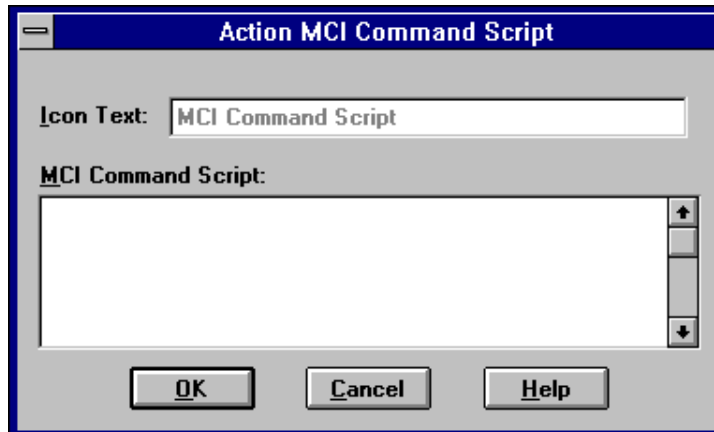
Notify When Complete

Check this box to trigger an *Action Complete* response when the application launched from this action has been closed. Thus all the actions in the task will be carried out, but the next task will not be performed until the other application has finished.

MCI Command

DELUXE

Microsoft's MultiMedia Control Interface is a general way of issuing commands to perform multimedia functions. Usually, Dazzler does all the work of using these commands for you - the Actions take care of it. However, this action is available if you want to issue MCI instructions directly from the course yourself.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

MCI Command String

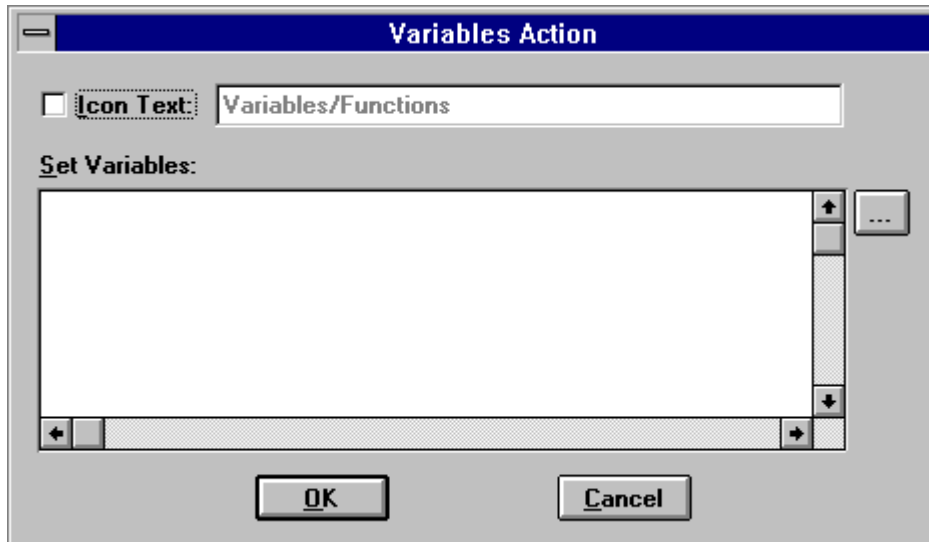
Enter the text of the MCI commands in this edit box. Refer to the relevant manufacturer's reference manual for the actual MCI commands required to control a particular piece of hardware or software. Several commands can be used within the same action - simply type them on different lines in the edit box.

Dazzler Variable values can also be used in the scripts, e.g. *{WindowHandle}*.

Variables

DELUXE

As an advanced feature, variables can store information during a course and can be used in a variety of ways. Sophisticated scoring schemes can be created by assigning different values to variables depending on which answer the student selects.




Dialog Box Options

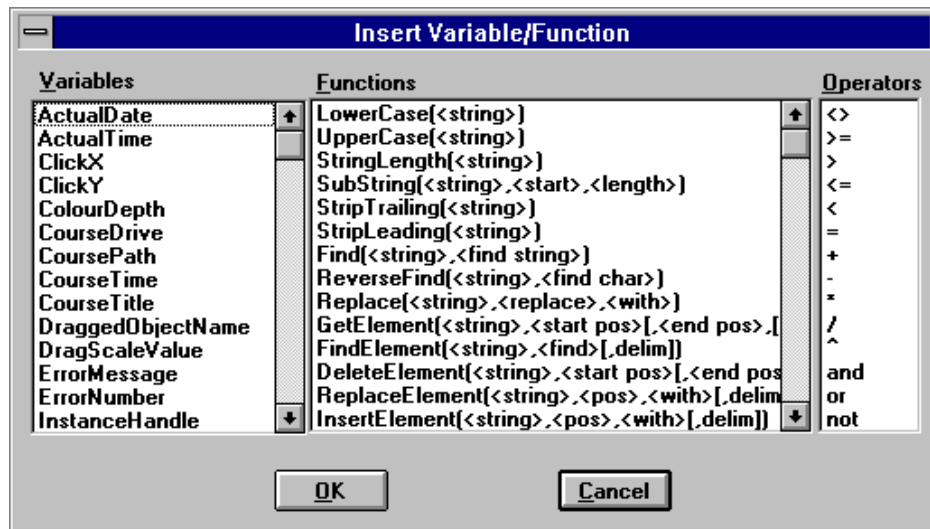
Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Set Variables

This edit box is used to enter the variable calculation. Variable names can be typed in directly or inserted from the browse button . This will show a dialog box listing all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu. Functions and operations can also be chosen from the lists in the dialog box.

Several variables can be set within the same action by putting each calculation on a different line.



In the following descriptions the terminology is as follows:

<string> refers to a text string - characters and numbers between double quotes “”,

e.g., “This is a string with numbers 123”. A variable name can also be substituted and the contents of that variable will be used. Functions themselves can also be used within functions.

<pos> is a numeric position, for example the position of the second word (“is”) in the above sentence is 2.

<delim> is a text character delimiter which divides up a string. The default delimiter is the Carriage Return (‘Enter’) character found between two lines of text. It could, however, be specified as the space “ ” character so that a sentence can be scanned.

Parameters in square brackets [] are optional.

In the following example TextVar is a *Text* variable, NumVar is *Numeric* and DateVar is an *Actual Date/Time* type variable, defined using the *Course/Variables* menu option.

The result of a function is returned for storage in a variable.

e.g.

```
TextVar = LowerCase( "This Is A Test" )
```

TextVar will contain the text "this is a test".

or, using a variable

```
TextVar1 = "This Is A Test"
```

```
TextVar = LowerCase( TextVar1 )
```

again, TextVar will contain the text "this is a test".

This function could also be used within another function:

```
TextVar1 = "This Is A Test"
```

```
TextVar = UpperCase( LowerCase( TextVar1 ) )
```

this time TextVar will contain the text "THIS IS A TEST".

Functions

Lower Case(<string>)

Converts a string to lower case characters only:

example

```
ResultVar = LowerCase( "This Is A Test" )
```

ResultVar will contain the text "this is a test".

Upper Case(<string>)

Converts a string to upper case characters only:

example

```
ResultVar = UpperCase( "This Is A Test" )
```

ResultVar will contain the text "THIS IS A TEST"

String Length(<string>)

Finds the number of characters in a string of text.

example

```
NumVar = StringLength( "This Is A Test" )
```

NumVar will contain the number 14

SubString(<string>, <start>, <end>)

Gets part of a text string. <start> is the position *before* the start of the required part and <end> is the number of characters in the SubString.

example

```
TextVar = SubString( "This Is A Test" , 5, 4 )
```

TextVar will contain "Is A"

StripTrailing(<string>)

Removes any blank spaces at the end of a text string.

```
TextVar = StripTrailing( " This Is A Test ")
```

TextVar will contain(" This Is A Test")

StripLeading(<string>)

Removes any blank spaces at the beginning of a text string.

```
TextVar = StripLeading( " This Is A Test  ")
```

TextVar will contain "This Is A Test "

Find(<string>, <find>)

Returns the position number, from the start of the text, of the <find> string when the text is searched left to right.

Example

```
NumVar = Find("This Is A Test", "Is")
```

NumVar contains the number 6.

ReverseFind(<string>, <find>)

Returns the position number, from the start of the text, of the <find> string when the text is searched right to left.

Replace(<string>, <replace>, <with>)

Replaces part of a string with another string.

Example

```
TextVar = Replace( "This Is A Test", "A", "Another" )
```

TextVar will contain "This Is Another Test".

GetElement(<string>, <start pos> [, <end pos> , [delim]])

Returns part of a string as defined by a start position and end position number when that string is divided up by a string delimiter. (n.b. the <to> and <delim> are optional - the default is the first point a carriage return is encountered)

Example 1

```
TextVar = GetElement( "This Is A Test", 2, 3, " " )
```

TextVar will contain "Is A".

Example 2

The following text file was read into a text variable TextVar1 using the Read From File action and processed:

“This is line number 1
This is line number 2”

The default settings of GetElement could be used to get the second line:

```
TextVar = GetElement( TextVar1, 2 , 2 )
```

This in turn could be processed to get the fourth word

```
TextVar = GetElement( TextVar, 4, 4, “ “ )
```

TextVar will now contain the text “number”

This could all have been combined into one expression:

```
TextVar = GetElement( GetElement( TextVar1, 2 ) , 4, 4, “ “ )
```

although there will be no noticeable increase in the speed of your course by combining expressions in this way.

FindElement(<string>, <find> [, delim])

Example

```
NumVar = FindElement( “This Is A Test”, “Is” , “ “ )
```

NumVar will now contain 2.

DeleteElement(<string>, <pos>[,to,[delim]])

Removes elements of a string based on a delimiter.

Example

```
TextVar = DeleteElement( “This Is A Test”, 1, 3, “ “ )
```

TextVar will contain “Test”

ReplaceElement(<string>,<pos>,<with>[,<delim>])

Replaces an element of a text string based on its position as defined by a delimiter.

Example

```
TextVar = ReplaceElement( "This Is A Test", 2, "Another", " " )
```

TextVar will now contain "This is Another Test"

InsertElement(<string>,<pos>,<with>[,<delim>])

Inserts a new element into a text string *before* a position defined according to a delimiter.

Example

```
TextVar = InsertElement( "This Is A Test", 4, "Further" , " " )
```

TextVar will now contain "This Is A Further Test".

ElementCount(<string>, [<delim>])

Returns the number of elements in a text string defined according to a delimiter.

Example

```
NumVar = ElementCount( "This Is A Test", " " )
```

NumVar will contain 4

Random(<max>)

Returns a number chosen randomly from 1 to <max>.

Example

```
NumVar = Random( 25 )
```

NumVar will contain a number chosen at random from 1 to 25.

Date and time functions

GetCurrentDate()

Gets the current date from the computer.

GetYear([date])

Returns the year as a number (e.g., 1995).

GetMonth([date])

Returns the month as a number (e.g., 6 for June).

GetMonthName([date])

Returns the name of the month (e.g., "July").

GetDay([date])

Returns the day of the month as a number (from 1 to 31).

GetDayName([date])

Returns the name of the day of the week (e.g., "Monday").

GetHour([time|date])

Returns the hours of the current time as a number (from 0 to 23).

GetMinutes([time|date])

Returns the minutes of the current time as a number (from 0 to 59).

GetSeconds([time|date])

Returns the seconds of the current time as a number (from 0 to 59).

ShowCursor(<1|0>)

This hides or reveals the screen cursor (usually an arrow).

0 = Hide

1 = Show

Example

ShowCursor(1)

IfThenElse(<Condition>,<CommandThen>, <CommandElse>)

Returns variable values according to a logic test of a variable expression.

Example

TestDone = IfThenElse(StudentScore >= 75, "Done" , "Not Done")

If *StudentScore* is less than 75, *TestDone* will contain the value "Not Done", otherwise it will contain "Done". (n.b., the variables used must be created using the *Course/Variables* menu first of all).

Quit(<course|application>)

Forces a course or application to end.

e.g Quit("COURSE.DZL") or Quit("Application.EXE").

PlaySound(<filename>[,wait])

This function can be used as a side effect to responses. For example, if a button has the *Set Variables* part of its set-up dialog box with the following function in it:

PlaySound("CLICK.WAV")

every time that button is pressed, the sound file will be played. This can be useful for giving the user better feedback from the interface of a course or presentation.

MciCommand(<string>[,<return string>])

This function sends commands using the Microsoft Multimedia Control Interface standard - see MCI Action for more details.

CreateDirectory(<directoy>)

Creates a new directory with the name specified

Example

CreateDirectory("C:\DAZZLER\TEST")

If the full path is not specified, the directory in which Dazzler is stored will be used as the root. Thus, if the course is saved in C:\DAZZLER\COURSES, the function CreateDirectory("TEST") would create a directory C:\DAZZLER\COURSES\TEST.

DeleteFile(<filename>)

Deletes the specified file - no "Are you sure?" message is given.

Example

DeleteFile("C:\DAZZLER\TEST\TEMP.TXT")

CopyFile(<old file>,<new file>)

Makes a copy of a file. No warning is given if <new file> already exists.

Example

CopyFile("C:\DAZZLER\TEST\TEMP.TXT" , "C:\DAZZLER\TESTING.TXT")

RenameFile(<old file>,<new file>)

Changes the name of a file. No warning is given if <new file> already exists.

Example

RenameFile("C:\DAZZLER\TEST\TEMP.TXT", "C:\DAZZLER\TESTING.TXT")

Arithmetic Functions

Abs(<x>)

Int(<x>)

Sqrt(<x>)

Mod(<x>,<y>)

RoundUp(<x>)

RoundDown(<x>)

Cos(<x>)

Sin(<x>)

Tan(<x>)

Acos(<x>)

Asin(<x>)

Atan(<x>)

Exp(<x>)

Log(<x>)

Log10(<x>)

Edit Functions

Applies to text currently highlighted in an edit box.

Copy()

Cut()

Paste()

Operators

Arithmetic can be carried out on the variables. The operators supported in Dazzler Deluxe3.0 are as follows:

Not equal to	<>
Greater than or equal to	>=
Greater than	>
Less than or equal to	<=
Less than	<
Equal to	=
Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponential	^

logic operators:

and
or

Precedence is from left to right although expressions can be associated using parentheses.

An example of a variable equation would be :

$$\text{PercentageWrong} = (\text{QuestionsWrong} / \text{NoOfQuestions}) * 100$$

Equations can be validated using the *Course/Validate* menu option.

In Dazzler 3, numeric variables can be converted to text ones by using the “=” operator as follows:

TextVar = NumVar

Text can also be joined together using the “+” operator.

TextVar = “Hello “ + “World”

TextVar will now contain the text “Hello World”

Text and numeric variables can be combined:

NumVar = 3

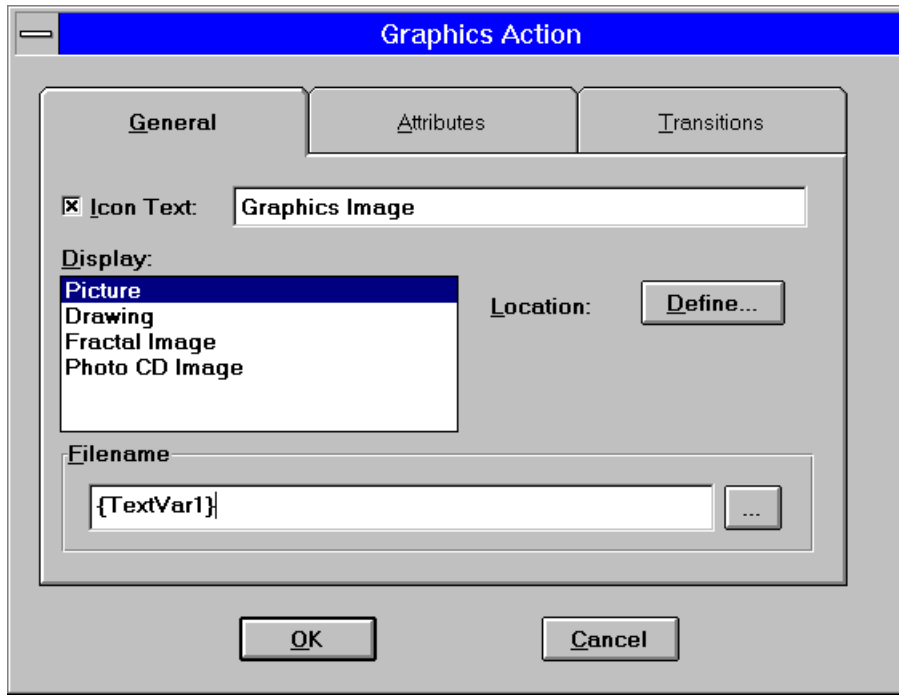
NumVar = NumVar + 1

(NumVar will now contain the number 4)

TextVar = NumVar

TextVar1 = “C:\DAZZLER\PIC” + TextVar + “.BMP”

TextVar1 will now contain the text: “C:\DAZZLER\PIC4.BMP”, which could be used as a file name {TextVar1} in the Graphics Image Action as follows:



 **ODBC**

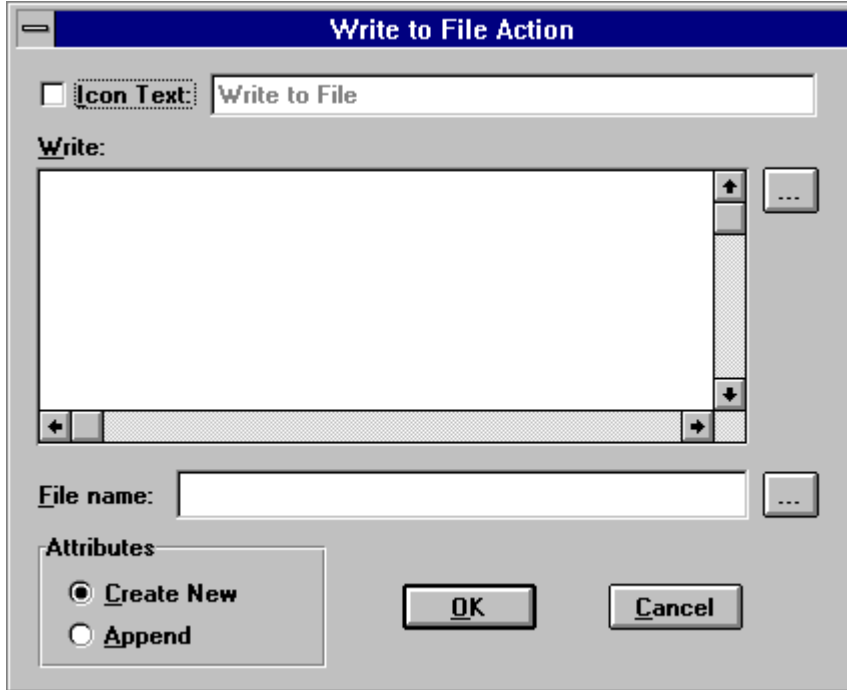
DELUXE

See Appendix B for a description of the optional ODBC Database Toolkit action.

Write to File

DELUXE

Text and variable values can be written out to a text file using the *Write to File* action for use in other applications, such as spreadsheets.



The dialog box is titled "Write to File Action". It features a blue header bar with the title. Below the header, there is a checkbox labeled "Icon Text:" followed by a text input field containing "Write to File". Underneath, the section is labeled "Write:" and contains a large, empty text area with scrollbars and a small button with three dots in the top right corner. Below the text area is a "File name:" label followed by an empty text input field and another button with three dots. At the bottom left, there is an "Attributes" section with two radio buttons: "Create New" (which is selected) and "Append". At the bottom right, there are "OK" and "Cancel" buttons.


Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Write


This edit box is used to enter the variable values to be written to the file and the format they will appear in. Variable names can be typed in directly, enclosed by {...}, or inserted

from the variables browse button  which will reveal the list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu. More than one line can be entered. The variable values can be separated by any characters: commas are useful for reading the text file produced into spreadsheets and databases. This format is known as CSV (comma-separated-variables).

Example:

{StudentName},{StudentID},{StudentScore}.

File name

Type in a file name or click the file browse button  to specify the file to be written to by the action.

Create New

If this radio button is selected, any existing data in a file with this name will be overwritten.

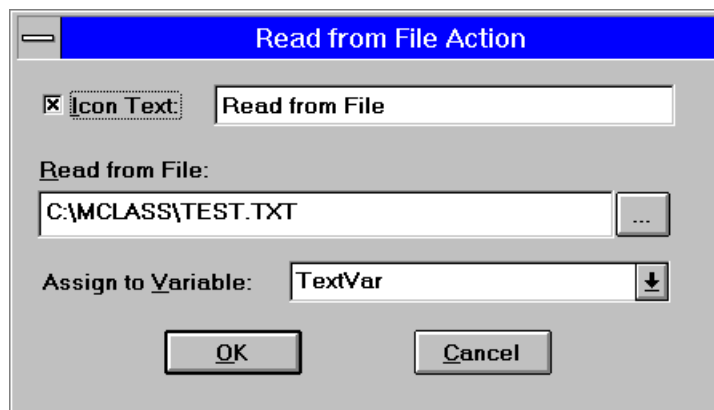
Append

If this radio button is selected, any existing data in this file will be retained and the new data added after it. In this way, scores for different parts of a course could be written to the same file.

 **Read from File**

DELUXE

Dazzler 3.1 provides a Read From File Action. Text can be read from a file and assigned to a variable. (See *GetElement* function description for details of how to extract parts of the file once its has been read).




Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Read from File

Type in a file name or click the file browse button  to specify the file to be read from the action.

Assign to Variable

The text read from the specified file can be stored in a variable for use elsewhere in the course. Click on the down-arrow which will reveal the list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu.



Simulator

DELUXE

If you have the TQC Process Simulator Link Module, available separately, you can set-up process control parameters and goals from this action and run the simulations themselves.

See the Process Simulator Link User's Guide supplied with the Process Simulator Link software.

Responses

Having let the actions build the screen to show to the student (for example, a picture with some text on it), the responses are then used to specify how the student is to respond to those actions. This can range from pressing a button on the screen to move to the next picture, through to typing answers to questions displayed. Each response is linked to another task which will be carried out when that response is activated. Buttons and hot spots can also be assigned 'right' and 'wrong' for logging student results.

A task can have several responses. The one which is carried out is the one whose conditions are met first. For example, if there is a Pause response and a User Input response attached to the same task, if the time period defined in the Pause expires before the user has pressed the correct keys, the course will branch to the task specified in the Pause response rather than the one specified in the User Input response.

'*Deluxe*' refers to features available only in Dazzler Deluxe edition.


Resulting Action

Most of the Response dialog boxes contain a section labeled *Resulting Action* - in other words, what should happen next. Here is a general description for all the dialog boxes:

Next Task

Go to the task immediately following this one.

Branch to Task Tag Number

Go to the task with a particular task number. This can be selected from a list of task numbers and their description displayed by pressing the task browse button .

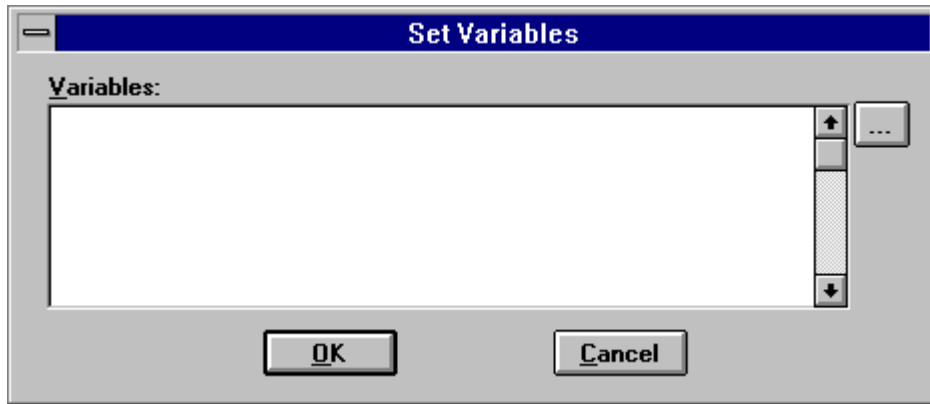
Alternatively, task linking can be done simply by clicking the **right** mouse button on the response in the Course Window and dragging the cursor onto the task to which it should be linked. Releasing the mouse will immediately create the link.

Note : Random branching. Up to 10 task tag numbers can be put in the *Branch to Task Tag Number* box, separated by commas. When the response is activated, Dazzler will select randomly from this list of tasks and branch accordingly.


Set Variables

DELUXE

Before the course branches to the task specified, variable values can be set in the same way as they can by using the *Variables* action (see above). Pressing the *Set Variables* button displays the following dialog box:



Dialog Box Options

This edit box is used to enter the variable calculation. Variable names can be typed in directly or inserted from the variables dialog box by clicking the browse button . This will show the list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu (see above), as well as the functions and operators which can be used with the variables.

Several variables can be set within the same response by putting each calculation on a different line.

You can carry out functions and arithmetic operations on the variables. See the full description of the use of variables under *Variables Action*.

Precedence is from left to right, although expressions can be associated using parentheses ()

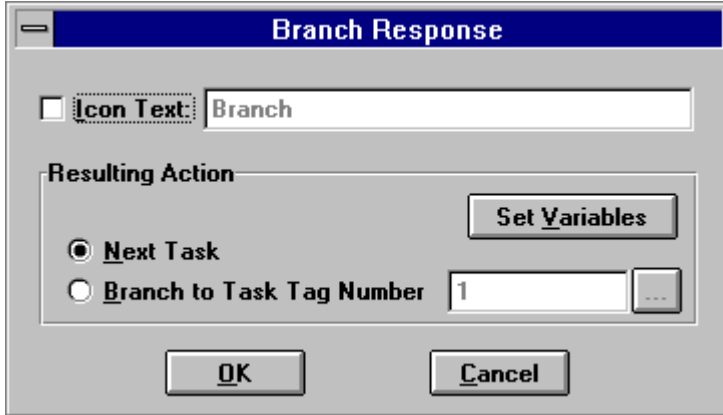
An example of a variable equation would be :

$$\mathbf{NumberOfAttempts = NumberOfAttempts + 1}$$

You can validate equations using the *Course/Validate* menu option.

 **Branch**

Use this to go immediately to another part of the course without waiting for a response from the student.



The dialog box titled "Branch Response" has a blue header bar. Below the header, there is a checkbox labeled "Icon Text:" followed by a text input field containing the word "Branch". Underneath this is a section titled "Resulting Action" containing two radio button options: "Next Task" (which is selected) and "Branch to Task Tag Number" (which is unselected). To the right of the "Branch to Task Tag Number" option is a text input field containing the number "1" and a small button with three dots. A "Set Variables" button is located to the right of the "Resulting Action" section. At the bottom of the dialog box are "OK" and "Cancel" buttons.

Dialog Box Options

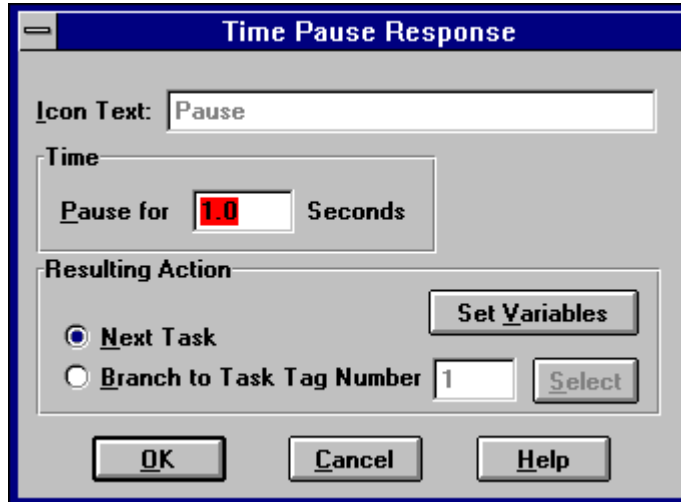
Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Resulting Action - see description above.

 **Pause**

Wait for a period of time, defined in seconds, before moving on to another task.



The dialog box is titled "Time Pause Response". It contains the following elements:

- Icon Text:** A text input field containing the word "Pause".
- Time:** A section containing a text input field with "1.0" and the label "Seconds".
- Resulting Action:** A section with two radio buttons: "Next Task" (selected) and "Branch to Task Tag Number". The "Branch to Task Tag Number" option has a text input field with "1" and a "Select" button.
- Buttons:** "Set Variables", "OK", "Cancel", and "Help".

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

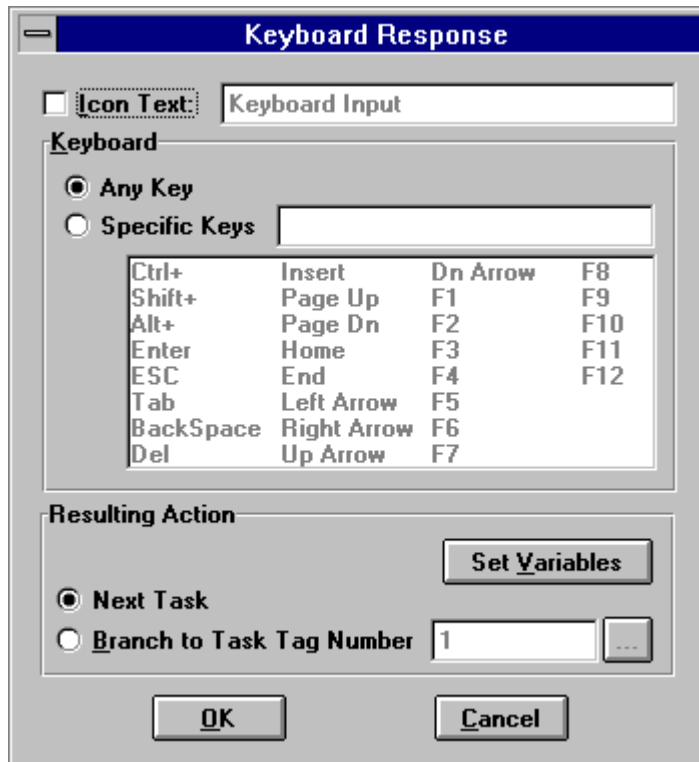
Time

Type in the amount of time to wait before moving on to the task specified in Resulting Action. The shortest time which can be specified is 0.1 seconds. A variable can be inserted here so that the length of the pause would depend on the value in the variable when the response is activated.

Resulting Action - see description above.

Keyboard Input

Wait for the student to press any, or a particular, key.



The dialog box is titled "Keyboard Response" and has a blue header bar. It contains the following elements:

- An **Icon Text** checkbox (unchecked) with a text field containing "Keyboard Input".
- A **Keyboard** section with two radio buttons:
 - Any Key** (selected)
 - Specific Keys** (unchecked) with an empty text field.
- A table of keyboard shortcuts:

Ctrl+	Insert	Dn Arrow	F8
Shift+	Page Up	F1	F9
Alt+	Page Dn	F2	F10
Enter	Home	F3	F11
ESC	End	F4	F12
Tab	Left Arrow	F5	
BackSpace	Right Arrow	F6	
Del	Up Arrow	F7	
- A **Resulting Action** section with:
 - A **Set Variables** button.
 - Next Task** (selected) radio button.
 - Branch to Task Tag Number** (unchecked) radio button with a text field containing "1" and a selection button.
- OK** and **Cancel** buttons at the bottom.

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Keyboard

Choose one of these options to specify what kind of key press to look out for:

Any Key (Default)

The response will be activated if the student presses any key on the keyboard.

Specific Keys

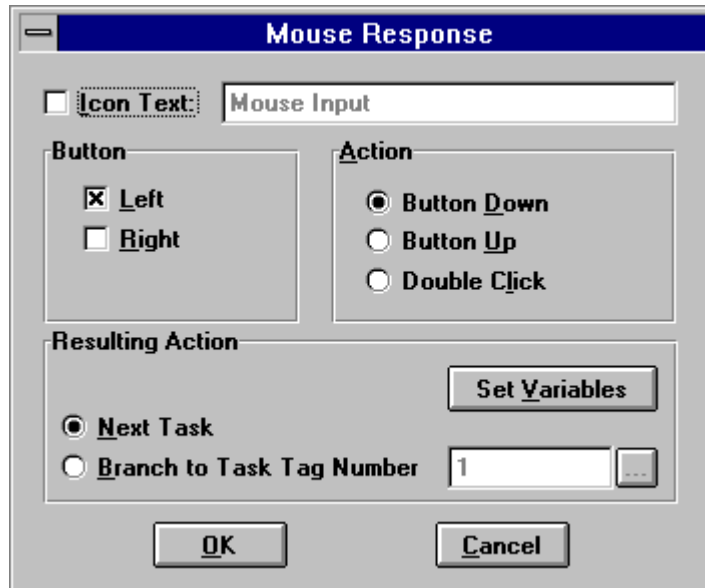
The response will only be activated if a specific key is pressed. Type a keyboard letter or number into the edit box, or click on the name in the list of special keys, such as function keys.

Note: Push Button responses can have their own keyboard processing - for example, short cut keys can be assigned to them. Care should be taken when mixing Keyboard Input responses with Push Buttons.

Resulting Action - *see description above.*

 **Mouse Input**

Wait for the student to click a mouse button.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Button

Left (Default)

Select this to detect the left button of the mouse being pressed.

Right

Check this to detect the right button of the mouse being pressed.

Action

Choose one of these options to specify what kind of mouse click will trigger the response:

Button Down (Default)

The response will be activated as soon as the user pushes the mouse button down.

Button Up

The response will not be activated until the user releases the mouse button.

Double Click

Activate the response if the student double-clicks on the mouse-button in the usual 'Windows' way (for example, when starting an application from an icon in Program Manager).

Resulting Action - see description above.

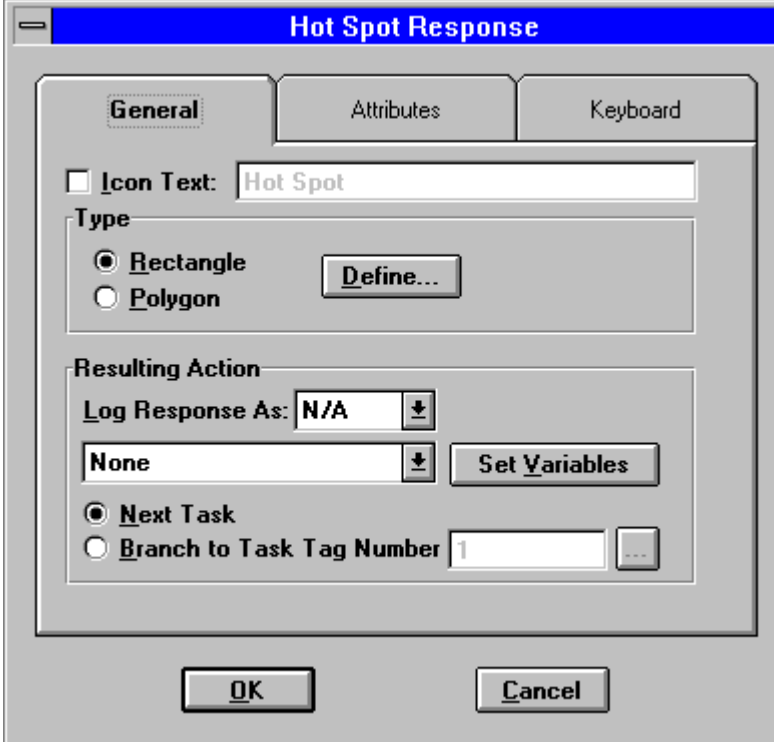


Hot Spot

Use this response to create hot spots in the Presentation Window. If the student clicks the mouse on this spot, or presses a key assigned to that region, the course will move on to the task defined in the response. This is how photographs can be made interactive, for example. Clicks in a region can be logged as 'right' or 'wrong' for student scoring.

Dialog Box Options

General



The dialog box is titled "Hot Spot Response" and has three tabs: "General", "Attributes", and "Keyboard". The "General" tab is selected. It contains the following options:

- Icon Text:** Hot Spot
- Type**
 - Rectangle**
 - Polygon**
- Resulting Action**
 - Log Response As:** N/A
 - None**
 - Next Task**
 - Branch to Task Tag Number** 1

At the bottom of the dialog box are and .

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Type

Click the *Define* button to draw an area in the Presentation Window. Once an area has been defined, the button text changes to *Modify*, allowing the size and position of the hot spot to be changed.

There are two types of hot spot that can be defined in this way:

Rectangle (default)

Clicking and dragging the cursor in the Presentation Window will create a rectangular hot spot, similar to creating a rectangle with the Graphics Shape action.

Polygon

Using this option, each click of the mouse will define a corner of a polygon hot spot in the Presentation Window. Double click the left mouse button to close the shape.

See *Creating Polygon Shapes* in the *Presentation Window* section of this manual.

Resulting Action - see description above.

Log Response As

DELUXE

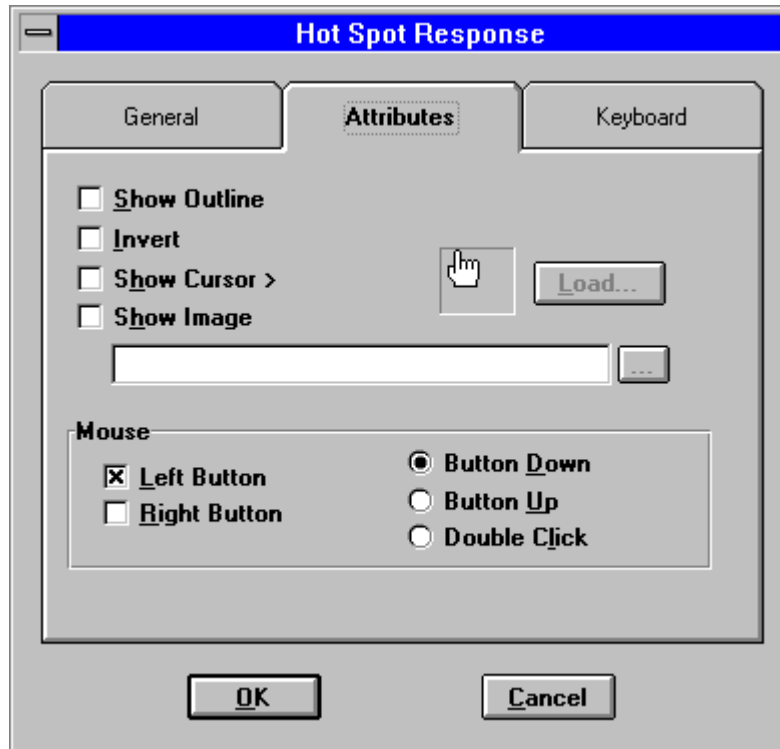
If student logging is being used (see *Course/Log File* menu option), the result to be logged can be chosen here. The options are:

N/A (Default)

Right

Wrong

Attributes



Show Outline

Check this option, once a region has been defined, to show the boundary of the region as a dotted line in the Presentation Window.

Invert

If this option is checked, as the user moves the cursor over the hot spot (without clicking), the area defined by the hot spot will change colour, showing the inverse colours of whatever picture, etc., lies behind the hot spot.

Show Cursor

Check this option, once a hot spot has been defined, to change the cursor from the standard arrow to something different whenever it is moved over the area. In this way students can be given an indication of where they can click in the Presentation Window.

The default new cursor is a pointing hand, but any .CUR file can be used by pressing the *Load...* button and browsing for the file in the usual way.

Show Image

If this option is checked, then, when the user moves the cursor over the defined hot spot, a picture will be shown at the position of the hot spot. This can again be used to emphasize the location of hot spots.

Mouse

Left (Default)

Select this to catch the left button of the mouse being pressed.

Right

Check this to catch the right button of the mouse being pressed.

Choose one of these options to specify what kind of mouse click will trigger the response:

Button Down (Default)

The response will be activated as soon as the user pushes the mouse button down.

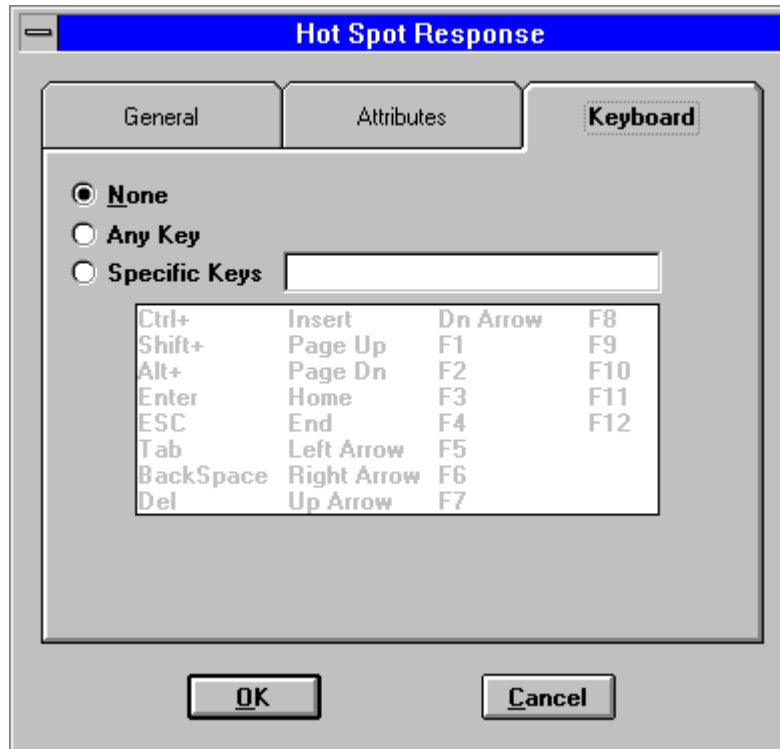
Button Up

The response will not be activated until the user releases the mouse button.

Double Click

Activate the response if the student double-clicks on the mouse button in the usual 'Windows' way (for example when starting an application from an icon in Program Manager).

Keyboard



Choose one of these options to specify what kind of key press will trigger the response:

None (Default)

Only mouse clicks in the hot spot will activate the response.

Any Key

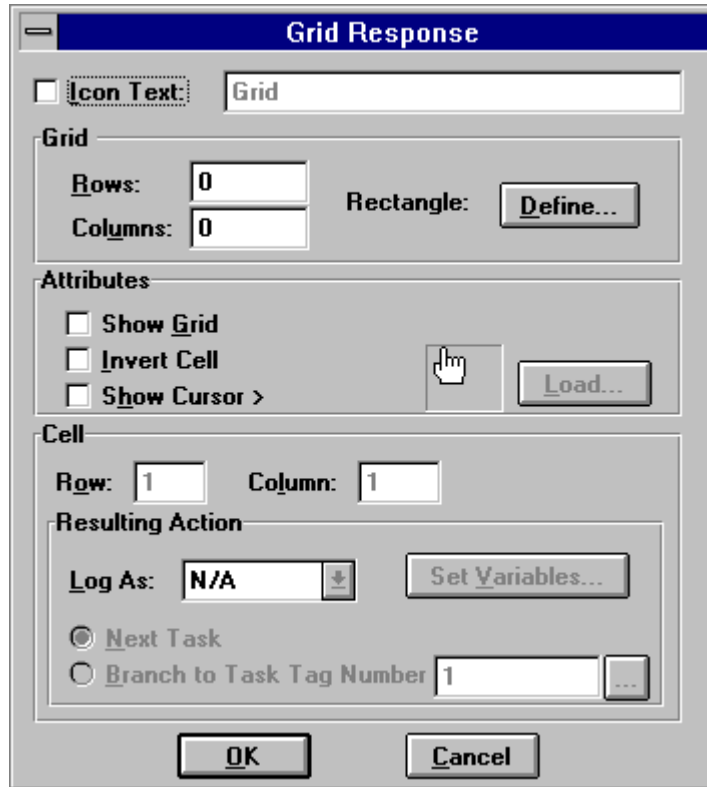
The response will be activated if the user presses any key on the keyboard.

Specific Keys

The response will only be activated if a specific key is pressed. Type a keyboard letter or number into the edit box, or click on the name in the list of special keys, such as function keys.

 **Grid**

If many hot spots are needed, for instance on top of a map, the grid response provides an easy way to do this. A rectangle can be defined and divided into a number of rows and columns. Each element of the grid, when clicked, can lead to a different task in the course.



Grid Response

Icon Text: Grid

Grid

Rows: 0 Rectangle: Define...

Columns: 0

Attributes

Show Grid

Invert Cell

Show Cursor > Load...

Cell

Row: 1 Column: 1

Resulting Action

Log As: N/A Set Variables...

Next Task

Branch to Task Tag Number 1

OK Cancel

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Grid

The options under this heading apply to the grid as a whole:

Rows

The number of rows in the grid.

Columns

The number of columns in the grid.

Rectangle

Click the *Define* button to draw a region in the Presentation Window to contain the grid. The rows and columns will be automatically scaled to fit the grid defined.

Attributes

Show Grid

Check this option, once a bounding rectangle has been defined, to show the grid as a series of dotted lines in the Presentation Window.

Invert Cell

If this option is checked, as the user moves the cursor over the grid cell (without clicking), the area defined by the hot spot will change colour, showing the inverse colours of whatever picture, etc., lies behind the hot spot.

Show Cursor

Check this option to change the cursor from the standard arrow to something different whenever it is moved over the grid. In this way students can be given an indication of where they can click in the Presentation Window. The default new cursor is a pointing hand, but any .CUR file can be used by pressing the *Load...* button and browsing for the file in the usual way.

Cell

The options under this heading refer to specific cells in the grid. The top left cell is at row 1, column 1.

Row

Select the row of a particular cell by typing in its row number.

Column

Select the column of a particular cell by typing in its row number.

Log As

DELUXE

If student logging is being used (see *Course/Log File* menu option), the result to be logged if this cell is clicked can be chosen here. The options are:

Right

Wrong

N/A (Default)

Resulting Action - see description above.



Push Button

This is one of the most commonly used responses. It places a button with text at a point on the screen. When the student presses it the course moves on to the specified task. Button pushes can also be logged as 'right' or 'wrong' for student scoring.

Dialog Box Options

General

The screenshot shows a dialog box titled "Push Button Response" with a blue header bar. It has two tabs: "General" (selected) and "Attributes".

General Tab:

- Icon Text:** Push Button
- Text**
- Picture:** C:\MCLASS\PIC1.BMP (with a browse button "...")
- Location:** Modify...
- Resulting Action:**
 - Log As:** N/A (with a dropdown arrow) and a **Set Variables** button.
 - Next Task**
 - Branch to Task Tag Number:** 1 (with a browse button "...")

At the bottom are **OK** and **Cancel** buttons.


Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Text

Type in the text to appear on the button here. Put the '&' character before any letter to be used as a shortcut key. For example, if the text on the button is "&Continue", the button will have 'Continue' written on it with the 'C' underlined, indicating that the student can press the C key (upper or lower case) to activate the button as if it had been clicked with the mouse.

Picture

Pictures can be put on buttons instead of text. Press the browse button  to find the picture to be displayed. BMP, RLE, DIB, PCX, GIF, TIF, TGA and FIF file formats are supported and pictures can be previewed in the file browser by checking the Show Preview option.

Note: the same issues relating to colour palettes apply to pictures on buttons as they do to pictures displayed through the *Graphics Image* action. The *Palette* action can be used to control the way colour palettes of picture buttons are handled.

Location

Click the *Modify...* button to change the shape and position of the button. The default 'Continue' button is positioned at the bottom centre of the Presentation Window.

Log As

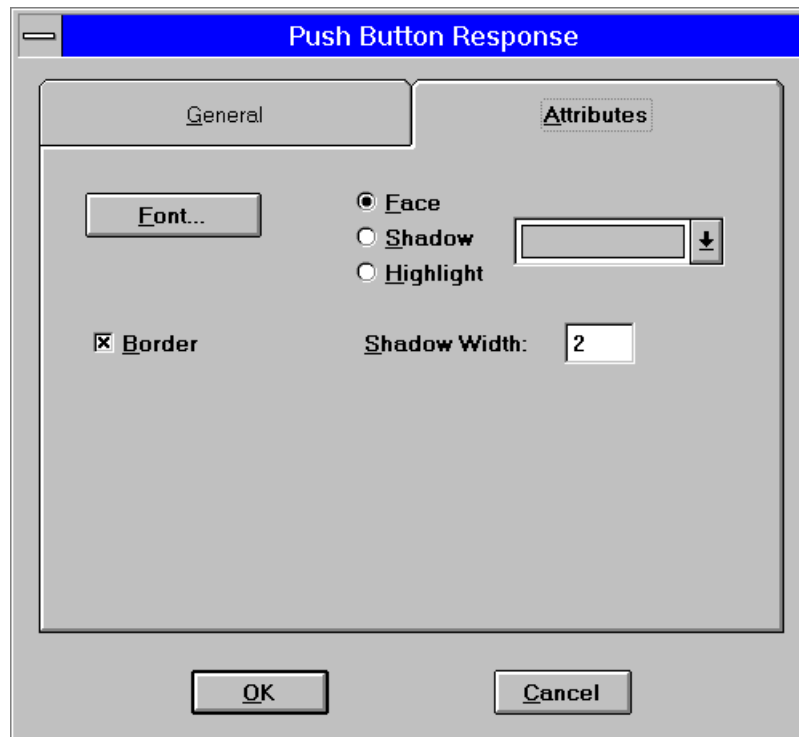
DELUXE

If student logging is being used (see *Course/Log File* menu option), the result to be logged can be chosen here. The options are:

- Right*
- Wrong*
- N/A (Default)*

Resulting Action - see description above.

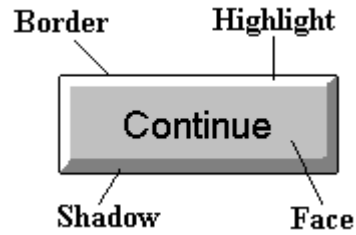
Attributes



Font

Click this button to specify in what font (size, face, colour, etc.) the text of the button will be shown.

The appearance of the button itself, its colour and depth, can be modified using the following attributes:



Face

The colour of the main part of the button. Default value is light grey.

Shadow

The colour of the right and bottom edges of the button.

Highlight

The colour of the left and top edges of the button. Default colour is white.

Shadow Width

The width of the edges of the button in pixel units. Default value is 2.

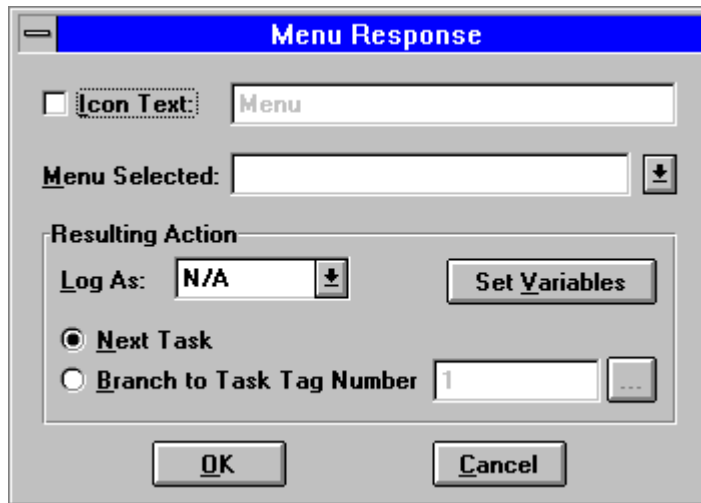
Border

Check this box to put a black border one pixel wide around the button.

Menu

DELUXE

This is a matching response to the Menu Action. When the user selects a menu option the response which has been set-up to respond to that menu item will trigger and the course will branch to the point specified in the response set-up.



Menu Response

Icon Text:

Menu Selected:

Resulting Action

Log As:

Next Task

Branch to Task Tag Number

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Menu Selected

Enter the menu item text (checking for upper and lower case) or choose the menu item which will trigger this response from the drop down list, if a menu has already been loaded into the Presentation Window.

Log As

If student logging is being used (see *Course/Log File* menu option), the result to be logged can be chosen here. The options are:

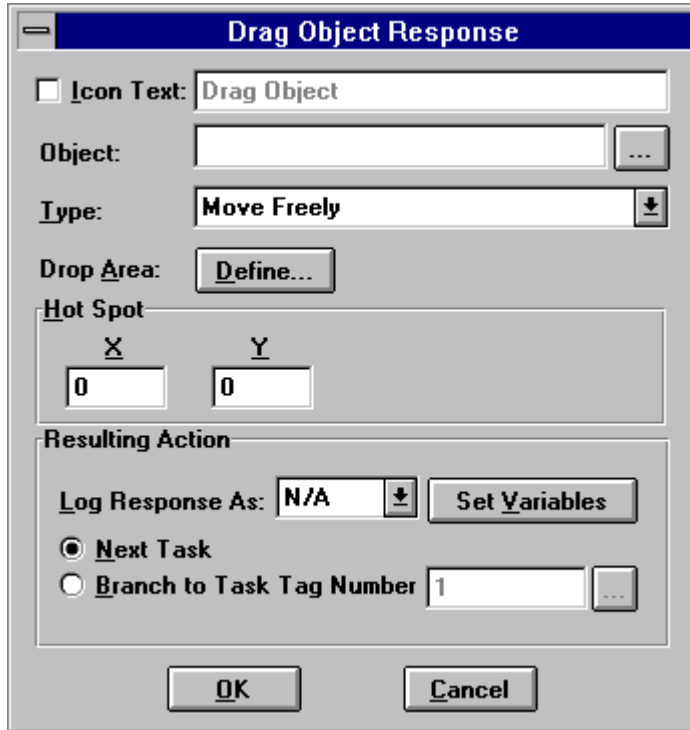
- Right*
- Wrong*
- N/A (Default)*

Resulting Action - see description above.

 **Drag Object**

DELUXE

Using this response, a *Drop Area* can be defined which will trigger the branching specified in the response. Multiple Drag Object responses can be used within one task, enabling several items on the screen to be moved around by the user.



The screenshot shows a dialog box titled "Drag Object Response". It contains the following fields and controls:

- Icon Text:** Drag Object
- Object:** [Empty text box] [...]
- Type:** Move Freely [Down arrow]
- Drop Area:** Define...
- Hot Spot:**
 - X: 0
 - Y: 0
- Resulting Action:**
 - Log Response As: N/A [Down arrow] [Set Variables]
 - Next Task
 - Branch to Task Tag Number: 1 [...]

Buttons: OK, Cancel

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Object

To use the Drag Object response, first of all select an object which the user will be able to drag, by clicking on the *Object* browse button. A list of the objects showing in the Presentation Window will be displayed. Select the object to be dragged from the list.

Note: Only objects currently loaded into the Presentation Window will be shown in the object list. Highlight the task and press *Test* to load the objects.

Type

Use this drop down combo box to choose how the user can move the object specified. The middle part of the dialog will change to reflect additional features for that option:

Move Freely

The object (picture, text, shape, etc.) can be dragged anywhere within the Presentation Window.

Additional attributes:

A *Drop Area* can be specified. Press the *Define...* button to create a rectangle in the Presentation Window. If the user releases the mouse button when the dragged object is directly on top of the drop area, the response branching will be triggered. In this way the drop area acts as an invisible hot spot, triggered by the dropping of an object rather than a click of the mouse.

Hot Spot

Dazzler uses the top left corner of the rectangle defining the dragged object as the hot spot which is used to determine if the object has been released within the *Drop Area*. To change this behaviour so that a different part of the object is used as the hot spot, enter offset values in the *X* and *Y* boxes. Positive *x* values (in pixels) move the hotspot to the right. Positive *y* values (in pixels) move the hotspot down. Variables can be used here.

Example

If an ellipse 100 pixels wide and 50 pixels high is to be dragged, the hot spot could be moved to the centre of the ellipse by making the hotspot values $X = 50$ and $Y = 25$.

Move Along Path

The object can only be dragged along a path. Press the *Define...* button to create the path in the Presentation Window. Each click of the mouse will create one point on the path. Double-click to finish the path.

Additional attributes:

Scaled Path Data attributes can be used in conjunction with the built-in variables to detect how far along the path the user released the object:

Base

specifies the numeric start point of the path (e.g. 0).

End

specifies the numeric end point of the path (e.g. 100).

If the user releases the object half way along the path, the variable *DragScaleValue* will contain the value 50, given a *Base* value of 0 and an *End* value of 100.

Valid Range

This is used to activate the response branching. Use the *From* and *To* boxes to specify whether Dazzler should log the response as right or wrong (e.g. in the above example, if the valid range is set as being from 50 to 75, releasing the dragged object from half to three quarters of the way along the path would cause a 'Right' response to be logged). Anywhere else would log a 'Wrong' response. Either one would activate the response branching to the specified task. Variables can be used here.

Move Within Rectangle

Press the *Define...* button to create a rectangle in the Presentation Window which will create a boundary for the dragged object. The user may drag it anywhere inside the rectangle, but will be unable to move it outside.

Additional attributes:

There are no additional attributes that can be specified when using the *Move Within Rectangle* option.

Log As

If student logging is being used (see *Course/Log File* menu option), the result to be logged can be chosen here. The options are:

Right
Wrong
N/A (Default)

Resulting Action - see description above.

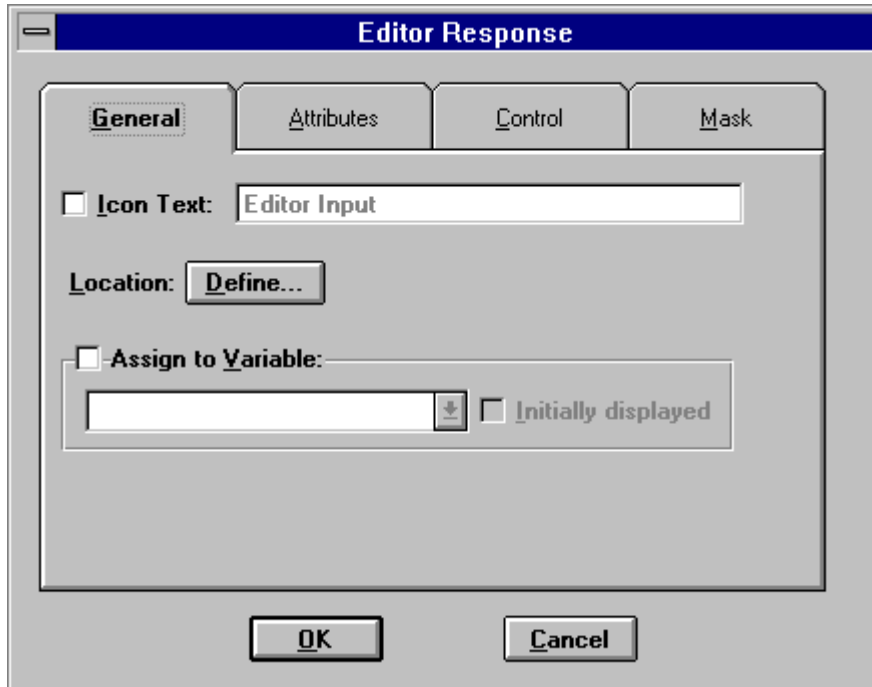
Editor Input

DELUXE

This displays a standard Windows edit box on the screen so that the student can type in answers which can be assigned to variables for later use.

Dialog Box Options

General



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Location

Click the *Define* button to draw a rectangle in the Presentation Window for the edit box.

Assign to variable

Choose a variable from the list which will be used to store the text entered into the edit box. Both built-in variables and those created through the *Course/Variables* menu item can be used.

Initially displayed

Check this option if the edit box is to be filled with the current value of the variable with which it has been associated, when it is first displayed.

Attributes

The image shows a dialog box titled "Editor Response" with a blue header bar. Below the header are four tabs: "General", "Attributes" (which is selected and highlighted), "Control", and "Mask". The "Attributes" tab contains the following controls:

- Bk Colour:** A text box with a dropdown arrow and a "Font..." button.
- Line Style:** Radio buttons for "Single line" (selected) and "Multiple line".
- Scroll Bars:** Checkboxes for "Vert Scroll Bar" and "Horiz Scroll Bar", both unchecked.
- Border:** A checked checkbox.
- Read Only:** An unchecked checkbox.
- Case Insensitive:** A dropdown menu with a downward arrow.
- Justify:** A dropdown menu set to "Left" with a justify icon.
- Initially Highlighted:** An unchecked checkbox.
- Character Limit:** A text box.

At the bottom of the dialog are "OK" and "Cancel" buttons.

Bk Colour...

Click this button to choose a fill-colour for the edit box.

Font

Click this button to specify the font (size, colour, etc.) to be used to show text typed into the edit box.

The following options in this group specify how the edit box will appear and behave:

Single Line

Multiple Line

Choose one of these options to specify whether the student is allowed to enter more than one line of text into the box.

Vertical Scroll Bar

If a multiple line edit box is chosen, check this option to show a vertical scroll bar allowing more lines of text than can fit into the box to be entered and viewed.

Horizontal Scroll Bar

If a multiple line edit box is chosen, check this option to show a horizontal scroll bar allowing longer lines of text to be entered and viewed.

Border

Check this option if the edit box is to appear with a border around it.

Read Only

Select this if you want to display the value of a variable in the edit box, but you don't want the student to be able to alter it or type anything else in.

The following options specify how the typed-in text is to be shown:

Case insensitive

Any letters typed-in will appear as a combination of upper & lower case.

Password

As letters and numbers are typed in they will just be shown as a series of '*' characters in the edit box. The full text can still be assigned to a variable, for password checking, for example.

Upper Case

Any letters typed in will automatically be converted to UPPER CASE .

Lower Case

Any letters typed in will automatically be converted to lower case.

Left Justify***Centre Justify******Right Justify***

These options specify in which way the text will appear in the edit box - aligned to the left, right or centre.

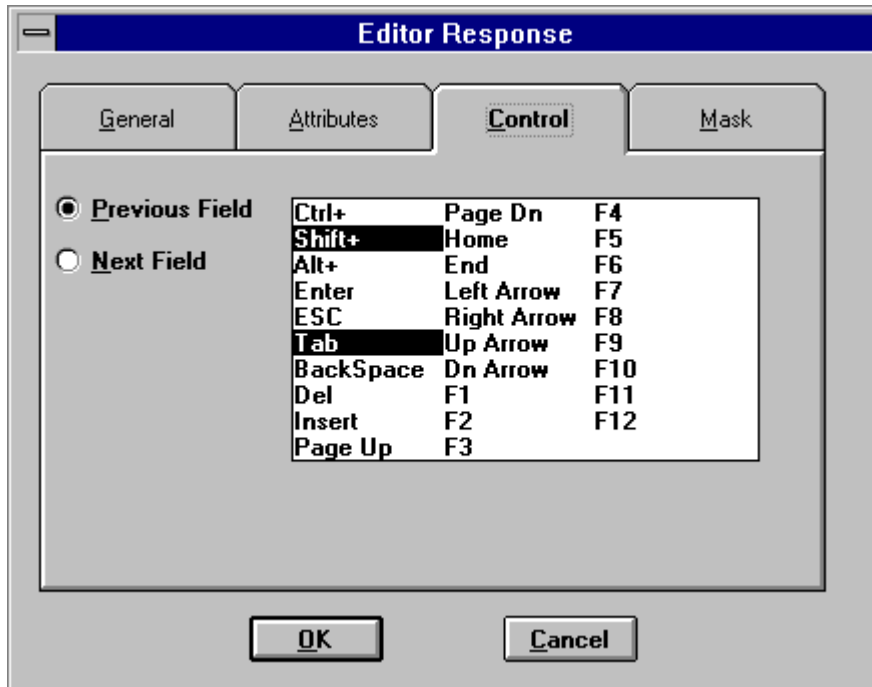
Initially Highlighted

Check this option if the text in the edit box is to be highlighted, and hence selected, when the box becomes active. Any text typed into the box will then overwrite the current contents. If this option is not checked the cursor will be placed at the beginning of the text in the edit box, but the text will not be selected.

Character Limit

Specifies the maximum number of characters (numbers or letters) which the user can type into the edit box.

Control



These options determine which keys can be used to move from one Editor response to another. This is useful for simulating the way in which various computer systems work.

Previous Field

Select the key, or combination of keys, which will move to the previous Editor Input response on the screen. To use different keys, click on one of the keys shown in the lists on the right hand side of the dialog box to select it, or click on it again to de-select it.

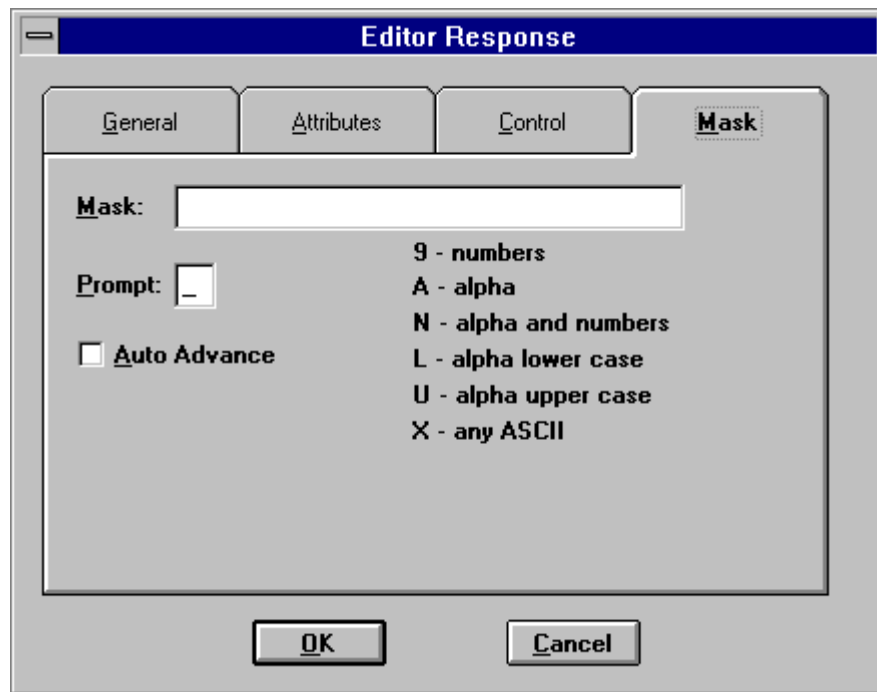
The default key combination is the *Shift + Tab* keys, as used in Windows applications. To use different keys, click on one of the keys shown in the lists on the right hand side of the dialog box to select it, or click on it again to de-select it.

Next Field

Select the key, or combination of keys, which will move to the next Editor Input response on the screen. The sequence will be in the order in which they appear in the response list, rather than a top to bottom screen sequence.

The default key is the *Tab* key, as used in Windows applications.

Mask



These attributes provide a way of imposing a template on the Editor Input response, restricting the sequence of letters and numbers which the response will accept. This provides a way of ensuring the user enters data in the correct format, for telephone numbers and codes, for example.

Mask

Enter the sequence representing the allowed input using the following codes:

- 9 - Only a number from 0 to 9 can be typed in at this point in the sequence.
- A - Only a letter can be typed, either in upper or lower case.
- N - Any letter, either in upper or lower case, or number from 0 to 9 can be typed.
- L - Only an upper case letter, such as A can be typed.
- U - Only a lower case letter, such as a can be typed.
- X - Any letter, number or special ASCII character can be typed.
- \ - Literal character e.g \N would display the letter N and not treat it as the *Any Letter* mask.

Thus a mask of *9LU* would allow the following input:

1bA , 8hE etc.,

but not:

1BA, 8He, 123, Aba, etc.

If an invalid key is pressed it will not be accepted and the cursor will remain where it is in the edit box until a valid key is pressed.

Prompt

If a character is entered in this box, then the number of characters in the mask will be shown in the edit box using this character. The default character is the underscore ‘_’. Thus if the Mask *9LU* is used, the Editor Input would appear initially with ‘___’ in the box.

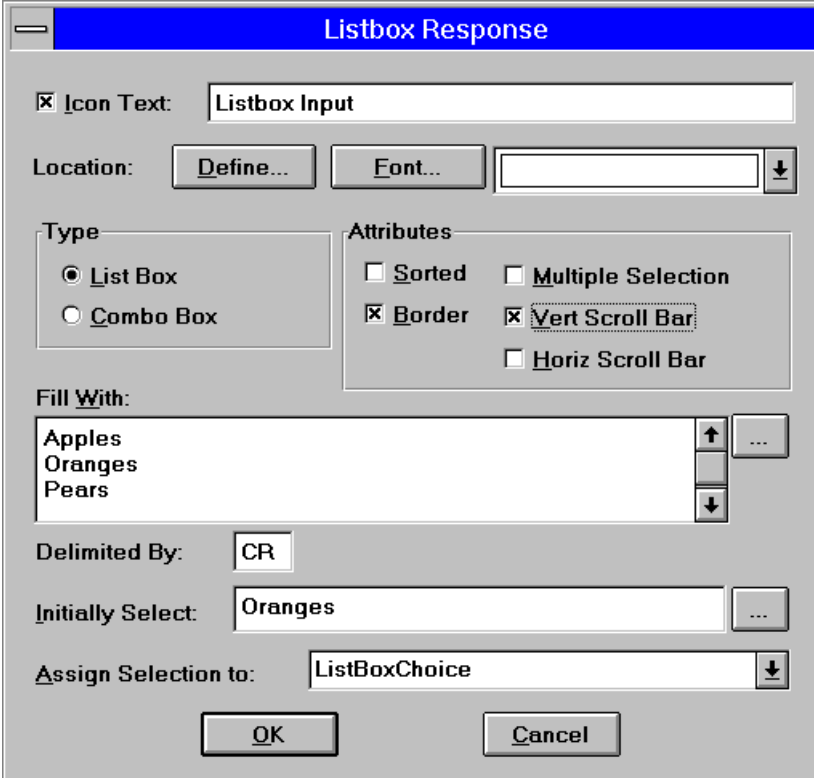
Auto Advance

If this option is checked, when a valid series of characters has been entered according to the mask specified, the cursor will automatically move to the next Editor Input response in the task ready for characters to be typed there. If it is not checked, the cursor will remain in the Editor Input box and not move to the next one until the keys specified in the *Control* settings are pressed.

Listbox Input

DELUXE

This provides a way of letting users choose from a list box or pop-down combo box. The items in the list can be specified by typing directly into the Fill With box, or by inserting variables so that the choices presented to the user can be changed dynamically. The choice made can also be stored in a variable for later use, for instance by a Conditional Branch Response.



Listbox Response

Icon Text: Listbox Input

Location: Define... Font... [Dropdown Arrow]

Type

- List Box
- Combo Box

Attributes

- Sorted
- Multiple Selection
- Border
- Vert Scroll Bar
- Horiz Scroll Bar

Fill With:

Apples
Oranges
Pears

Delimited By: CR

Initially Select: Oranges

Assign Selection to: ListBoxChoice

OK Cancel

Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Location

Click the *Define* button to draw a rectangle in the Presentation Window for the list box.

Font

Click this button to specify the font (size, colour, etc.) to be used for the entries in the list box.

Type

There are two ways to show the user the contents of the list contained in this response:

List Box

The list will fill the rectangle defined for the object. If there are more items in the list than can be fitted into the rectangle, a vertical scroll bar will appear to let the user access the whole list.

Combo Box

If space on the screen is at a premium, the combo box type will display only the current selection in a box equivalent to the height of the chosen font. A button on the right of the box will drop down the list of other items. The size of the drop down box will be restricted to the defined rectangle. If all the entries in the list cannot be fitted into this space, a vertical scroll bar will be added to allow access to the others.

Attributes

Sorted

Check this option to re-arrange the items in the list in alphabetical order rather than the order they are shown in the *Fill With* box.

Border

Check this option to show a black border of one pixel around the list of items.

Multiple Selection

Check this option to allow more than one selection to be made from the list.

Vert Scroll Bar

If all the entries in the list cannot be fitted into the defined area, a vertical scroll bar will be added if this option is checked to allow access to the others.

Horiz Scroll Bar

If some of the entries in the list are wider than the defined area, a horizontal scroll bar will be added if this option is checked to allow the whole of the text of an item to be viewed.

Fill With


This box contains the items to be shown in the list box or combo box. The entries can either be typed in, for instance:

Apples

Oranges

Pears

Alternatively, variables can be inserted so that the contents of the list box can be changed as the course runs, for instance to show the results of a database query (using the optional

ODBC toolkit). Click the browse button  to bring up the *variables* dialog box and choose from the list of built-in variables and those added through the *Course/Variables* menu item.

Delimited By:

By default, different items for the list box are shown on separate lines in the *Fill With* box. The delimiter between the items is the Carriage Return/ Enter (CR) character. There are times, however, when it is more useful to separate the items by another character, for instance a comma ‘,’ especially when using variables. Thus, the list shown above could be entered in this case as:

Apples, Oranges, Pears

Initially Select:

When the list box or combo box is first shown, no particular item in the list will be highlighted by default. Use this option to specify which entry (either text or a variable) will be shown highlighted when the task is activated.

Assign Selection to:

Choose a variable from the list which will be used to store the text of the item chosen from the listbox response. Both built-in variables and those created through the *Course/Variables* menu item can be used.

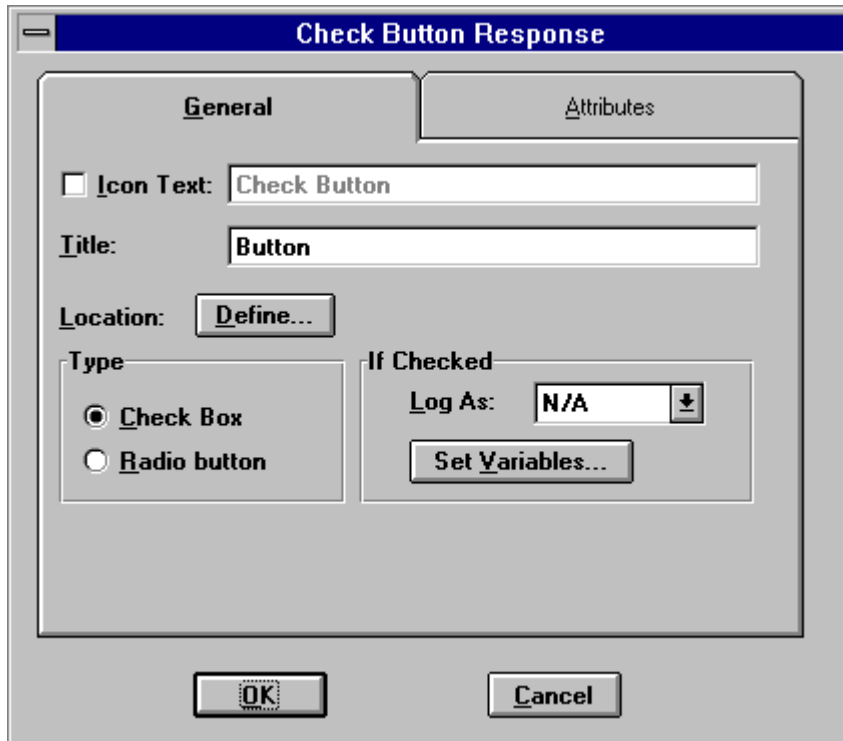
Check Button

DELUXE

Check boxes and radio buttons can be used to allow the student to select one or more possible answers.

Dialog Box Options

General



The image shows a dialog box titled "Check Button Response" with two tabs: "General" and "Attributes". The "General" tab is active and contains the following fields and controls:

- Icon Text:** Check Button
- Title:** Button
- Location:** Define...
- Type:**
 - Check Box
 - Radio button
- If Checked:**
 - Log As:** N/A
 - Set Variables...

At the bottom of the dialog box are "OK" and "Cancel" buttons.

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Title

Type in here the text which will appear next to the radio button or check box. Variables may be used here.

Location

Click the *Define* button to specify the size and position of the check box or radio button and its associated title in the Presentation Window.

Type

Choose how the object will appear and behave:

Check Box

A cross is drawn when the student clicks on the box, indicating that it is set. It is removed when clicked on again. Each check box acts independently of any others on the screen.

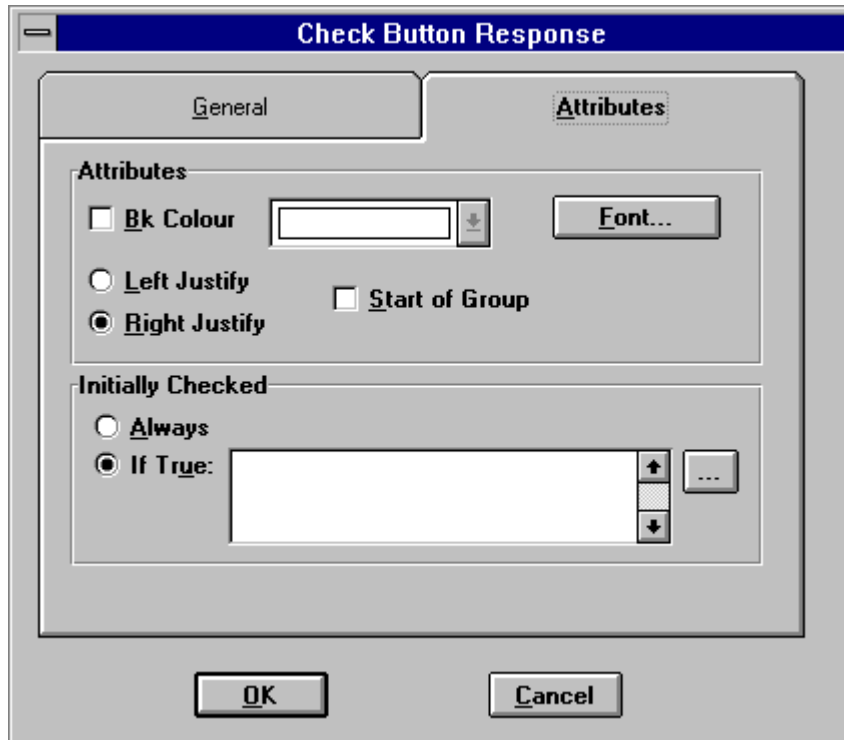
Radio Button

A circle is filled when the student clicks on it, indicating that it is set. It is unfilled when another radio button in the group is clicked on (see *Start of Group* below).

If Checked

If the check box or radio button is set when the task is completed, variable values can be altered from the *Set Variables* button - see *Resulting Action* description above.

Attributes



Bk Colour...

Click this button to choose a fill-colour for the rectangle defined for the object.

Font

Click this button to specify the font (size, colour, etc.) to be used for the object.

Right Justify

The title text will appear to the right of the radio button or check box.

Left Justify

The title text will appear to the left of the radio button or check box.

Start of Group

Select this option to begin a new radio button group, which causes all the button responses defined in the task from this point on, until the next *Start of Group*, to act together - when one is selected, all the others are deselected.


Initially Checked

The radio button or check box can be set to its 'on' state when first displayed in the Presentation Window, (although only one button in a group of radio buttons can be on at any one time). The options are:

Always

The check box or button will be on when first shown.

If True

The check box or button will only be set when first shown if the given variable expression is true. Enter the expression to test for in the edit box. Variable names can be typed in directly or inserted by using the browse button . This will display the variables dialog box showing a list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu. Functions and operators can also be used as part of the expression.

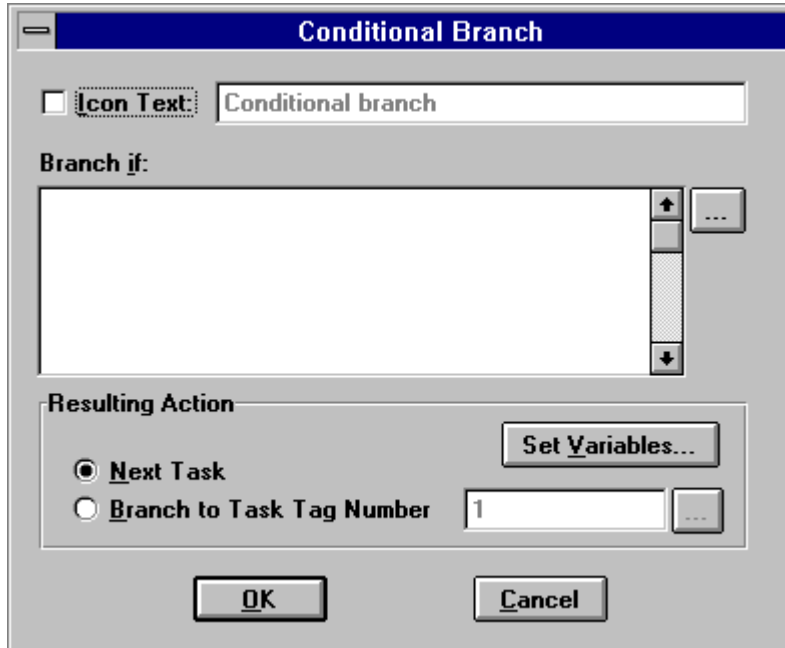
An example expression would look like this:

StudentScore > 50 and QuestionsRepeated <= 10

Conditional Branch

DELUXE

This response checks the value of variables, such as student scores, and will branch to a different part of the course if a particular expression is true. It is always checked first in a task with several responses, even if on the screen it is not shown as the first response icon.




Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Branch if

Enter the expression to test for in this edit box. Variable names can be typed in directly or by using the browse button . This will display the variables dialog box showing a list of all the variables available within the course, both the built-in ones and those added using the *Course/Variables* menu. Functions and operators can also be used as part of the expression.

Note that there is an implicit 'if' in all Conditional Branch responses so it is not necessary to type it in the expression.

An example expression would look like this:

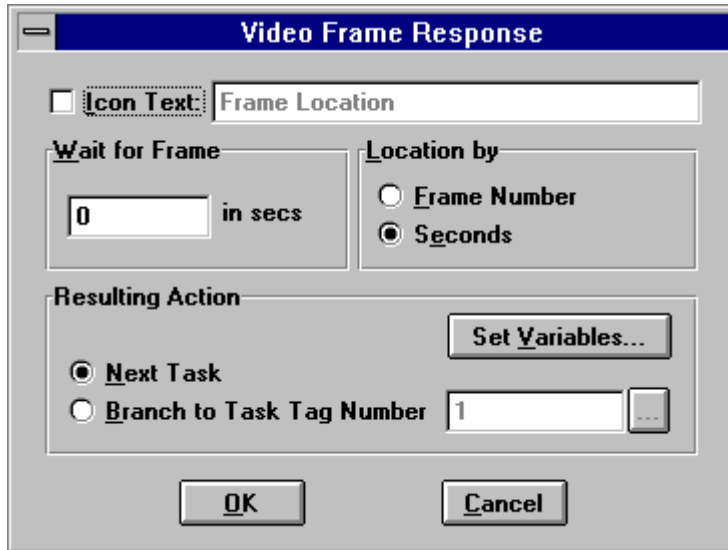
StudentScore > 50 and QuestionsRepeated <= 10

Resulting Action - see description above.

 **Frame Location**

DELUXE

This response is used in conjunction with the Tape Control action to wait for the tape or disk to reach a particular point.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Wait for Frame

Use this box to specify at which point on the tape or disk the action should activate, moving on to the task specified by *Resulting Action*.

Location by

The units used to specify the location can be chosen by these radio buttons.

Frame Number

Choose this radio button to enter locations in frames. The current location of the tape or disk is checked several times each second by Dazzler. There are 25 video frames per second generally in European video systems and 30 frames in the U.S.

Seconds

It may be easier, though less accurate, to specify locations in whole seconds. Choose this radio button for locations in seconds.

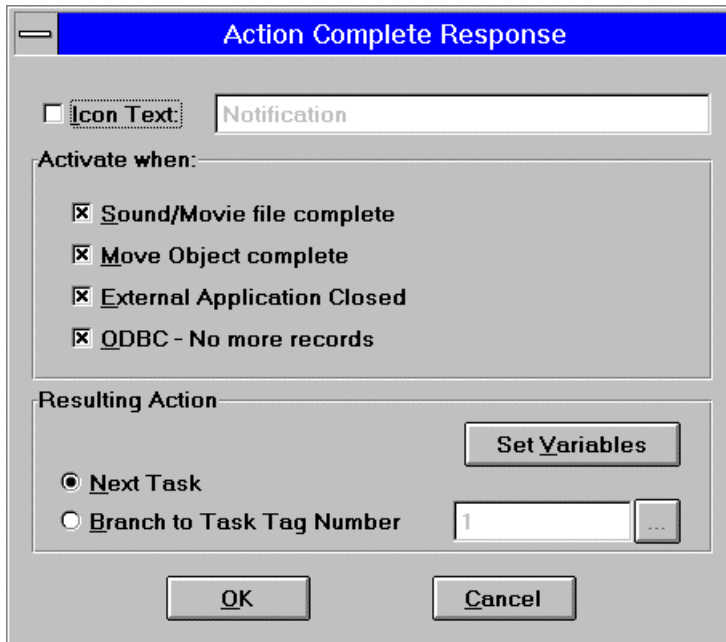
Resulting Action - see description above.

Notification

This response waits to be notified that certain actions to be completed.

Movies (both digital video clips and animations), Sound and ODBC actions can be used with this response - the next task will not be activated until the action has finished what it is doing. This response can also be combined with other responses, so the student can interrupt a video clip with a button or key rather than having to wait for it to play all the way through.

Note: this response will only be triggered if the *Notify When Complete* attribute is set in the required action.



Dialog Box Options

Icon Text

The text which will be used to label the icon in the course. It will not be seen by the student.

Sound/Movie file complete

Check this box if the response should be triggered when a Sound action or Movie File action sends notification that the playing of the sound or movie has been completed.

Move Object complete

Check this box if the response should be triggered when a Move Object action sends notification that the movement of the object has been completed.

External Application Closed

Check this box if the response should be triggered when an external application, activated with the *Launch Another Application* action, is closed.

ODBC - No more records

Check this box if the response should be triggered when the ODBC action (available with the add-on Database Toolkit) sends notification that no more records can be found, according to the current search criteria.

Resulting Action - see description above.

Appendix A

Distribution Toolkit & Course Packager

The Course Packager is supplied with the Distribution Toolkit, available separately. It is designed to take a course created in Dazzler and to gather up all its associated components, such as pictures, text, sound and video. It will then compress the information, if required, and combine it with the Dazzler run-time player files and an install program, so that all the user has to do to install the course on a machine without Dazzler is to run A:SETUP from a floppy disk or CD. The packaged course can be written directly to floppy disks, or images can be created on the hard disk for writing to CD or installing over a network.

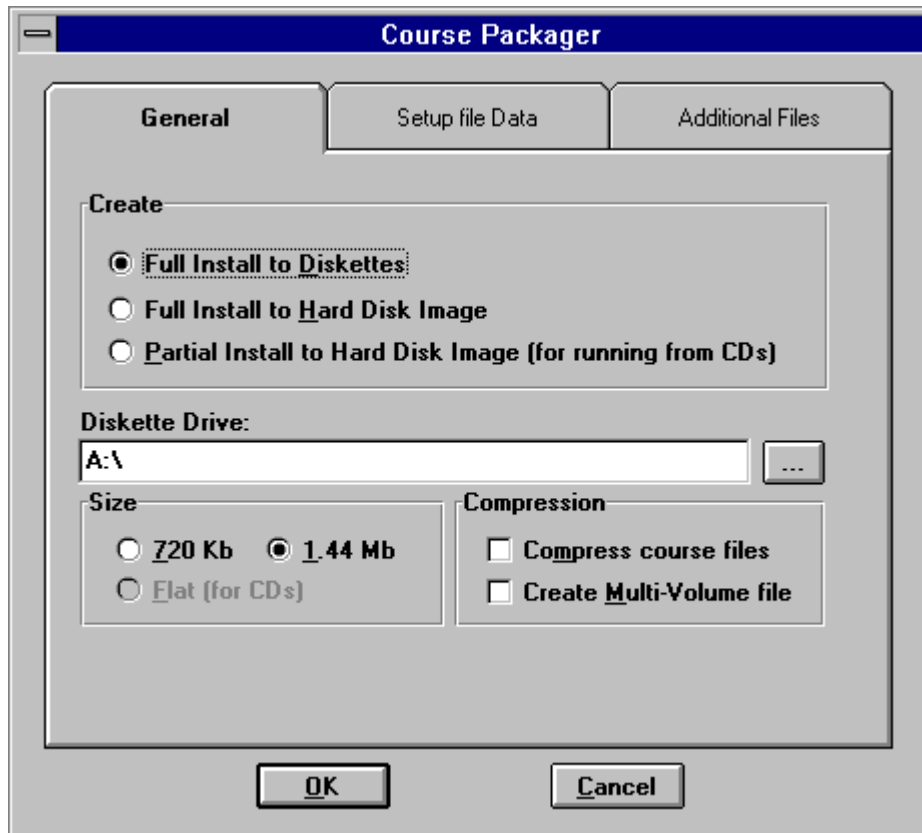
If the Distribution Toolkit software is installed, the Course Packager can be accessed from the *Package...* item in the *File* menu.

Once all the options have been chosen, click the OK button. The Message Window will then appear, giving a progress report. If all is well the message “*The current course has been packaged successfully*” will appear.

Dazzler will not only search the current course for the location of all its data, but also any other course modules which are called from the *Run Another Course* action.

Dialog Box Options

General



Create

Specifies where the Packager will write the course data.

Full Install to Diskettes

The Packager will write all information directly to floppy disks, including the course data, the installation program and the Dazzler run-time player software.


Full Install to Hard Disk Image

The Packager will write all information directly to the computer's hard disk ready for copying to floppy disk, writing to CD using a CDR system, or for installing the course over a network.

Partial Install to Hard Disk Image (for running from CDs)

Creates an image for writing to CD. The resulting installation program will copy the Dazzler run-time player to the hard disk, but all course components will remain on the CD, so in effect the course runs from the CD and not from the hard disk, thus saving space on the user's computer.

Diskette Drive / Disk Image Directory

Specifies the floppy disk drive letter to be used for the installation to diskette or the directory on the hard disk to be used for the created images. Use the browse button  to find a directory, or type in its name if you want Dazzler to create a new one for you.

Note: this is not the directory in which the original course is currently stored. Dazzler already knows about that as soon as you open the required course and choose *Package...* from the *File* menu.

Size

Choose the maximum size for the disk images. Dazzler will create several disk images if the course and all its information is larger than this limit.

720 kB

For Double-Sided Double Density disks

1.4MB

For Double-Sided High Density disks

Flat (for CDs)

Creates a single image without breaking the data down into individual images to fit on a sequence of disks. The image directory created using this option can then be used to write the data to CD using a CDR system, or it could be put on a network server for users to install over the network.

Compression

Compress course files

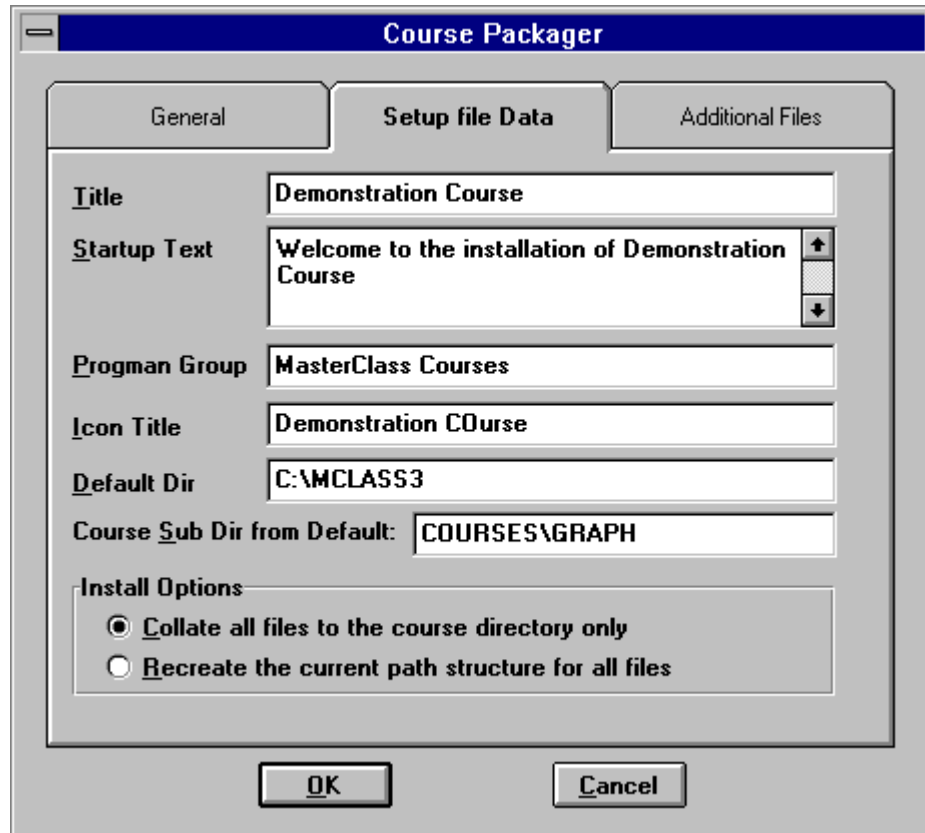
Check this option if you want Dazzler to compress all of the files used in the course - pictures, sound, etc.- as well as the .DZL Dazzler files themselves. Each file will be compressed in turn, resulting in a series of compressed files with a .ZIP file extension.

Create multi volume file

This option is only available if *Full Install to Diskettes* is chosen in the *Create* options. If this option is checked, Dazzler will prompt you to insert one diskette after another until all the course data has been written. The installation program created on the first diskette will prompt the user to insert the subsequent disks.

Setup File Data

This part of the setup determines what will happen when the packaged course is installed. It covers the messages the user will see when they type *A:SETUP* from the *Run* item in the *File* menu in Program Manager. The default settings are taken from the course itself - its title, the directory in which it is saved, etc.



Title

This is the text which will appear on the background screen when the SETUP program is run to install the course. The default is taken from the *Course Title* specified by double-clicking on the Course icon.

Startup Text

This the text which will appear on top of the course title background when the SETUP program is run to install the course. The default message is created from the *Course Title* "Welcome to the installation of <course title>"

Progman Group

This specifies in which Program Manager group the course will be installed. The default group is Dazzler Courses. If the group does not exist it will be created.

Icon Title

This specifies the text which will appear beneath the icon in the Program Manger group. Double clicking on the icon will launch the Dazzler run-time player and the course itself. The default text is the *Course Title*.

Default Dir

This specifies the directory used as the root directory for all the course information. For example, all courses, when installed, could be stored in sub-directories of DAZZLER.

Course Sub Dir from Default

This specifies the directory used to store the installed course itself.

Install Options

These options determine how Dazzler should treat the storage location of all the data used in the course.

Collate all files to the course directory only

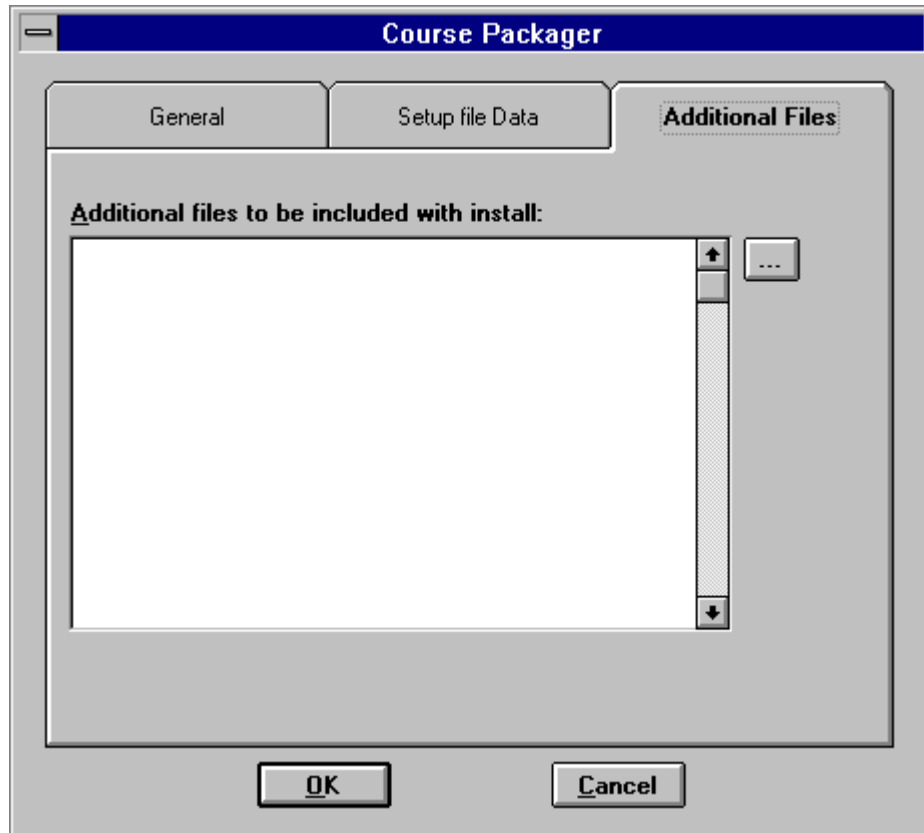
Choose this option to install all the data files from the original course into one single directory. In this way, even if all the photographs, sound and video files were originally stored in separate directories, when they are installed from the images created with the Course Packager, they will all appear in the same directory on the target computer..

Recreate the current path structure for all files


Choose this option to recreate the directory structure used to store data in the original course (e.g., Photographs in the PHOTO sub directory, sound files in the SOUND subdirectory, etc). When the course is installed from the images created

with the Course Packager, they will appear in their original sub directories on the target computer.

Additional Files



Additional files to be included with install :

Use the browse button  to find files which the packing process may not find but which will be needed by the course when it runs (e.g., files referenced by variables whose

names are only constructed as the course runs). Thus, if they are files which you know the course will need to run satisfactorily, but which the *Course/Validate* menu option would not find, include them in this list.

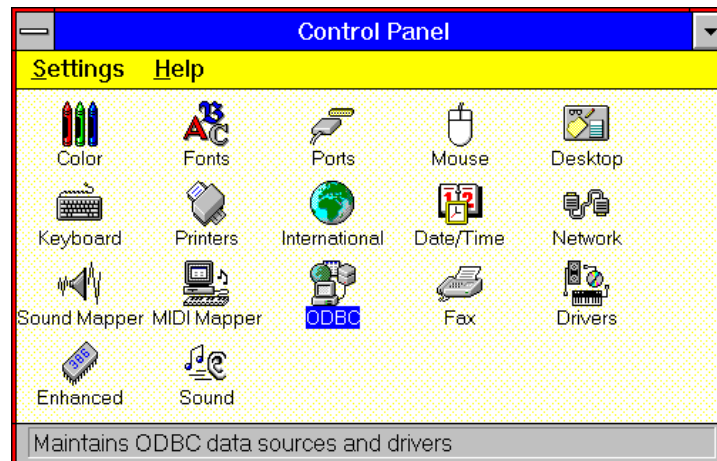
Appendix B

Database Toolkit

The optional ODBC Toolkit functions let you link a Dazzler course to any database which supports the Microsoft Open DataBase Connectivity (ODBC) standard, such as Microsoft Access and SQL Server. Numbers, text and pictures can be stored in the database and loaded into Dazzler variables for use in Dazzler actions. Product catalogues and kiosk applications are an obvious use for this optional module.

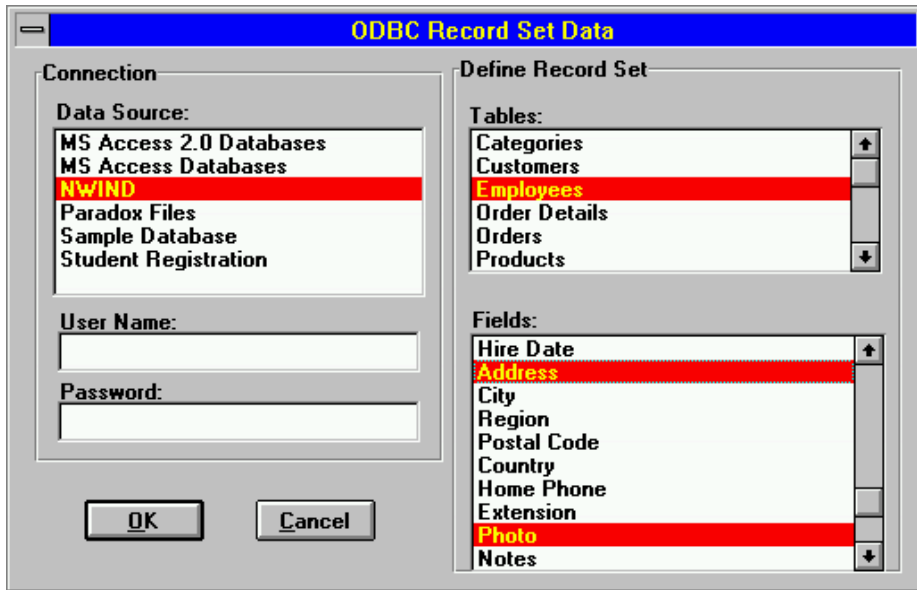
There are several steps involved in creating an ODBC database link to Dazzler 3.1:

1. Ensure that the ODBC driver for the database package you are using (such as Access) is installed on your computer and that the actual database containing your data is registered. If ODBC is installed on your computer, there should be an ODBC icon in Control Panel, in the Main group of Program Manager:

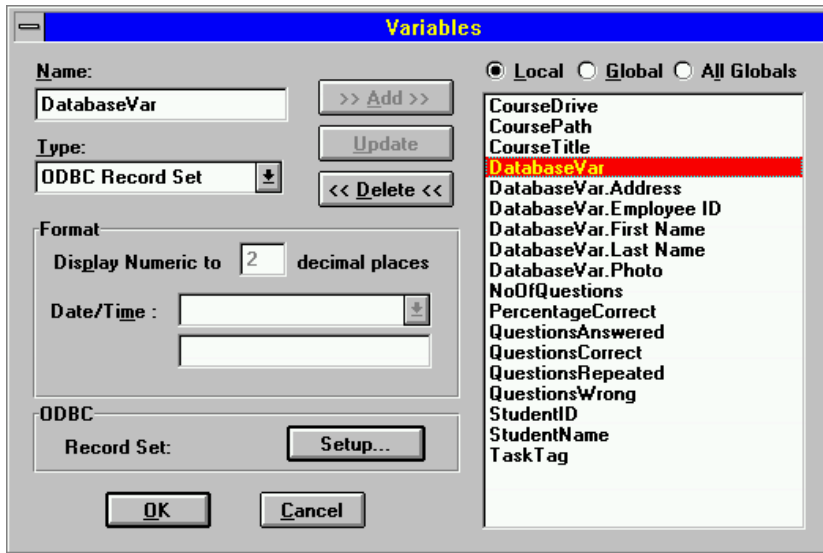


Refer to your database documentation for details on how to install ODBC drivers.

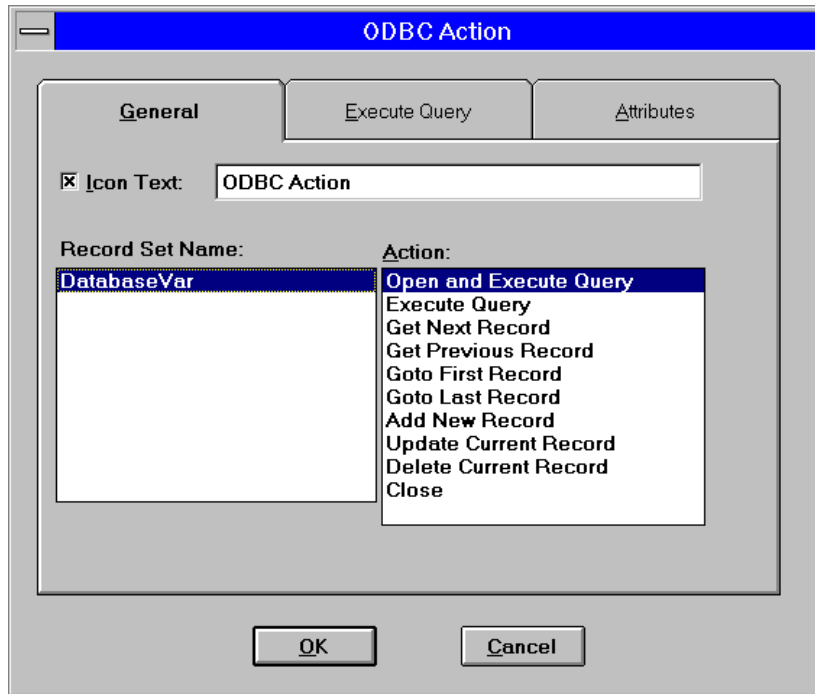
2. Create an ODBC Variable in Dazzler to store the required data from the database. Use the *Course/Variables* menu option and create a variable using the new *ODBC Record Set* type. Choose the *Setup* button to specify which particular registered database should be used and which tables and fields are needed. Dazzler will display the ODBC data sources installed on your computer together with their associated record sets when one is selected from the *Data Source* list.



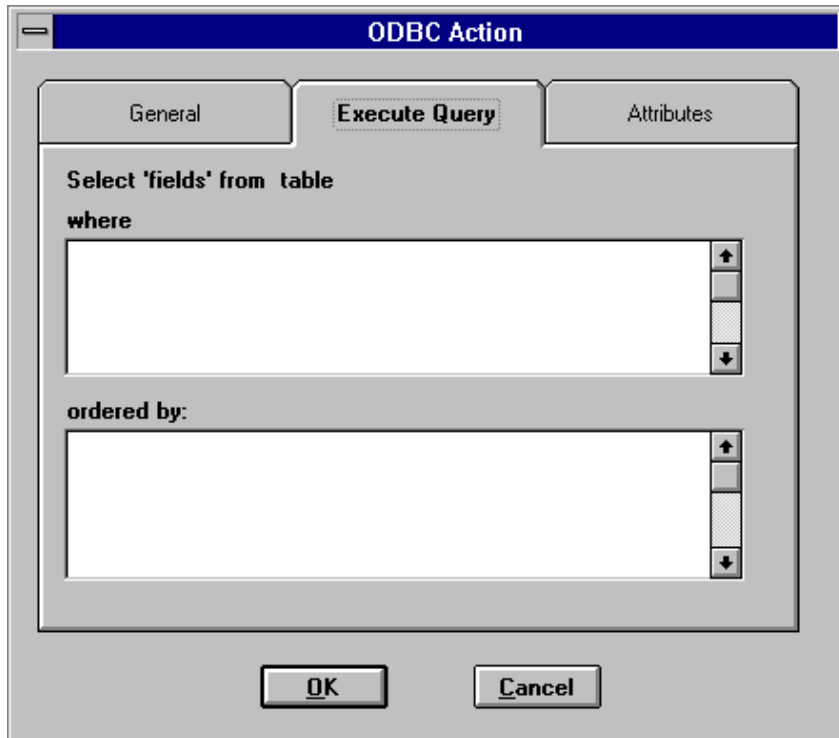
Dazzler will then automatically create variables based on the fields selected for use in a Dazzler course.



3. To get the data from the database, use the ODBC Action. The simplest way to get the first record in the database is to open using the *Open and Execute Query* option (without having to specify a query).



The other parts of the ODBC action dialog box deal with more precise control of the database:



Select fields' from table

Issue standard SQL queries. If nothing is entered, all records will be chosen.

where

the query itself

e.g PersonAge < 60

ordered by:

The order in which the records should be returned. The default is ascending order.

e.g. PersonAge



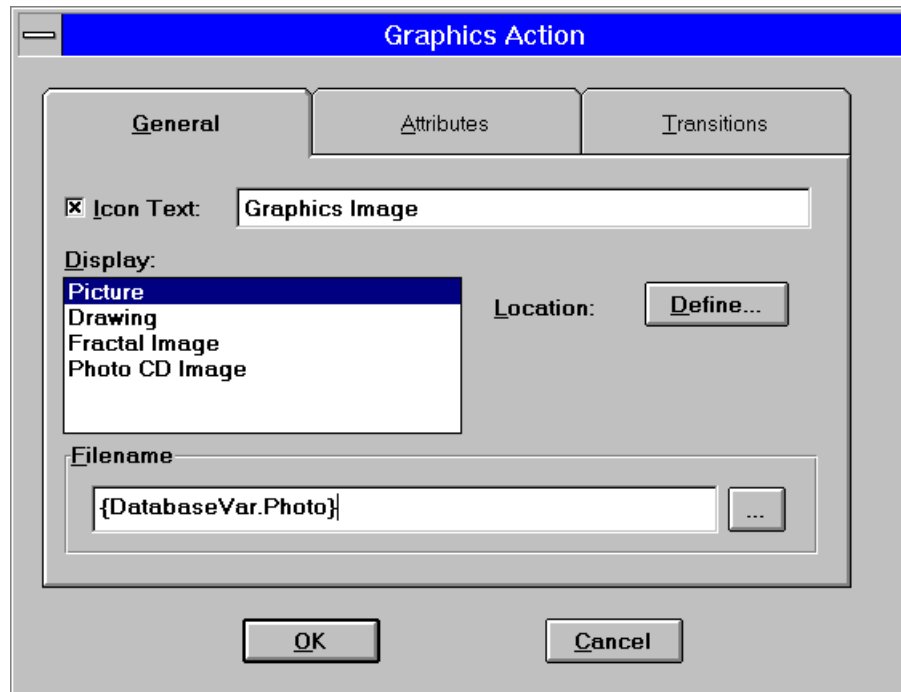
Access

Determines what Dazzler is allowed to do to the database. The options are:

- Read Only*
- Read and Add Only*
- Read, Write, Add and Delete*

When this ODBC action is executed as the course runs, the variable (in this example called *DatabaseVar*) will now contain the requested data from the fields of the first record of the chosen table.

4. Use the variables in other actions; for example, to show a photograph from the database using the Graphics Image Action, just enclose the relevant variable name in parentheses { ... }.



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