Using Text in Director

ext has always been difficult to control when creating multimedia applications. Very few fonts are identical on both the Macintosh and Windows platforms, and you have no guarantee that they are installed on the end user's computer.

Director goes a long way toward solving these problems by enabling you to embed fonts and freely distribute them with your movies. This feature assures you that the fonts you use to create your movie will display exactly as you want them to, no matter what the platform.

Director can import text and Hypertext Markup Language (HTML) documents created with other applications without losing any of the original formatting. Director even retains the hyperlinks contained in an HTML document.

This chapter teaches you how to use all of Director's texthandling capabilities, enabling you to use text and typographic design as an integral part of your movies.

Working with Text in Director

Director offers not just one way of producing text, but three. Each form has its strengths and weaknesses, and you'll probably find that the combination of all three gives you excellent flexibility while still offering you the best looking formats possible.



In This Chapter

Three different ways to create text in Director

Importing text created with other applications

Embedding fonts in your movie

Specifically, Director defines these text elements:

- ♦ *Text cast members* do the best job of displaying text. You have much more control over formatting, and you can rotate, flip, and skew them.
- Field cast members do not display as well, but they are much smaller in size. You can't rotate or skew these cast members.
- ♦ Painted text is actually a feature of the Paint window. Text created in the Paint window is unique, because it can be edited only while you are creating the text. After it has been created, it becomes a bitmap cast member, just like any other graphic created in the Paint window.

The Text cast member

Text in any program can prove to be a problem. Finding compatible fonts when creating a cross-platform movie is nearly impossible.

In addition to the contents of a block of text, Director must retain the attributes that define how the text is displayed. These text attributes are the font, size, style, and formatting. You may already be familiar with fonts, which are specific styles of text, such as those illustrated in Figure 4-1. For example, Times Roman Bold Italic is one font. Times Roman Bold is an entirely different font, although it's in the same font family.

Arial (A Sans Serif Font)

Times New Roman (A Serif Font)

Nadianne (A Script Font)

Figure 4-1: The font of a text element determines its general shape and other characteristics.

Most text attributes, such as Size, Bold, and Italic, transfer easily from one system or platform to the next. Font information, however, is system-specific. The fonts installed on your system may be entirely different from that of anyone else who will be running your movie.

You can use font mapping to create a font substitution list, but this is frequently an inadequate answer to the problem. Every font will respond differently to formatting and other attributes, such as boldface specifications. The result is that one font may take up more or less space on a page than another, and you may not wind up with the effect you want in your movie.



Font mapping is discussed in Chapter 8.

Another issue is readability. For a Director movie to be successful, the font you select must be easy to read. Allowing for random font substitution when you're transferring a movie from one system to the other can result in hard-to-read text.

Fortunately, Director solves many of these problems by using Rich Text Format (RTF) and enabling you to embed fonts in a movie. These features combine to assure you that the text used in your movie will be displayed accurately on all platforms. Font embedding can also be very useful if you are developing multimedia applications simultaneously on both the Mac and Windows operating systems.

The advantages and drawbacks of Rich Text Format

In response to these text-related issues, Director supports RTF text as its internal text format. In addition to being cross-platform, rich text has a number of useful characteristics:

- ♦ Text cast members can retain their font attributes, even if the user does not have the correct font installed on his or her system, provided that the Text cast member's font is embedded in the movie.
- ♦ The Text cast member can be antialiased (see Figure 4-2). Text can look aliased (jagged) if only the black-and-white pixels are used. Antialiasing smoothes the edges of fonts and other objects by interpolating the edges of the text or object with the objects behind it. For example, if you have black text on a white background, antialiasing applies a fine border of gray pixels to the edge of the text to smooth the appearance.



Figure 4-2: Antialiased fonts use intermediate shades of gray to soften the edges, making most fonts easier to read.

- ♦ The Text cast member can be flipped, rotated, and skewed on the Stage, either manually or with Lingo.
- ◆ A Text cast member can be scrolled, or you can limit the portion of the text information displayed onscreen at one time.
- **♦** Text created in other applications and saved as an RTF or HTML file can be imported into Director and can retain all of its original formatting.
- ♦ Unlike text created with the Paint window, Text cast members can be edited and modified at any time. Since version 7 of Director, Text cast members can also be edited via Lingo in presentation mode. Before Director 7, only Field cast members could be changed dynamically during a presentation.

Remember, however, that the obvious benefits of Rich Text cast members come at a price. Consider these factors when deciding whether Rich Text is the best text format to use:

- ♦ A Text cast member takes up about twice as much space as a Field cast member.
- ♦ Using embedded fonts can increase the overall size of the movie by 14K to 25K for each font used, which could greatly increase the download time if you're delivering Director movies over the Web as Shockwave movies.
- ♦ The Text cast members aren't well suited for animation. They take longer to render and can slow an animation sequence by a noticeable amount.

Creating a new Text cast member

You have several options for creating Text cast members. Each method of adding text to your movie has advantages that recommend it for a specific application.

You can:

- ♦ Add text directly to the Stage.
- Enter text in the text window.
- Import text created in other applications.

The Text tool in Director's Tool palette, shown in Figure 4-3, enables you to add text directly on the Stage, in the location you choose. The Text tool method of creating text is ideal when you need small amounts of text, such as a title that is precisely positioned on the Stage. When you create text using this method, you must edit the text attributes by using the Text Inspector. You will get some practice in the upcoming exercise "Using the Text Tool."



Figure 4-3: The Text tool, located in the floating Tool palette, enables you to add text directly onto the Stage.

When you need larger blocks of text, importing the text or using the Text window is a better choice. The Text window, like most word processors, enables you to format text as you create it, including applying size, style, and alignment attributes to the text. Text created in the Text window can be edited at any time to change the attributes, the formatting, or the text itself. You can edit text either on the Stage or in the Text editing window.



In the following exercise, you use the Text tool to add a title and drop shadow to the TEXT1.DIR movie. You use the Text Inspector to apply an embedded font and change the text attributes. You also use the Property Inspector to create a skewed, transparent drop shadow. You can find this file on the companion CD-ROM in the EXERCISE:CH04 (EXERCISE\CH04) folder.

Using the Text Tool

- **1.** Open the TEXT1.DIR movie in Director.
- **2.** Open the Score window, click frame 1 in sprite channel 3 to select it, and then move the Score window so that the Stage is visible.
- **3.** Open the Floating Tool Palette either by choosing Window → Tool Palette or by pressing Command+7 (Ctrl+7).
- **4.** Click the Text tool to select it. Your cursor changes to a crosshair when you move it back over the Stage.
- **5.** Click inside the colored bar near the top of the frame, about one-third of the way in from the left edge (see Figure 4-4). A text entry box appears on the Stage.
- **6.** Click the foreground color swatch near the bottom of the Tool palette and choose a light color, such as light green, as the foreground color.

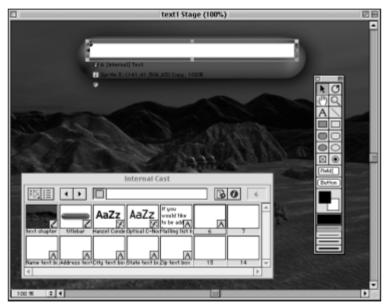


Figure 4-4: Click the Text tool on the Stage to specify an insertion point for your text.

- **7.** Type the word **Information** in the text box.
- **8.** Choose Window : Inspectors : Text or press Command+T (Ctrl+T) to display the Text Inspector (see Figure 4-5).



Figure 4-5: The Text Inspector helps you change the attributes of selected text.

- **9.** Select the text you just created by dragging in the text box to highlight the text. Alternatively, you can triple-click the text box to select all of text in the box.
- **10.** Select the font named Hanzel-Normal* from the font list in the Text Inspector. The asterisk signifies that this font has been embedded in the movie.

- **11.** Choose the point size 36 from the Font Size list box in the Text Inspector. You can also double-click the number displayed in the list box and type in the size. Then click the Align Center button.
- **12.** Click outside the text box to indicate that you've finished editing the text.
- 13. If the text is wrapping to a second line, click the text box again to display the sizing handles. Drag the right-side handle and adjust the width of the text box so that it doesn't wrap.
- **14.** In the Score, select the sprite and apply the Background Transparent Ink from the Ink pop-up menu in the Sprite toolbar.



If the Sprite toolbar is not visible in the Score window, activate it by Control+clicking (right-clicking) anywhere in the right side of the Score window (except in the sprite channel cells) and choosing the Sprite Toolbar option.

- **15.** In the Cast window, select the cast member you just created. Click in the Cast Member name field and type the words **Information title** into the field.
- **16.** Save the movie as TEXT2.DIR.

Director 8 gives you the capability to rotate, flip, and skew a text sprite, using the same techniques previously available only to bitmap and vector shape sprites. You can use these techniques to create some very interesting effects, such as having the rocket fly into position from a 90-degree rotation. In the next exercise, you create a dramatic distorted shadow by flipping and skewing a text sprite. To make the effect even more realistic, you apply a Blend setting to the sprite in order to have it appear to be transparent.

Distorting a Text Sprite

- 1. Open the TEXT2.DIR movie, if it's not already open in Director.
- **2.** In the Cast window, select the Information title member and press Command+D (Ctrl+D) to create a duplicate cast member.
- **3.** Click in the Cast Member name field and then name the duplicate cast member **Information shadow.**
- **4.** Drag the new cast member into sprite frame 1 of sprite channel 4 of the Score. Note that the new sprite, based on cast member 4 (the title text member), is centered on the Stage.

Tip

You can also place any cast member on the Stage by clicking on the box located to the left of the cast member name field and dragging it onto the Stage.

5. With the sprite still selected, choose Background Transparent from the Ink Effect pop-up menu in the Score window.

- **6.** Open the Floating Tool Palette, and then select the text in the Introduction shadow sprite. Click the foreground color swatch on the Floating Tool Palette and set the color to black.
- 7. Click on the Properties icon located in the Sprite overlay to activate the Property Inspector. Click on the Sprite tab to make the Sprite property window active (see Figure 4-6).



It's often difficult to read the information in the Sprite Overlay if you are working on a movie that uses a dark background. There are two ways to solve this problem: (a) You can adjust the opacity of the overlay by dragging the short line on the right of the overlay up or down, or (b) You can adjust the color of the text in the Sprite Overlay. This is done by choosing View

Sprite Overlay

Settings. Then select a lighter color from the color swatch located in the Settings dialog box. The color of text in the overlay might not change when you click on the OK button of the Settings dialog box. If that happens, just deselect the sprite and select it again.

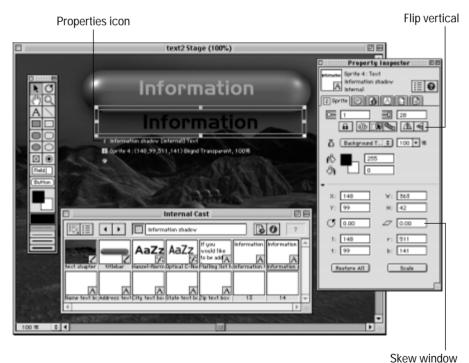


Figure 4-6: Use the Property Inspector to add effects and blends to your sprite.

8. In the Property Inspector, click the Flip vertical button, and then type -60 in the Skew window. The text will now appear to be flipped vertically and skewed to the right.



You can also apply these effects by using the Rotate tool on the Tool Palette, but you have much more control when you use the Sprite Inspector.

- **9.** Now, make the sprite transparent by selecting it on the Stage and choosing a blend of 50% from the Blend Percentage selection box.
- **10.** On the Stage, select the sprite and drag it underneath the other text sprite. You can use the arrow keys to fine-tune the placement of the sprites on the Stage. As shown in Figure 4-7, you now have a transparent shadow casting at an angle from the title.



Figure 4-7: Flipping, skewing, and applying a blend setting to text sprites can create complex shadows.

You probably noticed that the Text Inspector also contains the same alignment buttons found in most word processors for left, centered, right, and justified alignment of the text. In addition to choosing the font, size, style, and alignment of text, you can also specify the amount of leading (the space between lines) and kerning (the space between pairs of characters) in the Text Inspector.

You can also add a hyperlink reference to your text by typing the URL of a Web page to which you want to link the text, as shown in Figure 4-8. The link will not have functionality, other than highlighting, without adding some custom Lingo code or one of Director's built-in behaviors.



In Chapter 9, you apply a built-in behavior to a text sprite in order to make it an active hyperlink. Using custom Lingo to create hyperlinks is discussed in Chapter 16.

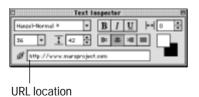


Figure 4-8: Use the Text Inspector to add a hyperlink reference to selected text by typing in the URL.

Using the Text Window

The Text window, shown in Figure 4-9, enables you to create and format blocks of text. It's actually a small word processor and contains features for formatting text as well as for applying text attributes. Although not suitable for large, multipage documents such as books, the Text window works well for creating blocks of text to use in your movies. You might require a couple of paragraphs, for example, to

describe your products or services. Because Director uses RTF as its internal text format, you can use more than one font, style, or color within a single text block, as illustrated in Figure 4-9. In addition, the Text window supports Scrapbook (Clipboard) functions, with which you can paste text from other applications into your movies.

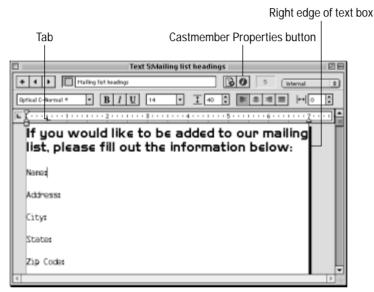


Figure 4-9: In Director's Text window, you can apply more than one font, style, color, or other attributes within a single block of text.

Tip

The active foreground color shown in the Tool palette is the color of your text. Keeping the Tool palette open while you enter text enables you to change the color of the text as you are typing by changing the foreground color.

You can edit a Text cast member at any time during the development of your movie, even while it is running. In addition to the format of the text itself, you can specify text properties that tell Director how you want to display your text. Creating a Text cast member in the Text window is a simple matter of opening the Text window and entering the text you want to use.

To open the Text window, choose Insert ⇔ Media Element ⇔ Text, or choose Window ⇔ Text (Command+6 or Ctrl+6). You can apply text attributes at any time during the editing process.

Specifying formatting options

Before entering the text you want to use, it's a good idea to prepare the Text window for the text that you're creating. By taking the time up front to specify the block size, margins, tab stops, and other formatting and font options, you can save editing time later. Table 4-1 shows the buttons and other options available in the Text window and describes how to use them.

Tip

Oftentimes it's faster and easier to format the paragraph settings of a text member by choosing Modify r Paragraph and adjusting them in the Paragraph Settings dialog box. You can also modify several text members at once by Shift-clicking them in the Cast window and opening the Paragraph Settings dialog box.

Table 1 1

Text Window Options for Text Formatting					
Button or Box	Name	Description			
Mailing list headings	Cast Member Name	Click to create an insertion point, and enter a name for your Text cast member.			
Monaco * ▼	Font	Click the arrow button to open the list box, and choose a font. This list shows the available fonts installed on your system and embedded in your movie. An asterisk (*) after the font name identifies it as an embedded font.			
В	Bold	Click to assign a bold style to your text. Keyboard shortcut: Command+ Option+B (Ctrl+Alt+B).			
1	Italic	Click to assign an italic style to your text. Keyboard shortcut: Command+Option+I (Ctrl+Alt+I).			
<u>U</u>	Underline	Click to assign underlining to your text. Keyboard shortcut: Command+ Option+U (Ctrl+Alt+U).			
14	Font Size	Click the arrow button to open the list box, and choose a preset font size, or select the entry in the box and type in a new value. Only whole numbers can be used.			

Continued

	Table 4-1 <i>(cd</i>	ontinued)	
Button or Box	Name	Description	
17 💌	Line Spacing	Specifies the amount of space between lines of text. Click the up and down arrows to increase or decrease the space. Alternatively, you can type in a new number. Only whole numbers can be used. The amount of space is determined by the chosen font size.	
=	Align Left	Click this button to align selected text to the left margin.	
畫	Align Center	Click this button to center selected text between the left and right margins.	
畫	Align Right	Click this button to align selected text to the right margin.	
	Justify	Click the button to align selected text between both margins. Space is added between words and kerning is automati- cally adjusted. All lines of a paragraph are justified by force except the last line.	
	Kerning	Kerning is a special method of adjusting the space between characters. It improves the appearance of character pairs that look better when slightly overlapped, such as A and W. It works better for larger font sizes. To adjust the space between the pairs of characters, click the up and down arrows to increase or decrease the space by an amount relative to the letter pairs. You can also type in a number.	
	Left Margin and Indent Markers	Drag the left margin marker (bottom) to adjust the left margin. Click the indent marker (top) to indent the first line of text in each paragraph by the specified amount.	

Button or Box	Name	Description
56	Right Margin	Drag the marker to adjust the right margin, and drag the right edge of the text box to adjust the width of the cast member.
	Tab Well	Click the Tab Well to display the type of tab you want to use and then click the ruler to set the tab location. You can choose from the following alignment options: left, right, center, or decimal centered.



Control-click (right-click) the ruler in the Text window to specify the unit of measurement you want to use. Choose inches (default), centimeters, or pixels.

Specifying text properties

Text has a variety of modifiable properties that determine the way the text is displayed on the Stage, its memory usage, and the type of interactivity the member will have once the movie is playing. Text properties are modified by using the Property Inspector.

Click the Cast Member Properties button in the Text window to display the Property Inspector. You may also need to click on the Text cast member properties tab to activate the window (see Figure 4-10). Using this window, you can change framing options, determine whether the cast member is editable, control the way the member will be drawn on the Stage, and set the antialiasing and kerning properties.



Figure 4-10: The Property Inspector's Text Member tab enables you to select the framing, editing, and display options, as well as the antialiasing and kerning properties.

You can view a much more detailed view of the Text cast member properties by clicking on the List View button located in the upper-right corner of the Property Inspector (see Figure 4-11). Note that several properties appear to display a series of periods. These are properties that can be set only by using Lingo. If you click on one of these fields, the property is displayed.



A Lingo property can also be displayed in a ToolTip by holding the mouse over the property field.

A good example of using Lingo to set properties is the HyperlinkState Property. This is a property you set, using Lingo, that determines the color of the Text cast member that has a hyperlink attached to it based on the viewed state of the hyperlink. If you hold the mouse over the text field next to the HyperlinkState property before clicking on a member that has an active link applied to it, the field displays the symbol #normal, indicating that the HyperlinkState has not been clicked on. When you hold the mouse over the same text field after a link has been viewed, you see that the state has changed to #visited, indicating that the HyperlinkState property has changed.

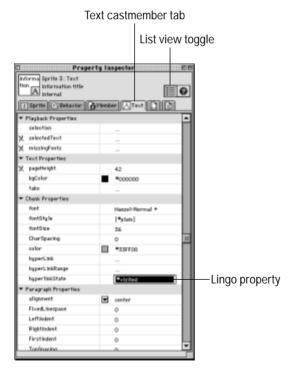


Figure 4-11: The Text cast member List View displays all of the properties that can be set for a text member, including those that can be set only by using Lingo.

Tip

Click the Lingo properties of an element in the Property Inspector to learn how a property setting is described in a Lingo script.

Framing options

The framing options determine the way that the text is displayed within the boundaries of the cast member. To select the framing options, click the arrow button and choose Adjust to Fit, Scrolling, or Fixed. Each framing option has advantages that recommend it for a particular application:

- ❖ Adjust to Fit: The default, Adjust to Fit, expands or contracts the text box to accommodate the amount of text you create. If you edit the text, it readjusts the box to the correct size. Adjust to Fit is useful if you think you want all the text visible on the Stage at one time.
- ◆ Scrolling: The Scrolling text option enables you to limit the size of the window. When the cast member is placed on the Stage, a scroll bar is added on the right side of the text window. Scrolling text is a good option when you have a limited amount of space on the Stage and you need to display large amounts of text.
- ◆ Fixed: The Fixed option keeps the original size of the text box that you created. If the text extends beyond the size of the box, it is not visible, although Director stores this text information and you can access it through Lingo. The Fixed framing option is good for titles and text that are not going to change while they are used in the movie.

Editing and display options

You can set properties to determine how the Text cast member is displayed on the Stage, and you can enable the text to be editable while the movie is playing. You can also select a property that instructs the Text cast member to use standard HTML hypertext styles if the text contains hyperlink data. These options are:

- **♦ Editable:** Checking the Editable option makes the cast member editable while the movie is playing. Use this option for creating Text cast members that require users to type in information, such as their name and address.
- ♦ Word Wrap: The Word Wrap property forces text to wrap to the width of the text box. If the Adjust to Fit framing option is applied, the text box expands to display all of the text. If the Fixed framing option is applied, the text may wrap beyond the limits of the text box so that some text is no longer visible on the Stage.
- ◆ Tab to Next Item: Checking the Tab to Next Item option detects whether the Tab key has been pressed while the text box is being edited, and advances the text insertion point to the next editable sprite that has been placed on the Stage. Select this option if you need to create a sequence of individual text boxes that require user input. Users can type their name in the first Text cast member, and then press the Tab key and automatically advance to the next Text cast member and type in their address.

- ♦ Direct to Stage: Checking the Direct to Stage option makes the Text cast member render directly to the Stage. This option is useful if you have a large block of antialiased text, because it renders the text much more quickly. Using this option, however, has two disadvantages. The cast member will appear to be in front of all the other sprites placed on the Stage, even if they are in a sprite channel that is in front of it. The only ink effect supported with this option is Copy, so you cannot hide the bounding box of the cast member.
- ♦ **Use Hypertext Styles:** Checking this option makes any hypertext links that are in the cast member appear as they would appear in a Web browser. The links are blue and underlined, and the color automatically changes to purple when the link has been visited. The default setting for this option is checked, although it has no effect on the cast member if the cast member has no hypertext links.

Tip

You can edit the properties of the Text cast member after placing it on the Stage by clicking the blue information button on the Sprite Overlay. This action opens the Text Cast Member Properties dialog box so that you can adjust the cast member's properties.

Pre-Render Settings

These settings enable Director to pre-render the text member when it is loaded into memory instead of waiting until it first appears on the Stage. This property is useful for large amounts of text that may take more time to draw on the Stage, causing an undesirable effect in your movies. Choose one of these three settings:

- **None:** Director does not pre-render the text.
- **♦ Copy Ink:** This setting pre-renders the text so that it is optimized for the Copy Ink setting. The text member will appear on the Stage with its bounding rectangle set to the background color of the member. This appearance can be undesirable if you are using a gradient or graphic background for the movie.
- ♦ Other Ink: This setting pre-renders the text so that it can be used with other Ink settings. This setting requires more memory to display the member on the Stage.

The Save Bitmap option causes Director to create a bitmap version of the Text member that is then stored in the movie. This setting is only available for the two pre-rendering options and should be used only for static, nonscrolling Text members. The Save Bitmap option is useful for large Text members that will appear more than once in a movie.

Caution

The Save Bitmap option increases the file size of the movie.

Antialiasing and kerning options

You can change the antialiasing and kerning options in the Text Cast Member Properties dialog box to apply to all text, just to text over a size that you specify, or to none of the text. If the text is smaller that 12 points, you will probably want to turn off antialiasing and kerning. Antialiased text smaller than 12 points in size can be very hard to read, and kerning has no effect on smaller type.



If you will be converting the text to a bitmap, it's a good idea to consider the background color in your movie. If you created your text on a white background and it will be displayed over any color other than white, the text will appear to have a white "halo" around it. You can turn off antialiasing, or you can assign the same the background color used for your movie to the background color of the text before you convert it to a bitmap. This can also be a problem when using the Save Bitmap option discussed in the preceding section.

Runtime editing options



Set the Enable Edit Shortcuts property in the Movie Properties section to true in order to enable the capability to cut, copy, and paste Text cast members while the movie is running.

Director 8 now has the capability to assign a property that enables Text cast members to be cut, copied, and pasted — using standard keyboard shortcuts — from one Text member to another while the movie is running from a projector or as a Shockwave application. This property called, EnableEditShortcuts, is actually located in the Movie properties section of the Property Inspector. The reason that it's a movie property is that the property needs to be applied to the entire movie, because text can be copied from one section of the movie and then pasted into another. Set the Enable Edit Shortcuts property to true by opening the Property Inspector, clicking on the Movie Tab, and then clicking the EnableEditShortcuts check box.



Clicking the EnableEditShortcuts option in the List View sets the property to true. This has the same effect as the method of setting the property discussed in the preceding paragraph.

Placing Text Cast Members in Your Movie

You place the Text cast members in a movie in the same way that you place other cast members: by dragging them from the Cast window to either the Score or the Stage. You can edit the text on the Stage by double-clicking the text sprite. You can also modify the properties of a Text cast member after it has been placed on the Stage, by clicking the Properties button located on the Sprite Overlay. In the following exercise, you place several Text cast members on the stage and then use the Align tool to left-align them.



For the next exercises, you need the TEXT3.DIR movie found on the CD-ROM, in the EXERCISE:CH04 (EXERCISE\CH04) folder.

Adding and Aligning Text Sprites

1. Open TEXT3.DIR movie in Director.



This movie picks up where you left off in the preceding exercise, except that we added a Text member and applied a frame script that enables the movie to appear to be paused. This modification will enable you to concentrate on the topics covered in this exercise.

- **2.** Open the Score window, and make sure that frame 10 (it contains a marker called place text) is visible.
- **3.** While holding down the Option (Alt) key, drag the cast member named Name text box from the Cast window to frame 10 of channel 6. Release the mouse button and the Option (Alt) key. This method causes Director to add a sprite that takes up a single frame.

Note

If the Sprite toolbar is not visible in the Score window, activate it by Control+clicking (Alt+clicking) anywhere in the right side of the Score window, except in the Sprite channel cells, and choosing the Sprite Toolbar option.

4. Repeat step 3 to place the Address text box, City text box, State text box, and Zip code text box cast members into channels 7, 8, 9, and 10, respectively, of frame 10 in the Score. When you are finished, the Score window should look like the one shown in Figure 4-12.

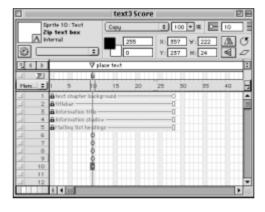


Figure 4-12: The Score window with the sprites inserted in frame 10.

5. Press Command+1 (Ctrl+1) to bring the Stage to the front. You may be wondering why there aren't four cast members on the stage. They are actually all there; Director has placed all four of the sprites from step 4 on top of each other, so you can see only the sprite that is in channel 10.

- **6.** Drag the sprite so that it is parallel with the Zip code heading. Don't worry about the spacing between the heading and the text box; you adjust that later.
- 7. Click the next sprite it's in exactly the same place as the sprite in channel 10 was before you repositioned it. In the Sprite Overlay box, you see that it is the cast member called State text box. Drag the sprite so that it's parallel to the State heading.
- **8.** Repeat Step 7 for the other three sprites: City text box, Address text box, and Name text box. Be careful to make sure that they line up with the correct headings.
- **9.** Position the sprite in channel 6 (the Name text box sprite) so that there is a visually pleasing amount of space between it and the Name heading.
- **10.** Shift+click the other text box sprites to select them all, and then choose Modify ⇔ Align, or press Command+K (Ctrl+K), to activate the Align tool shown in Figure 4-13.

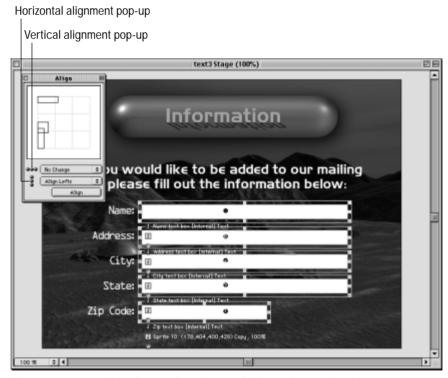


Figure 4-13: Use the Align tool to align multiple sprites on the Stage.

- **11.** Choose Align Lefts from the Horizontal Align pop-up menu and press the Align button. All of the text box sprites are now left-aligned to the position of the first sprite that you selected.
- **12.** Save the movie as TEXT4.DIR

Tip

You can use the arrow keys to *nudge* sprites one pixel at a time on the Stage.

Oftentimes when you are using text in a movie, you will want users to create it. A good example of this are the text boxes that you just placed into the movie in the preceding exercise. Those text boxes are designed to have the user type in information that can then be captured in order to send the user more information. Using Lingo, it's possible to extract text from a cast member and store it in an external file that can be used by other applications, such as Excel or Microsoft Access.

Cross-Reference Using Lingo to manipulate text is discussed in Chapter 16.

In the next exercise, you add interactivity to the text you just placed in your movie. To do this, you modify the properties of text box cast members to enable a user to type in information and tab to the next cast member. Also, you set the Enable Edit Shortcuts to true so that the text can be cut, copied, and pasted between the sprites.

Adding Interactivity to Your Text

- 1. Open the TEXT4.DIR movie in Director, if it's not already open.
- **2.** Select the text box sprites in channels 6 through 10 that you placed on the Stage in the last exercise, by Shift+clicking them on the Stage or in the Score window.
- **3.** Open the Property Inspector by pressing Command+Option+S (Ctrl+Alt+S). Click on the Text member tab and enable the editable and autoTab properties. In List View, this updates the property listing to true, as shown in Figure 4-14.

Note

If the Property Inspector is in Normal View, the properties are labeled Editable and Tab to Next Editable Item.

- **4.** In the Property Inspector, click on the Movie properties tab and choose the EnableEditShortcuts property. This property enables you to cut, copy, and paste editable text while the movie is playing.
- **5.** Save the movie as TEXT5.DIR and play it back. Type information into the text fields and try cutting, copying, pasting, and undoing the text, using the standard keyboard shortcuts for each operation.

The capability to cut, copy, paste, and undo text in a cast member adds one more way to make your Director movies behave similarly to most other applications that are on your computer. It also opens up the possibility of using text in games that you create. For example, you could build a treasure hunt game where users find a piece of text in one section of the movie and paste it into a collection area in another section.



Figure 4-14: Setting the autoTab and editable interaction properties of the text members in the Property Inspector's List View

There is one more type of text element that you can use in Director, called a Text Field member. The next section describes Text Field elements and how best to use them in your movies.

Text Field Cast Members

Text Field members differ from RTF Text cast members in that they cannot be antialiased. Originally, Text Field members were your only choice if you wanted to create editable text sprites. Although that is no longer true, there are other reasons to use Text Field members in your movies. Text Field members have smaller file sizes and contain formatting options that are not available to RTF Text members.



If you are *not* using an embedded font for a Text Field cast member, the font you use may get substituted for another one on different platforms. It's a good idea to use a font map (see Chapter 8) to assign equivalent fonts between the Macintosh and Windows platforms.

Creating a Text Field Cast Member

- 1. Open the Floating Tool palette by choosing Window → Tool Palette (Command+7 or Ctrl+7).
- **2.** Click the Text Field button (shown in Figure 4-15), draw a rectangle on the Stage the size that you want the field to be, and type the text into the window.

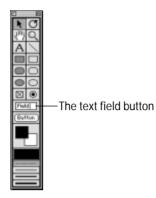


Figure 4-15: The Text Field button, located on the Floating Tool palette, enables you to add Text Field cast members directly on the Stage.

3. With the Text Field cast member selected, you can add a border, adjust the margins, and add a drop shadow to the text and text box by setting these parameters in the Property Inspector's Text Field window.



Activate the Property Inspector by clicking on the Properties button located in the Sprite Overlay.

- **4.** Adjust the foreground and background colors of the cast member by double-clicking the member and selecting the colors from the Floating Tool palette.
- **5.** Double-click the cast member in the Cast window, shown in Figure 4-16, to active the Text Field editing window. In this window, you edit the text as well as set the font, size, text style, name, and size of the cast member. Click the Script button to apply a Lingo script to the member. The Properties button opens the Property Inspector, enabling you to set the cast member's properties.

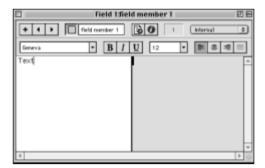


Figure 4-16: Use the Text Field window to modify text, change the font and style, apply a Lingo script, and access the Property Inspector to set the field member's properties.

Specifying Text Field properties

After creating and formatting the Text Field cast member, you can specify the cast member's properties by setting the properties in the Property Inspector. After activating the Property Inspector, click the Field tab. You can set the following properties, using either the Normal View or the List View, as shown in Figure 4-17.



Figure 4-17: The List View mode provides a much more detailed description of the member's properties.

Text Field cast member framing options

You select the framing options by clicking the arrow button located below the Framing options in the Normal View and then choosing either Adjust to Fit, Scrolling, Fixed, or Limit to Field Size. Choosing an option from the boxType property in the List View mode sets the framing property.

The Adjust to Fit, Scrolling, and Fixed options work exactly the same as Text cast member properties. The Limit to Field Size option works in a way similar to the Fixed size option, except that any text extending beyond the Text Field cast member's text box is ignored.

Text Field cast member editing and display options

You select the editing and display options you want by clicking the check boxes next to each option. You can choose from among these options: Editable, Word Wrap, and Tab to Next Item. The Editable and Tab to Next Item options work the same way as they do for the Text cast member properties.

The Word Wrap option, whose default setting is on, enables text to drop down to the next line if it will extend beyond the right edge of the cast member's text box. If this option is turned off, text that extends beyond the right edge of the text box will not be visible.

Select from among these display options: Text Drop Shadow, the text field's Bounding Box Drop Shadow, Border, and Text Margin.



The Drop Shadow, Border, and Margin options are displayed quite differently, depending on the view chosen to display the properties in the Property Inspector. In Normal View mode, they are listed as a series of icons in the second pane of the window. In List View mode, the properties are listed by the name that Lingo uses to refer to the properties.

Importing Text from Other Sources

The Text window, although adequate for creating blocks of text for your movies, is not nearly as robust as full-featured word processors such as Microsoft Word and ClarisWorks. These powerful programs contain essential formatting features not found in the Text window. In addition, they frequently support RTF text, which can be imported into Director with its formatting intact.



When Director imports an RTF file, it creates a separate cast member each time it detects a page break. You can take advantage of this feature by creating all the text for your movie in a single word processor document, and then force a page break for each new cast member that you want to create.

Director also recognizes ASCII text files (called *plain text*) that contain no formatting instructions beyond tabs and carriage returns. Every word processor and most spreadsheet and database applications can create a plain-text document.



If images are embedded in an RTF document, Director will not import them.

Director also supports HTML formatted text. Director recognizes standard HTML formatting tags, such as <P> (paragraph), (bold), and <I> (italic), which are used to lay out the document. Director does not recognize embedded objects other than tables. Director ignores the following features found in HTML documents: images, frames, input fields, and embedded applets. HTML documents can be imported locally or from the Web.



Make sure you are using HTML text from a Web server that you know will always be online. Otherwise, the text in the linked cast member may not appear in your movie.

If you select the Link to File option when importing an HTML document that is located on a Web server, the linked cast member in Director will automatically update when the source page on the Web server is updated, provided that the user has a working Internet connection when they play the movie.

Note

The user does not have go to the actual Web page for this to occur.

Authors can now use external linked scripts that can be updated separately by another author. This is a very useful feature when working on large-scale Director projects that involve multiple programmers and authors. The supported file extensions for scripts are .txt or .ls, Director's internal file extension for linked scripts. A linked script is updated only during the authoring stage of the movie's development. A copy of the script is stored in the movie when it is output as a Projector or Shockwave file, thus avoiding the need to distribute the scripts with your movies.



Director 8 now has the capability to import and link to external Lingo scripts.

You import text files just as you do any other type of element, by choosing File □ Import, selecting the files that you want to import, and setting the options, such as linking.



Director's Import operations are discussed in detail in Chapter 2.

Embedding Fonts in Your Movie

The best way to deal with the cross-platform font problems is to embed the desired fonts directly in your movie. When you embed a font in your movie, Director stores all of the font information so that the font can be displayed even if it is not installed on the user's system. Embedded fonts appear in the Cast window, just like any other cast member, and are accessible from all of Director's font menus. All of the text members you used in this chapter have had embedded fonts applied to them; the fonts appear on the Windows operating system the same way they appear on the Macintosh operating system that was used to create the movies for this book.

Director compresses the fonts, which means that they will increase the size of your movie by an average of 15K to 25K. If file size is a concern, you can include just the characters used for the text. This option is useful if you are developing movies that will be played back over the Web. You can also include bitmap versions of the font for displaying text at sizes smaller than 12 points, where antialiasing can have a negative effect on the text.

Note

There are no legal issues involved with distributing fonts that you embed in your movie, because they are available only to the movie itself and cannot be used in any other application.

Embedding a font

It's a good idea to embed the fonts that you want to use in your movie before creating Text cast members that use them:

1. Choose Insert → Media Element → Font. In the Font Cast Member Properties dialog box that appears (see Figure 4-18), you can choose a font, select bold and italic versions of the font, and include specific bitmap sizes and characters.

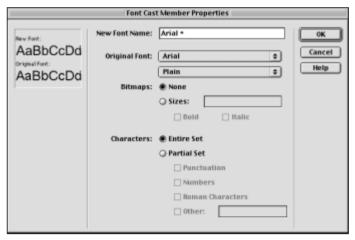


Figure 4-18: In the Font Cast Member Properties dialog box, select the attributes of the font that you are embedding in your Director movie.

- **2.** Select the font by clicking the arrow button next to the Original Font list box. A list appears, showing all the fonts installed on your system. Choose the font that you want to use from this list.
- **3.** In the New Font Name box, the name of the new font appears followed by an asterisk. Director uses this new name in all of its font menus. It's better to use the default name for the font, because it is more obvious than its embedded version.

Here are some things that you should consider before selecting the other options:

◆ If you want to have bold or italic versions of the font (which are more attractive), click the check boxes to turn these options on. Selecting these options includes a bitmap version of the bold and italic characters of the font, which increases the size of the Font cast member.

- ♦ To include bitmap versions of the font at specific sizes, click the Sizes radio button below the Bitmaps options and type in the sizes that you want to use, separated by either spaces or commas. Select this option if you will be displaying small text sizes that won't look good if they are antialiased.
- ♦ If file size is a concern, add only the characters that you are using for the text. Click the Partial Set radio button below the Characters option. Choose to include Punctuation, Numbers, and Roman Characters, and type in any individual characters that you want to include.



If you are developing Director projects simultaneously on both the Windows and Macintosh platforms, using embedded fonts enables you to open and edit Text and Text Field cast members without losing their font attributes, even if the font is not installed on the user's system.

Summary

This chapter explained some of Director's powerful text-handling capabilities. Among the topics discussed were these:

- ♦ Director supports three types of text: bitmapped text, RTF (Rich Text Format), and text fields.
- ♦ You can embed fonts in a movie, and you can apply embedded fonts to Text and Text Field cast members. Using embedded fonts ensures that the text will be displayed and edited correctly on any platform, even if the font is not installed on the user's system.
- ♦ Rich Text can be antialiased, enabling you to remove or reduce the "jaggies" effect that often occurs with bitmapped text.
- ◆ You can flip, rotate, skew, and animate Text cast members in the same way that you perform those operations on a bitmapped cast member.
- + HTML documents can be imported into Director and when imported, they retain their original formatting and hypertext links.
- Lingo scripts can be linked as external files that are automatically updated when the script is revised.
- ◆ You can edit the properties that determine the way text is displayed (if the text is editable), and you can change how the Tab key affects the Text cast member.

The next chapter describes how to use sound in your Director movies.

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