Adobe® LiveMotion™

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User Guide

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Adobe® LiveMotion™ User Guide for Windows® and Macintosh

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Contents

Introduction

Welcome to Adobe® LiveMotion® 2.0, a powerful application for designing and developing interactive content. Whether you're a novice or an Web design expert, Adobe LiveMotion offers you the tools you need to get professional-quality results.

You'll find that Adobe LiveMotion excels as an animation production tool, whether you are a designer, or a creator of Web pages or online content. LiveMotion gives you an unmatched level of precision and control over your Web compositions and the flexibility to produce anything from small designs to large, complex Web pages. It also provides a consistent work environment with other Adobe applications including Adobe Photoshop®, Adobe Illustrator®, and Adobe GoLive®.

Registration

Adobe is confident you will find that its software greatly increases your productivity. So that Adobe can continue to provide you with the highest quality software, offer technical support, and inform you about new LiveMotion software developments, please register your application.

When you first start the application, you're prompted to register online. You can choose to submit the form directly or fax a printed copy. You can also register by filling out and returning the warranty registration card included with your software package.

Installing Adobe LiveMotion

You must install LiveMotion from the Adobe LiveMotion CD onto your hard drive; you cannot run the program from the CD.

Follow the on-screen installation instructions. For more detailed information, see the *HowToInstall* file on the CD.

Getting started

Adobe provides a variety of options for you to learn LiveMotion, including printed guides, online Help, and tool tips. Using the Adobe Online feature, you can easily access a host of continually updated Web resources for learning LiveMotion, from tips and tutorials to tech support information. Getting up to speed depends on your experience with previous versions of LiveMotion.

If you are new to LiveMotion:

- Read through the "Overview" chapter for an introduction to the software.
- See Chapter 1, "LiveMotion Basics" on page 9 to familiarize yourself with LiveMotion terminology, tools, and the work area.
- See Chapter 2, "Drawing Objects" on page 22 to learn how to create shapes and other objects.
- See Chapter 10, "Animating Objects" on page 83 to learn about animation in LiveMotion 2.0.
- Use the LiveMotion tool tips feature to help identify tools, buttons, and palette controls as you work in LiveMotion. See "Using tool tips" on page 4.
- Go to the Adobe.com Web site and work through some of the LiveMotion tutorials for hands-on lessons. See "Using Web resources" on page 4.

If you are an experienced LiveMotion user:

- Scan through "Using text in compositions" on page 30 to learn about the new text functions.
- See "Opening After Effects/AMX format files" on page 63 for information about bringing files created in After Effects 5.5 or later into LiveMotion 2.0.
- See "Showing, hiding, and locking objects" on page 88 to learn how to control whether objects are displayed or editable.
- See "Attaching behaviors and other scripts to rollovers" on page 115 to learn how to attach scripts to the different states of a rollover.
- See "About scripts" on page 124 for a high-level introduction to the scripting features of LiveMotion 2.0.

- See "Optimizing your compositions" on page 129 to learn how to create animation files that load quickly and play smoothly.

If you are a developer:

- See "Managing files with WebDAV" on page 64 to learn about the asset management features in LiveMotion.
- See "Adding metadata to documents" on page 68 to learn how to add descriptive information about the contents of a document that can be searched and processed by a computer.
- See "Saving and applying animations as styles" on page 102 to learn about the benefits of using styles with animations.
- See "Working with labels" on page 110 to learn about using labels for references that scripts point to.
- See "Working with script keyframes" on page 111 to learn how to add a script keyframe to any point in an animation.
- See the *Adobe LiveMotion 2.0 Scripting Guide* to learn how to create your own scripts to use in LiveMotion.

Using the printed documentation

In addition to this user guide, the *Adobe LiveMotion 2.0 Scripting Guide* is included with Adobe LiveMotion 2.0. The *Adobe LiveMotion 2.0 Scripting Guide* contains information on creating and using scripts in LiveMotion 2.0. You will also find many PDF documents on the LiveMotion CD.

Using online Help

Adobe LiveMotion also includes complete documentation in an HTML-based help system. The LiveMotion help system includes all of the information in the *Adobe LiveMotion 2.0 User Guide* plus keyboard shortcuts, full-color illustrations, and more detailed information about some procedures. (A printable version of the Help content is available in PDF format on the Adobe LiveMotion CD.)

Online Help provides three ways of locating information. The Contents and Index tabs let you find general information, and the Search tab lets you look up specific words or phrases.

For more detailed information about using online Help, click on the Help button next to the Content, Index, and Search tabs.

To properly view online Help topics, you need Netscape Communicator 4.0 (or later) or Microsoft® Internet Explorer 4.0 (or later). You must also have JavaScript active.

To start online Help:

Choose Help > LiveMotion Help, or press F1 (Windows).

Using tool tips

The tool tips feature lets you display the name of tools, or buttons and controls in palettes.

To identify a tool or control:

Position the pointer over a tool or control and pause. A tool tip appears showing the name and keyboard shortcut (if any) for the item.

Note: *Tool tips are not available in most dialog boxes.*

Using Web resources

If you have an Internet connection, you can use the Adobe Online feature to access additional resources for learning LiveMotion located on the Adobe.com Web site. From the Adobe.com home page, select Products. Then choose LiveMotion and go to Training & Events.

These resources are continually updated and include the following:

Tutorials and Techniques Provide step-by-step instructions on using LiveMotion's features or help on performing advanced techniques. These tutorials can help you go beyond the reference information contained in the user guide and show you how to use LiveMotion with other applications.

How Tos and Backgrounders Provide access to procedures for performing tasks in LiveMotion and to detailed reference information on a variety of topics. This information provides help on everything from common processes to the complex inter-application tasks necessary to prepare graphics for the Web.

Troubleshooting Provides access to solutions to problems you may encounter using LiveMotion. You should check out troubleshooting information available through Adobe Online and the Adobe Web site before you call customer support.

To access Adobe's home page for your region:

1 Open Adobe's U.S. home page at www.adobe.com.

2 From the Adobe Worldwide menu, choose your geographical region. Adobe's home page is customized for 20 different geographical regions.

About Adobe Online

Adobe Online provides access to the latest tutorials, quicktips, and other Web content for LiveMotion and other Adobe products. Using Adobe Online, you can also download and view the current version of the LiveMotion Top Issues document containing the latest LiveMotion technical support solutions. Bookmarks are also included to take you quickly to noteworthy Adobe—and LiveMotion—related sites.

Using Adobe Online

Adobe Online is constantly changing, so you should refresh before you use it. Refreshing through Adobe Online updates bookmarks and buttons so you can quickly access the most current content available. You can use preferences to automatically refresh Adobe Online.

When you set up an Internet connection to Adobe Online, Adobe can either notify you whenever new information is available through the Downloadables feature or automatically download that information to your hard disk. If you choose not to use Adobe's automatic download feature, you can still view and download new files whenever they are available using the Downloadables command in the Help menu.

To use Adobe Online:

1 In LiveMotion, choose Help > Adobe Online, or click the icon at the top of the toolbox.

Adobe Online icon

Note: *You must have an Internet connection to access Adobe Online. Adobe Online will launch your browser using your default Internet configuration.*

2 Do any of the following:

- Click any button in the Adobe Online window to open the linked Web page.
- Click the bookmark button to view Adobe-suggested Web sites related to LiveMotion and Adobe. These bookmarks are updated as new Web sites become available.
- Click Close to return to LiveMotion.

3 To ensure that you are using the most current version of Adobe Online, do any of the following:

- Go to the Adobe Product Update page at www.adobe.com/adobeonline to access the most recent information and downloads.
- Set the preferences for your operating system to enable automatic update options.

Note: *You can set Adobe Online preferences by choosing Edit > Online Settings.*

Accessing Adobe Online through the Help menu

The Help menu includes options to view and download information from Adobe's Web site.

To view updated articles or documents:

Click Help and choose the topic you want to view.

Other learning resources

Other learning resources are available but are not included with your application.

Adobe Press Offers a library of books that provide in-depth training in Adobe graphics and publishing software, including the acclaimed Classroom in a Book series developed by experts at Adobe. For information on purchasing Adobe Press titles, visit the Adobe Web site at www.adobe.com, or contact your local book distributor.

The Adobe Certification program Offers users, instructors, and training centers the opportunity to demonstrate their product proficiency and promote their software skills as Adobe Certified Experts, or Adobe Certified Training Providers. Certification is available worldwide. Visit the Partnering with Adobe Web site at http://partners.adobe.com to learn how you can become certified.

Customer support

When you register your product, you may be entitled to technical support for up to 90 days from the date of your first call. Terms may vary depending on the country of residence. For more information, refer to the technical support card provided with the LiveMotion documentation.

Customer support on Adobe Online

Adobe Online provides access to the LiveMotion Knowledgebase, where you can find answers to technical questions.

Additional customer support resources

Adobe Systems provides several forms of automated technical support:

- See the ReadMe and ReadMe First! files installed with the program for information that became available after this guide went to press.
- Explore the extensive customer support information on Adobe's World Wide Web site (www.adobe.com). To access Adobe's Web site from LiveMotion, choose Help > Adobe Online or click the icon at the top of the toolbox. See "Using Web resources" on page 4.
- Read the Top Issues PDF that is available from the Help menu.

Chapter 1: LiveMotion Basics

The Adobe LiveMotion work area includes the menu bar of commands at the top of your screen, the composition window containing artwork, and a variety of tools and palettes for editing and adding elements such as objects, layers, and text.

Understanding Adobe LiveMotion terminology

Understanding compositions, objects, layers, and animation will help you master Live Motion. With Adobe LiveMotion, you can easily design, create, and optimize Web animations, rollovers, navigation bars, and graphics. LiveMotion excels at Web animation and exports your work to Web animation standard formats—Flash, QuickTime, and GIF. You can also use LiveMotion to create and export small graphics or entire Web pages.

Compositions Basic LiveMotion documents which you create. They contain one or more objects, and are displayed in the *Composition window*.

You can export individual objects in an image file format for placement in a Web page, or you can export the entire composition as a Web page in HTML format. You can also export compositions or individual objects as a Web-ready animation files in Flash (.swf) or QuickTime formats, or as animated GIFs, or as PNG or JPEG image files.

Objects Building blocks you create and work with in LiveMotion compositions. LiveMotion is an object-based application.

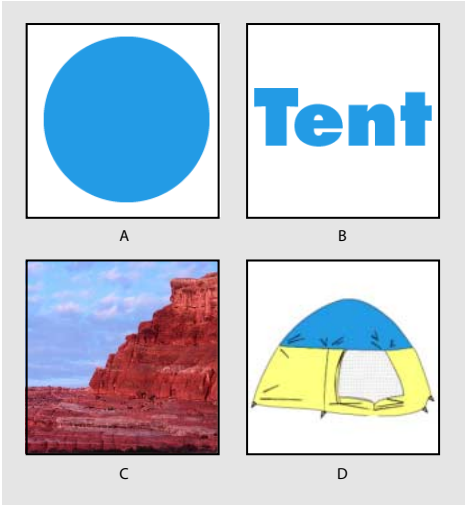
There are four kinds of objects:

- Geometric objects are those you create with the drawing tools or drag from the Library palette.
- Text objects are blocks of text that you create using the type tool or the text field tool.
- Image objects are bitmap graphics that you import into LiveMotion.
- Sound objects are audio files that you import for animations and rollover effects. Sound objects do not appear in the Composition window. They appear only in the Timeline window.

Shapes The visual boundaries of objects:

- Geometric objects have either a regular path shape (rectangles, rounded rectangles, polygons, or ellipses, for example), or an irregular path shape.
- Text objects are the shape of the individual characters in the text.
- Bitmap images generally have a rectangular shape, unless they have an alpha channel or an active matte.

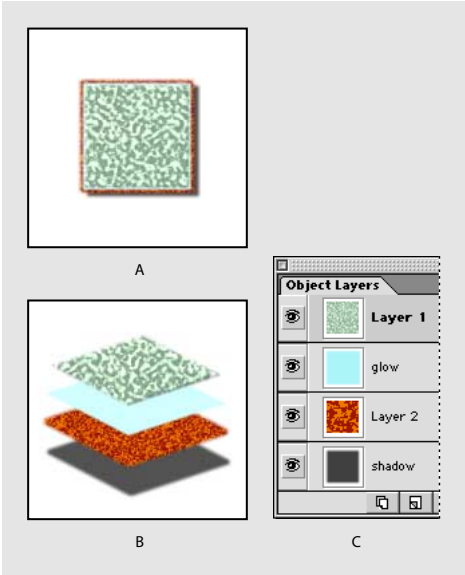
- EPS vector images are in the shape of the artwork itself. For example, an EPS vector image of a flower would be in the shape of that flower.



Different shape objects in LiveMotion
A. Geometric object **B.** Text object **C.** Image object (bitmap) **D.** Image object (EPS vector)

Object layers The building blocks of objects. Object layers are part of an individual object; they are not part of the composition as a whole. An object is made up of 1–99 layers, with each layer being the shape of that object.

When you first create an object, it has a single layer. You can add, delete, reorder, and offset layers at any time. For example, a layer can be added to an object and then offset to simulate a shadow for the object.

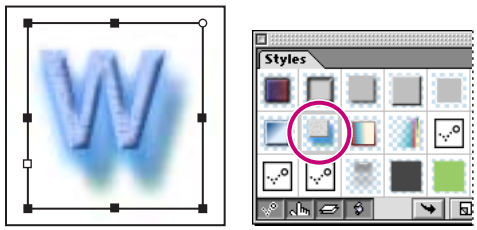


A LiveMotion object and its layers
A. Four-layered object as it appears in a composition **B.** Individual layers in their stacking order
C. Layers shown in the Object Layers palette

Layer attributes How the properties—color, gradients, distortion, and opacity—of a layer are defined. Attributes can be applied to any layer individually.

By applying different attributes to each layer, you can create a variety of effects and create complex objects. For example, to create a button out of a simple geometric object, you might give it three layers, and apply different effects to each layer. You could emboss the top layer and fill it with a texture. You could make the second layer wider and fill it with a color to give the effect of an outline around the button. And you could offset the third layer, and fill it with semitransparent gray to simulate a shadow for the button.

Styles Collections of properties you can apply a style to any object to change the appearance of the object without changing its shape.For example, you can apply a style to a text object to give the object several layers. The text object would then have all the attributes of that style. There are also animation styles and Rollover styles that apply only to animations and rollovers. You can also save styles in the Styles palette and apply them to other objects.



Applying a style from the Styles palette

Animation The application of changes to an object over time. You can do this for one or more objects simultaneously, and you can even animate changes to individual layers in an object. For example, you can rotate just the angle of a gradient effect applied to an object.

LiveMotion provides features that enable you to create rollovers and JavaScript actions. You can also update graphics and text in existing Web pages.

The LiveMotion file format (.liv format) This file format embeds all objects and placed artwork in the composition, along with their modifications and their attributes, so that you can reedit the objects at any time.

Looking at the work area

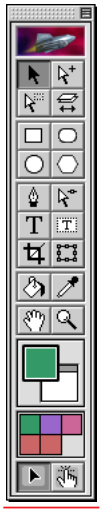
LiveMotion gives you an efficient work area and user interface to create and edit compositions for web pages. The LiveMotion work area is arranged to help you focus on your compositions.

Using tools

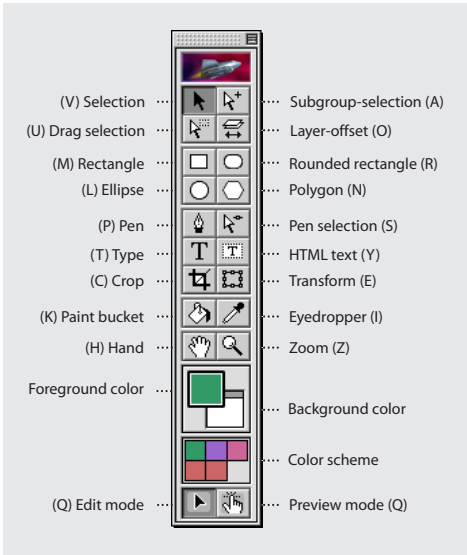
LiveMotion tools let you select, create, fill, edit, and view objects and backgrounds. The first time you start LiveMotion, the toolbox appears on the left side of the screen.

When you select a tool, that tool remains selected until you choose another tool. To change the default so that after you select a tool, it switches back to the selection tool, choose Edit > Preferences and select Auto-Revert to Arrow Tool.

When you select most tools, the pointer matches the tool's icon. For example, choosing the pen tool changes the pointer to a pen tip.



LiveMotion toolbox



LiveMotion toolbox

LiveMotion includes these tools:

The selection tool Selects objects (see "Editing objects" on page 38).

The Subgroup-selection tool Selects objects and groups within groups (see "Editing objects" on page 38).

The drag-selection tool Selects objects by dragging, letting you select objects that are obscured by other objects (see "Editing objects" on page 38).

The layer-offset tool Moves the selected layer relative to ~~the~~ other layers in the object (see "Using the Layer palette" on page 72).

The rectangle tool Draws squares and rectangles (see "Drawing shapes" on page 21).

The rounded-rectangle tool Draws squares and rectangles with rounded corners (see "Drawing shapes" on page 21).

The ellipse tool Draws circles and ellipses (see "Drawing shapes" on page 21).

The polygon tool Draws objects that have three to ten sides (see "Drawing shapes" on page 21).

The pen tool Creates paths, or adds or removes points from an existing path (see "Using the pen tool" on page 22).

The pen selection tool Selects and manipulates points on a path (see "Adjusting path segments" on page 26).

The type tool Creates type, and lets you enter and edit type (see "Using text in compositions" on page 30).

Text field tool Creates text in a container (see "Using text fields" on page 31).

The crop tool Adjusts the displayed portion of objects (see "Cropping objects" on page 53).

The transform tool Skews, shears, or rotates objects. Also moves the object anchor point (see "Transforming objects" on page 49).

The paint bucket tool Fills layers and objects with the current color or with a style (see "Copying colors and styles" on page 86).

The eyedropper tool Samples the color of layers and the style of objects (see "Copying colors and styles" on page 86).

The hand tool Moves the area being viewed within the composition window (see "Using Web resources" on page 18).

The zoom tool Increases and decreases the magnification in the composition window (see "Using Web resources" on page 18).

The edit mode button Activates the editing mode, LiveMotion's default mode.

The preview mode button Activates the preview mode, which allows you to run animations and test rollovers.

To show or hide the toolbox:

Choose Window > Tools.

To move the toolbox:

Drag the toolbox by its title bar.

To select a tool:

Click its icon in the toolbox.

Using palettes

Palettes help you monitor and modify objects. By default palettes are docked in several groups. You can display or hide palettes as you work. The positions of all open palettes are saved when you exit the program.

To show or hide a palette:

Choose the name of the palette from the Window menu.

A check mark next to the palette's name in the menu indicates that the selected palette is at the front of its group.

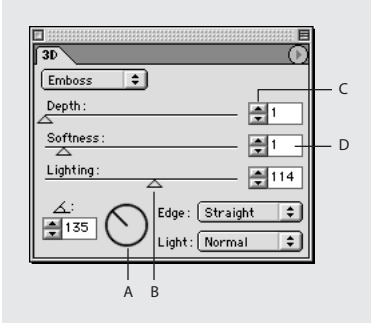
To change the palette display:

To rearrange palettes to make better use of your work area, do one of the following:

- To move a palette to the front of its group, click its tab.
- To move an entire palette group, drag its title bar.
- To rearrange or separate a palette group, drag a palette's tab. Dragging a palette outside of an existing group creates a new group.
- To move a palette to another group, drag the palette's tab to that group.
- To collapse or expand a group, click the minimize/maximize box (Windows) or the click the zoom box (Mac OS). You can open the palette menu from a collapsed palette.
- To return palettes to their default settings, Choose Window > Reset to Defaults.

Entering values in palettes

Some palettes contain options that let you enter values using any combination of sliders, angle controls, arrow buttons, and text boxes.



Ways to enter values in palettes
A. Dial **B.** Slider **C.** Arrow buttons **D.** Text box

To enter a value, do one of the following:

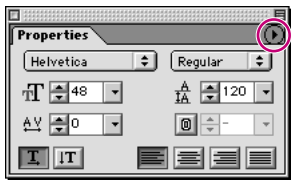
- Drag the slider to the desired value.
- Drag the dial to the desired value.
- Type a value in the text box. To apply your entry, press Enter or Return.
- Click or press the up arrow or down arrow button in the palette to increase or decrease the value.
- (Windows) Click in the text field and then click the Up Arrow or Down Arrow key on the keyboard to increase or decrease the value.

You can use the Tab key to move between fields.

Using palette menus

Palette menus are an important part of working with LiveMotion. Some commands in palette menus can be found in the menu bar; other commands are exclusive to palette menus.

When a palette has a palette menu, a triangle icon appears at the top of the palette. THe exact location and appearance of the triangle icon depends on where the palette is located.



Properties palette menu

To use a palette menu:

1. Select a palette.
2. Click the triangle ⊙ in the upper right corner of the palette.
3. Choose a command from the palette menu.

Using context menus

In addition to the menus that appear at the top of your screen, Adobe LiveMotion contains a number of context-sensitive menus that relate to the document or selection.

To display a context menu:

1. Position the pointer over the composition or over an object in the composition.
2. Do one of the following:

- In Windows, click the right mouse button.
- In Mac OS, press Control and hold down the mouse button.

Organizing composition windows

Adobe LiveMotion gives you great flexibility in organizing your composition windows.

To navigate in a composition:

If the composition window does not display the entire composition, do one of the following:

- Use the composition window scroll bars.
- Select the hand tool, and drag in the composition to move its view.

Dragging with hand tool to move area into view

To use the hand tool while another tool is selected, press and hold *H* or the spacebar as you drag in the composition.

To arrange multiple compositions:

Do one of the following:

- Choose Window > Stack to display composition windows overlapping from the top left to the bottom right of the screen.
- Choose Window > Tile to display composition windows edge to edge vertically and horizontally. For example, if you have four open compositions, LiveMotion displays them tiled two across and two down.
- In Windows, choose Window > Tile Vertical to display composition windows edge to edge vertically. For example, if you have four open compositions, LiveMotion displays them four across.

Magnifying and reducing the view

The zoom-in and zoom-out tools and commands let you magnify or reduce the display of any area in the file up to 64 times actual size, or 800%. Zooming in and out does not change the actual size of the file, only the magnification at which you see it.

Clicking with zoom tool to magnify view

To zoom in:

Do one of the following:

- Select the zoom tool. The pointer becomes a magnifying glass containing a plus sign. Click at the center of the area you want to magnify. Each click magnifies the view to the next preset percentage. When the file has reached its maximum magnification level, the magnifying glass appears blank.
- Choose View > Zoom. Each click magnifies the view to the next preset percentage. When the file has reached its maximum magnification level, the command is dimmed.

To zoom out:

Do one of the following:

- Select the zoom tool, then hold down Alt (Windows) or Option (Mac OS). The pointer becomes a magnifying glass containing a minus sign. Click the center of the area you want to reduce. Each click reduces the view to the previous preset percentage. When the file has reached its maximum reduction level, the magnifying glass appears blank.
- Choose View > Zoom Out. Each click reduces the view to the previous preset percentage. When the file has reached its maximum reduction level, the command is dimmed.

To magnify by dragging:

1 Select the zoom tool.

2 Drag a dotted rectangle, called a marquee, around the area you want to magnify. To move the marquee around the artwork, begin dragging a marquee and then hold down the spacebar while dragging the marquee to a new location.

To display art work at 100%:

Do one of the following:

- Choose View > Actual Size.
- Double-click the zoom tool.
- Double-click the hand tool.

Using the Timeline window

The Timeline window displays all objects in the composition. Because selecting objects in one window selects them in the other, selecting objects in the Timeline window is equivalent to selecting objects in the composition window. Selecting objects in the Timeline window is particularly useful if the composition window is crowded or if objects are hidden.

To view the Timeline window:

Choose Window > Timeline to show or hide the Timeline window.

Working with compositions

LiveMotion gives you tools and commands to create new compositions, edit your compositions, and then save or export your finished work.

Creating and opening compositions

The New Composition command creates a blank, untitled LiveMotion composition.

The Open command opens native LiveMotion files. Once opened, you can create, place, import, and modify objects in the composition. You can also use the Open command to open LiveMotion 1.0 files.

To create a new LiveMotion composition:

1 Choose File > New Composition.

2 Accept the default settings, or enter changes as necessary, and click OK.

By default, the work area for a new composition is 550 pixels wide by 500 pixels high and has a white background. The maximum size is 1024 by 1024 pixels.

To open an existing LiveMotion file:

1 Choose File > Open.

2 Select the name of the file you want to open, and click Open.

Changing composition settings

The Composition Settings command lets you increase or decrease the size of the composition area and set the frame rate for your animations.

To change the composition settings:

1 Choose Edit > Composition Settings.

2 Enter the desired height, width, and frame rate.

Note: *Lower frame rates create smaller exported files, but choppy animation. Higher frame rates create smoother animation but larger exported files. Also, if the computer or Internet connection is not fast enough, animation with high frame rates may not run smoothly.*

3 Click OK.

For more information on exporting files, see "About exporting" on page 140.

Editing compositions

You can edit individual objects or multiple objects at the same time. You can transform objects by skewing, rotating, and resizing them, regardless of the object type or the layer attributes. You can edit objects or individual layer attributes or entire styles at any time, regardless of the transformations you have made to the object.

Text objects are fully editable. You can rewrite the text in a text object, as well as change its font properties and layer attributes at any time.

Editing is *nondestructive*—that is, the underlying object can be recovered unaltered. For instance, you can shrink an imported image, skew it, apply a style to it, and still return the image to the way it looked when you first imported it—even if you've saved and closed the composition multiple times.

Undoing changes

Changes to your composition can be undone. You can even undo or redo an operation after you choose the Save command, as long as you haven't closed the file. If an operation can't be undone or redone, the command is dimmed and replaced by Can't Undo or Can't Redo. You cannot undo save and export commands. You can also undo multiple previous steps, although available memory may limit your ability to use this option.

If you want to undo all of the operations that you have performed since you last saved the file, use the Revert command rather than the Undo command. When you choose Revert, you lose all changes made to the composition since the last time it was saved.

Note: *The Revert command cannot be undone.*

To undo or redo previous operations:

Do one of the following:

- Choose Edit > Undo (operation) one or more times to move backward through the previous changes.
- Choose Edit > Undo > Undo (operation) followed by the name of the operation. This undoes all changes made after and including the operation.
- Choose Edit > Redo (operation) one or more times to move forward through the changes you undid.
- Choose Edit > Undo > Redo (operation) to redo all changes made after and including the operation.
- Choose File > Revert, and click OK (Windows) or Revert (Mac OS) to revert to the last-saved version of the file.

Saving compositions

A composition saved in the LiveMotion format (.liv) can be reopened and edited in LiveMotion. LiveMotion files use the extension *.liv* in Windows. The Windows and Mac OS LiveMotion file formats are completely compatible.

When you are ready to use your artwork on a Web page, you must export it in Flash (.swf) format, as an animated GIF, or as a PNG or JPEG image file. See "About exporting" on page 140.

To save a composition in LiveMotion format:

Choose File > Save.

To save a composition with a different filename:

1 Choose File > Save As.

2 Enter a filename, choose a location for the file, and click Save.

Exporting Compositions

When you are ready to use you compositions on the Web, you must export them, rather than save them. LiveMotion supports several image and animation export formats and has a variety of tools for exporting individual objects for placement in Web pages. With the AutoLayout option, you can export your composition as image slices, with rollovers and remote rollovers intact.

For information on exporting and file formats available in LiveMotion, see "About exporting" on page 140.

Printing compositions

LiveMotion compositions are intended for use on the Web, but you can also print them. LiveMotion resamples the composition to match the resolution of your printer.

Before you print a composition, use the Print Setup (Windows) or Page Setup (Mac OS) dialog box to select general printing options. The exact appearance of this dialog box depends on your hardware and software.

To select page setup options:

1 Choose File > Print Setup.

The exact appearance of this dialog box depends on your hardware and software. See your printer documentation for more information on these options.

2 Select the required page options, and click OK.

To print a composition:

1 Choose File > Print.

2 Select the required printing options, and click OK (Windows) or Print (Mac OS).

See your printer documentation for more information on these options.

Setting Preferences

Several program settings are stored in the Preferences file. Preference settings are saved each time you exit Adobe LiveMotion.

To specify preferences:

1 Choose Edit > Preferences.

2 Choose the desired preference:

- Auto-Revert to Arrow Tool to switch the active tool to the selection tool after any single use of another tool.
- Gridline Every to set the distance between gridlines.
- Subdivisions to set the number of subdivisions between gridlines.
- (Mac OS) Append File Extension to add a .liv extension to the file name (important if you will be sharing your files with Windows users).

3 Click OK.

Using Web resources

If you have an Internet connection and a Web browser installed on your system, you can use the Adobe Online feature to access the Adobe Systems home page on the World Wide Web. Adobe's home page provides access to a host of resources you can use to get more out of LiveMotion.

How To Provides access to procedures for performing tasks in LiveMotion. These procedures provide help on everything from completing common processes, such as printing, to complex interapplication tasks, such as converting raster images to vector.

Tutorials Provide step-by-step instructions on using LiveMotion features or help on performing advanced techniques. These tutorials can help you go beyond the reference information contained in the user guide. Tutorials are constantly updated to provide help on new features or complex techniques.

Quicktips Provide short, time-saving procedures to help you use LiveMotion more effectively. Tips can be shortcuts for using new features, or instructions on using existing features more effectively.

Backgrounders Provide detailed reference information on drawing and illustration concepts.

Troubleshooting Provides access to solutions to problems you may encounter using LiveMotion. You should check out this section before you call technical support. Also, you can find FAQs (Frequently Asked Questions) that may help with technical problems. See "Customer Support on Adobe Online" on page 19.

About Adobe Online

Adobe Online provides access to the latest tutorials, quicktips, and other Web content for LiveMotion. You can also download and view the current version of the LiveMotion Top Issues document containing the latest LiveMotion technical support solutions. Bookmarks are also included to take you quickly to noteworthy Adobe- and LiveMotion-related sites.

Using Adobe Online

Adobe Online is constantly changing, so you should refresh Adobe Online before you use it. Refreshing Adobe Online updates bookmarks and buttons so you can quickly access the most current content available. You can use preferences to automatically refresh Adobe Online daily, weekly, or monthly.

When you set up Adobe Online to connect to your Web browser, Adobe can either notify you whenever new information is available or automatically download that information to your hard disk. If you choose not to use Adobe's automatic download feature, you can still view and download new files whenever they are available by using the Downloadables command in the Help menu.

To use Adobe Online:

1 In LiveMotion, choose Help > Adobe Online, or click the icon at the top of the toolbox.

Note: *You must have an Internet connection and an Internet browser installed. Adobe Online will launch your browser using your default Internet configuration.*

2 Do any of the following:

- Click Refresh to make sure you have the latest version of the Adobe Online window and its buttons, as well as the latest bookmarks. It is important to refresh the screen so that the current options are available for you to choose from.
- Set Adobe Online preferences by choosing Edit > Online Settings.
- Click any button in the Adobe Online window to open the Web page to which the button is linked.
- Click the bookmark button to view Adobe- suggested Web sites related to LiveMotion and Adobe. These bookmarks are automatically updated as new Web sites become available.
- Click Close to return to LiveMotion.

Accessing Adobe Online through the Help menu

The Help menu includes options to view and download information from Adobe's Web site.

To view updated articles or documents:

From the Help menu choose the topic you want to view.

Customer Support

When you register your product, you may be entitled to technical support for up to 90 days from the date of your first call. Terms may vary depending on the country of residence. For more information, refer to the technical support card provided with the LiveMotion documentation.

Customer Support on Adobe Online

Adobe Online provides access to FAQs (Frequently Asked Questions) and technical guides, which can provide information on techniques not covered in the user guide or online Help. You can also access troubleshooting information that provides solutions to common problems.

Additional customer support resources

Adobe Systems provides several forms of automated technical support:

- See the ReadMe and ReadMe First! files installed with the program for information that became available after this guide went to press.

- Explore the extensive customer support information on Adobe's World Wide Web site (www.adobe.com). To access Adobe's Web site from LiveMotion, choose Help > Adobe Online.

Read the Top Issues PDF that is available from the Help menu.

Chapter 2: Drawing Objects

There are several tools you can use to draw geometric objects in LiveMotion. You can create different effects with the drawing tools by customizing the options for each tool.

About LiveMotion objects

Objects are the basic building blocks you use to design and build compositions for a Web page. You create geometric objects using shapes. Objects in a composition can be selected, moved, and modified individually or they can be grouped (see "Grouping objects" on page 47).

The stacking order of LiveMotion objects in a composition is based on their creation order. Newer objects are drawn in front of older objects. You can change the stacking order by moving objects in front of or behind one another. (See "Stacking objects" on page 39).

Drawing shapes

LiveMotion shape tools allow you to easily create different shapes:

- The rectangle tool draws rectangles and squares.
- The rounded-rectangle tool draws rectangles and squares with rounded corners.
- The polygon tool draws objects with three to ten straight sides, each side being equidistant from the center of the object.
- The ellipse tool draws ellipses and circles.

To create a rectangle, rounded rectangle, polygon, or ellipse:

1 Select the rectangle tool, the rounded-rectangle tool, the polygon tool, or the ellipse tool.

2 Drag diagonally until the shape is the desired size.

Shift-drag to draw shapes of equal height and width—for instance, to draw squares with the rectangle tool or circles with the ellipse tool. Hold down Alt / Option as you drag to draw the object from the center out.

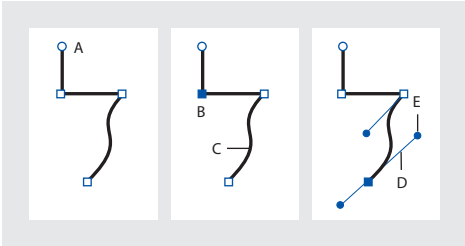
Changing shape tool properties

To change the way a shape looks—for example, to change the width of the outline of a shape, you can use the shape options in the Properties palette (see "Modifying the properties of geometric shapes" on page 52).

Using the pen tool

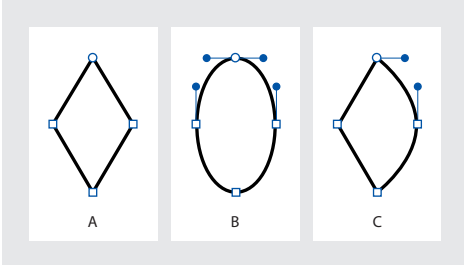
The pen tool lets you create straight lines and smooth, flowing curves with great precision. The pen tool creates freeform paths made up of one or more straight or curved *segments*. The beginning and end of each segment are marked by *control points*, which work like pins holding wire in place. You change the shape of a path by editing its control points using the pen selection tool.

A path is either *open*, like an arc, or *closed*, like a circle. For an open path, the starting and ending control points for the path are called *endpoints*. You can control curves by dragging the *direction points* at the end of *direction lines* that appear at control points that form curves.



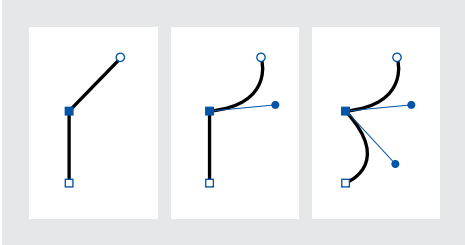
Path segments
A. Selected endpoint **B.** Selected control point **C.** Curved path segment
D. Direction line **E.** Direction point

Paths can have two kinds of control points—corner points and smooth points. At a *corner point*, a path abruptly changes direction. At a *smooth point*, path segments are connected as a continuous curve. You can draw a path using any combination of corner and smooth points. If you draw the wrong kind of point, you can always change it.



Corner and smooth points
A. Four corner points **B.** Same point positions using smooth points
C. Same point positions combining corner and smooth points

A corner point can connect any two straight or curved segments, while a smooth point always connects two curved segments.



A corner point connecting both straight segments and curved segments.

Drawing straight segments

You can draw a straight line by clicking (not dragging) the pen tool to create two control points. By continuing to click, you create a path made of straight line segments connected by corner points.

To draw straight segments with the pen tool:

1 Select the pen tool .

2 Position the tip of the pen point where you want the straight segment to begin, and click to define the first anchor point (do not drag). The control point remains selected (solid) until you click to add the next point.

Note: *The first segment you draw will not be visible until you click a second control point. Also, if direction lines appear, you've accidentally dragged the pen tool; choose Edit > Undo, and click again.*

3 Click again where you want the segment to end. (Shift-click to constrain the segment's angle to multiples of 45 degrees.) This creates another control point.

4 Continue clicking the pen tool to create additional straight segments.

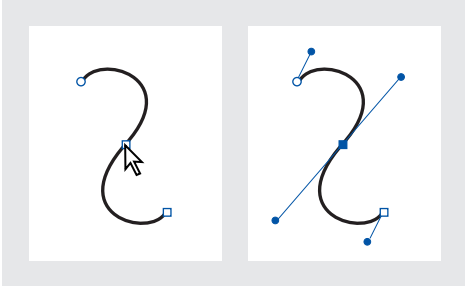
The last control point you add appears as a solid square, indicating that it is selected. Existing control points become deselected as you add more control points.

5 Complete the path by doing one of the following:

- To close a path, position the pen pointer over the first (hollow) control point. A small loop appears next to the pen tool when it is positioned correctly. Click to close the path.
- To leave the path open, Ctrl-click (Windows) or Command-click (Mac OS) anywhere away from all objects, or choose Edit > Deselect All, or select a different tool in the toolbox.

About direction lines and direction points

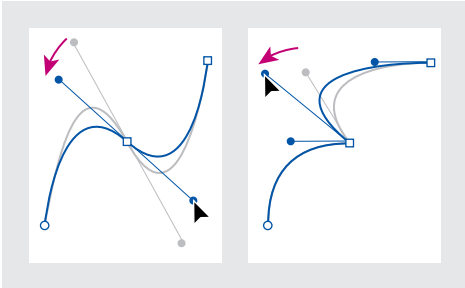
Before you draw and modify curved segments with the pen tool, it's important to understand two elements that are associated with control points on curves. When you select a control point connecting curved segments, the segments display *direction lines* which end in *direction points*. The angle and length of the direction lines determine the shape and size of the curved segments. Moving the direction points reshapes the curves. Direction lines are for your reference and don't appear on your Web page.



After selecting a control point (left), direction lines appear on any curved segments connected to it (right).

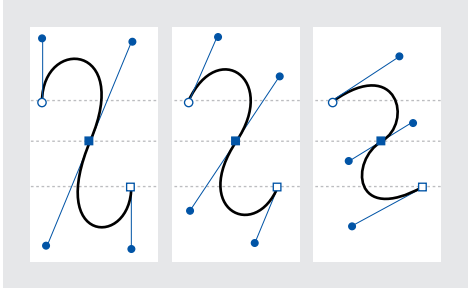
A smooth point always has two direction lines that move together as a single, straight unit. When you drag the direction point of either direction line on a smooth point, both direction lines move simultaneously, maintaining a continuous curve at that control point.

In comparison, a corner point has no direction lines. The angles of corner points are changed by dragging the corner point directly.



Adjusting direction lines on a smooth point (left) and a corner point (right)

Direction lines are always tangent to (perpendicular to the radius of) the curve at the control points. The angle of each direction line determines the slope of the curve, and the length of each direction line determines the height, or depth, of the curve.



Moving and resizing direction lines changes the slopes of curves.

Drawing curved segments

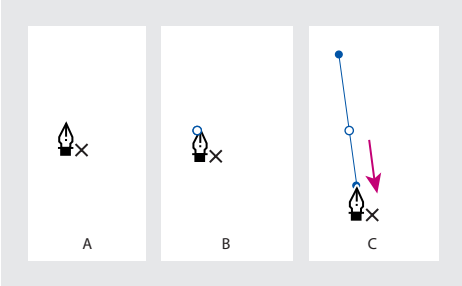
You create curves by using the pen tool to add control points where a curve changes direction, and to drag the direction points that shape the curves.

Curves are easier to edit and your system can display them faster if you draw them using as few control points as possible. Using too many points can also introduce unwanted bumps in a curve. Instead, draw widely spaced control points, and practice shaping curves by adjusting the length and angles of the direction lines.

To draw a curved segment:

1 Select the pen tool .

2 Position the pen tip where you want the curve to begin, and drag to set the slope of the curve segment you're creating. In general, extend the direction line about one third of the distance to the next control point you plan to draw.

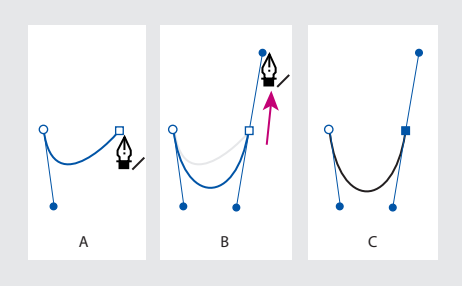


Drawing a curved segment
A. Positioning pen tool **B.** Starting to drag to create direction lines
C. Dragging to extend direction lines

3 Release the mouse button.

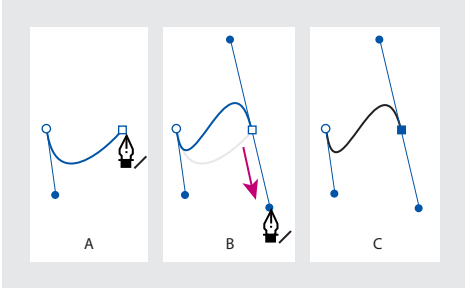
4 Position the pen tool where you want the curve segment to end, and do one of the following:

- To create a "C"-shaped curve, drag in a direction opposite to the previous direction line.



Drawing an C-shaped curve
A. Starting to drag second smooth point to create direction lines **B.** Dragging away from previous direction line to create a "C" curve **C.** Result after releasing mouse button

- To create an "S"-shaped curve, drag in the same direction as the previous direction line.



Drawing an S-shaped curve
A. Starting to drag new smooth point to create direction lines **B.** Dragging in same direction as previous direction line to create an "S" curve **C.** Result after releasing mouse button

5 Continue dragging the pen tool from different locations to create additional smooth points.

6 Complete the path by doing one of the following:

- To close the path, position the pen tool over the first (hollow) control point. A small loop appears next to the pen tip when it is positioned correctly. Click or drag to close the path.
- To leave the path open, Ctrl-click (Windows) or Command-click (Mac OS) anywhere away from all objects, or choose Edit > Deselect All, or select a different tool in the toolbox.

Adjusting path segments

You can change the shape of a path by adding, deleting, or moving the path's control points. To adjust a curved segment, you move one or more of its control points or direction points. You can also adjust a path by converting smooth points to corner points and vice versa.

Adding, deleting, and converting control points

You can add or delete control points on any path. Additional control points can give you more control over the path or extend an open path. Similarly, you can delete control points to change the shape of a path or to simplify the path. It's a good idea to delete any unnecessary points to reduce the complexity of the path.

To add or delete a control point:

1 Using the pen selection tool, select the path you want to edit.

2 Select the pen tool.

3 Do one of the following:

- To add a control point, position the pointer over a path segment and click. The angled slash next to the pointer becomes a plus when it's positioned over a path segment.
- To delete a control point, position the pointer over a control point and click. The angled slash next to the pointer becomes a minus when it's precisely positioned over a control point.

To delete a starting control point:

Select the starting control point with the pen selection tool and press the Delete key.

To extend an open path:

1 Using the pen selection tool, click the path you want to extend.

2 Position the pointer over the endpoint of the open path you want to extend.

3 Click the endpoint. If you want to lengthen the end line segment, drag the pointer.

4 Select the pen tool.

5 Do one of the following:

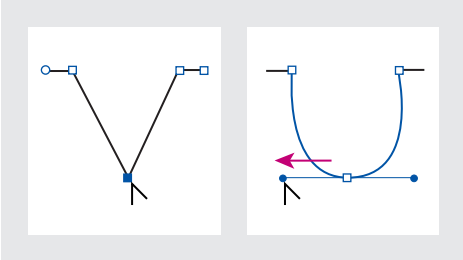
- To create a corner point, position the pen tool where you want to end the new segment, and click. If you are extending a path that ends at a smooth point, the new segment will be curved by the existing direction line.
- To create a smooth point, position the pen tool where you want to end the new curved segment, and drag.

To switch between smooth points and corner points:

1 Using the pen selection tool, click the path you want to modify.

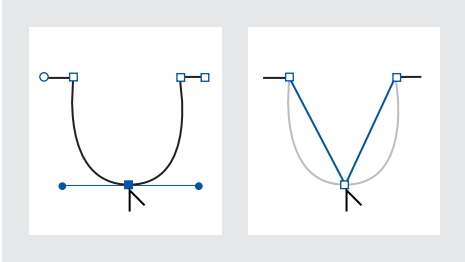
2 Position the pointer over the control point you want to convert, and press Alt (Windows) or Option (Mac OS). The pointer changes to a hollow arrowhead.

- To convert a corner point to a smooth point, click the point and drag through 45 degrees away from the required curve direction.

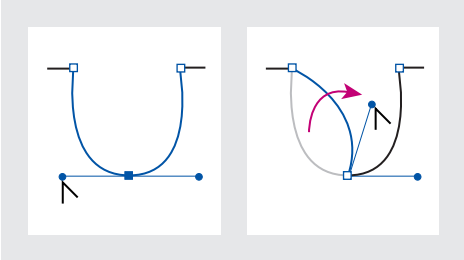


Dragging direction point out of a corner point to create a smooth point

- To convert a smooth point to a corner point, click a smooth point, and drag through 180 degrees towards the required curve direction.



Clicking a smooth point to create a corner point



Dragging to convert a smooth point to a corner point.

Adjusting straight and curved segments

You can modify the shape of a path by moving any of its control points or by moving the direction points of direction lines attached to a curve segment. Editing existing segments is slightly different from drawing them. Keep the following guidelines in mind as you adjust existing segments:

- If a control point connects two segments, moving that control point changes both segments.
- When drawing with the pen tool, you can temporarily activate the pen selection tool by holding down Ctrl (Windows) or Command (Mac OS) so that you can adjust segments you've already drawn.
- When you draw a smooth point with the pen tool, dragging the direction point changes the length of the direction line on both sides of the point. However, when you edit an existing smooth point with the pen selection tool, you change the length of the direction line only on the side you're dragging.

To adjust a straight segment:

With the pen selection tool, drag the control point on either end of a segment.

To adjust a curved segment:

1 Using the pen selection tool, select the control point on either end of a curved segment. Direction lines appear on the control point.

2 Do one of the following:

- Drag the control point.

- Drag a direction point. If you're adjusting a smooth point's direction lines, both direction lines revolve around the control point.

To split the direction lines of a smooth point, position the pen selection tool over a direction line, then hold Alt/Option. The pointer changes to a hollow arrow point and you can move the direction lines separately.

Chapter 3: Creating Text Objects

LiveMotion lets you add text to compositions with flexibility and precision. You can create and edit text directly on-screen and quickly change the font, style, size, and color of the text.

Using text in compositions

LiveMotion offers two ways of adding text—by clicking once in the composition window and entering text (Point text), and by dragging in the composition window to create a bounding box into which you enter text (Paragraph text).

Adding point text

Point text will appear in a bounding box after it is entered. This bounding box is determined by the size of the text in it. Line breaks will be added only when you press Enter or Return.

To enter point text:

1 Select the type tool T.

2 Click in the composition to set an insertion point for the text. The small line through the I-beam marks the position of the text *baseline*.

3 Enter your required text. Press Enter or Return to begin a new line.

Adding paragraph text

Paragraph text wraps automatically to fit in the bounding box. The size of the text object is determined by the bounding box. You can use paragraph text in your Web pages to add text in a specific, constrained area, for example, in a banner.

To enter paragraph text:

1 Select the type tool T.

2 Drag in the composition to create a bounding box.

3 Enter text in the bounding box.

If the amount of text is too large to fit in the bounding box, a text overflow handle will appear in the lower right corner of the box. You can drag one of the handles of the bounding box to resize it so all the text is visible.

Once you have entered text, you can apply different format options. See "Formatting text" on page 32

Editing text in a composition

You can insert new text and change existing text using the type tool.

To edit text:

1 Select the type tool T.

2 Click to select the text flow that you want to edit.

3 Do one of the following:

- Select the characters you want to edit.
- Click in the text flow to add text.

Using text fields

You can use the text field tool to create text fields for Flash output. When you add text field, the field is assigned a variable that you control through scripting. The text field options in the Properties palette determine the behavior of the text in the text field, as well as how the text field acts on export. Text entered in text fields is created and edited the same way as point and paragraph text.

Adding text fields

Text fields are added by creating a bounding box with the text field tool.

To add a text field:

1 Select the text field tool.

2 Click and drag to create the bounding box of the text field.

3 Begin typing in the text field to add text.

Setting text field options

The Properties palette contains several options you can set to define the behavior of the text field. The following options are set in the Properties palette:

Allow Input Allows users to enter text in the text field in the exported SWF file.

Export Text Field as HTML Interprets text in a text field as HTML code.

Variable Contains the variable name for a text field. For more information, see the Adobe LiveMotion 2.0 Scripting Guide.

Read HTML <<ICON>> Select to hard-code HTML into a text field. Any text in the text field will be interpreted as HTML.

Limit <<ICON>> Enter a value to limit the number of characters a user can enter into a text field in an exported SWF file.

Make Text Selectable Allows users to select the text in the text field in an exported SWF file.

The following options are set in the Properties palette menu. To turn the options on or off, select them in the Properties palette menu.

Show Border/Background Select to add a black border around a white text field.

Single Line Sets text field to a single-line field; text will not wrap in the field.

Multi-Line Sets text field to a multi-line field; text wraps to fit the text field.

Password Masks text characters with dots to keep passwords entered in Web pages secure.

Formatting text

Adobe LiveMotion gives you precise control over text attributes, including font, text size, leading, tracking, alignment, and rotation. Selected attributes can be applied to the entire text object.

To apply most text attribute changes to a text, you must first select the text. You can apply the following text attributes:

Font A font is a complete set of characters, letters, and symbols of a particular typeface design. In addition to choosing a font, you can choose a type style (for example, Regular, Bold, or Italic) if that style is included in the font family. The range of available type styles varies with each font.

Size The size determines how large the text appears in the image. The default text size is 48 points, where one point is equal to 1/72 of an inch in a 72-ppi image.

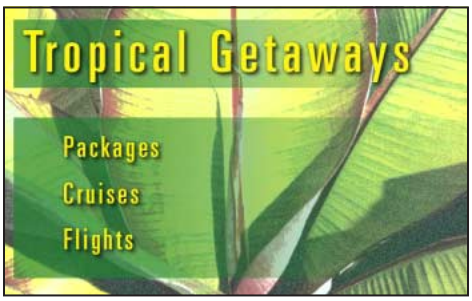
Outlining Outlining lets you display text as an outlined, rather than filled, object. The Outline option works only with vector (TrueType® or PostScript®) fonts, not bitmap (screen) fonts. If you select a bitmap font, this option is disabled.

Leading Leading specifies the spacing between adjacent baselines and is measured as a percentage of the point size.

Tracking Tracking applies uniform spacing between characters in the text object.

Positive tracking values move characters apart; negative values move characters together. Tracking values are measured in units that are 1/100 of an *em space*. The width of an em space is equal to the width of the lowercase letter *m* in the current font and text size.

20-point text set to default



20-point text with 200% leading and a tracking value of 40

Alignment Alignment controls the orientation of characters and lines of text. Horizontal orients characters next to each other, with each new line below the previous one.

Baseline Shift Baseline Shift an either raise type (superscript) or lower type (subscript) from the baseline.

Kerning Kerning sets the space between specific letter pairs. You can adjust this to increase or reduce the space between selected letters.

Faux Bold Faux Bold creates a simulation of bold font styles when a chosen font does not have a bold style option.

Faux Italic Faux Italic creates a simulation of italic font styles when a chosen font does not have a italic style option.

Anti-Alias Anti-aliasing produces smooth-edged text by partially filling the edge pixels.

Selecting text for formatting

Before you can format individual characters, you must select them. You can select one character, a range of characters, or all characters in a text layer.

To select characters:

1. Select the type tool T.
2. Click in the text flow to select it.
3. Position the insertion point in the text, and drag to select one or more characters.

Applying text formatting

The formatting options help you customize text objects in your composition.

To set text attributes:

1. Select the text and choose Window > Properties to display the Properties palette.
2. Specify type attributes in Properties palette:

- For Font, choose a font family. Choose a type style from the menu to the right of the Font menu.
- For Size, enter a value for the font's size.
- To create outlined type select Outline and enter a value in 1/4 pixel units for the stroke (outline) width.
- For Leading, enter a value. <<limits? **Still TBD as of 8/31**>>
- For Tracking, enter a value. <<limits? **Still TBD as of 8/31**>>
- Select a horizontal or vertical alignment option. The left or top alignment option begins each line of text at the left or top edge of the bounding box. The center alignment option centers the text in the bounding box. The right or bottom alignment option ends each line with the right or bottom edge of the bounding box.

Choosing a font and font style

When you select a font, you select the *font family* and its *type style* independently. The font family is a collection of fonts sharing an overall typeface design; for example, Times. A type style is a variant version of an individual font in the font family, for example, Regular, Bold, or Italic. The range of available type styles varies with each font. If a font doesn't include the style you want, you can apply *faux* (fake) versions of bold and italic.

Note: *A faux font is a computer-generated version of a font that approximates an alternative typeface design, used only if no corresponding font for a given faux treatment is available.*

To choose a font and style:

1 Select one or more characters whose font you want to change.

2 In the Properties palette, choose a font from the font pop-up menu.

3 Choose a font style from the Font Style pop-up menu.

If the font you chose does not include a bold of italic style, choose Faux Bold or Faux Italic, or both, from the Properties palette pop-up menu.

To choose a font size:

1 Select one or more characters whose size you want to change.

2 In the Properties palette, enter or select a new value for Size.

The *type size* determines how large the text appears in the image. The default unit of measurement for text is *points*, which is approximately 1/72 of an inch in a 72-ppi image. The physical size of the font depends on the resolution of the image. 72-point text is approximately 1-inch high in an image that is 72 dpi.

The default text size is 48 points.

To adjust the font size by dragging:

1 <<You're going to need to put a note about how to adjust the size if you're animating the size changes--do it one way and it makes a huge file, another way and it makes a small file. cross ref to my section in exporting on optimizing. See page 148 of the manual for what I mean>>

2 Select the text in the Composition window.

3 Do either of the following:

- Drag any handle except the side handles and the top right handle to change the font size of the text.
- Shift-drag any of the corner handles except the top right one to constrain the text to the aspect ratio of the original font.

Changing the text color

The text you enter gets its color from the current foreground color; however, you can change the text color after you enter text using the Color palette.

To change the text color:

1 Select one or more characters whose color you want to change.

2 Choose Window > Color to view the Color palette.

3 Use the selection tool to click a color in the Color palette to select it.

The selected color is applied to the text.

Aligning text

You can *align* text to change its relationship to the initial cursor position (where you clicked when you first entered the text). Alignment affects all text in a text flow—you cannot align some characters, but not others.

To specify alignment:

1 Select the text flow.

2 In the Properties palette, choose an alignment option by clicking an alignment button.

Anti-aliased text

Text in Adobe LiveMotion is automatically anti-aliased. Anti-aliasing produces smooth-edged text by partially filling the edge pixels. As a result, the edges of the text blend into the background. Anti-aliasing can make small text sizes appear more readable when viewed online.

When creating text for online use, consider using larger text than you would for printed works. Because the resolution of monitors is low, larger text can be easier to view online.

To turn anti-aliasing off:

Choose Anti-Aliasing from the Properties palette pop-up menu.

Converting text objects

Adobe LiveMotion lets you create text objects and separate the individual characters into distinct text objects while retaining their alignment and kerning. You can then work with them like any other object, and animate them individually. The characters remain fully editable.

At some point, you may want to convert a text object into a vector shape. When you convert text into a shape object, the text is no longer editable using the text tools.

To convert text objects into characters:

1 Create a multicharacter text object using the text tool T.

2 Select the text object.

3 Choose Object > Convert Into> Objects.

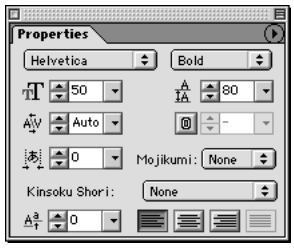
To convert text objects into shape objects:

1 Select the text object.

2 Choose Object > Convert Into > Path.

Setting options for Chinese, Japanese, and Korean (CJK) fonts

LiveMotion provides several options for working with Asian fonts, which are often referred to as *double-byte fonts* or *CJK fonts*. The Properties palette helps you use Asian font options.



Properties palette menu

Adjusting tsume

Tsume reduces the space around a character by a specified percentage value. The character itself is not stretched or squeezed, rather the space around the character is compressed. When tsume is added to a character, spacing around both sides of the character is reduced by an equal percentage.

To reduce spacing between characters:

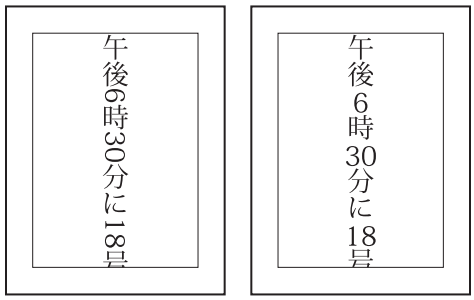
1 Select the characters you want to adjust.

2 Enter or select a percentage for Tsume in the Properties palette, and click OK.

The greater the percentage, the less space between characters. At 100% (the maximum value), there is no space between the character's bounding box and its em box. (An em box is a space whose height and width roughly correspond to the width of the letter "M," also called a mutton.)

Using tate-chuu-yoko

Tate-chuu-yoko (also called *kumimoji* or *renmoji*) is a block of horizontal text laid out within a vertical text line. Tate-chuu-yoko is useful for displaying non-Asian characters in the correct orientation in a text flow.



Apply tate-chuu-yoko to correct the orientation of non-Asian characters.

To turn tate-chuu-yoko on or off:

1 Select the characters that you want to rotate.

2 Select Tate-Chuu-Yoko from the Properties palette menu.

Note: *Using tate-chuu-yoko does not prevent you from editing and formatting text; you can edit and apply formatting options to rotated characters as you do to other characters.*

Using mojikumi

Mojikumi determines spacing between punctuation, symbols, numbers, and other character classes in Japanese text. When mojikumi is off, full-width spacing is applied to these characters. When mojikumi is on, half-width spacing is applied to these characters.

Mojikumi on, and Mojikumi off

To turn mojikumi on or off:

1 Select the characters you want to work with.

2 Select a set from the Mojikumi menu in the Properties palette.

Using Kinsoku Shori

Kinsoku Shori determines line breaks in Japanese type. Characters that cannot begin a line or end a line are known as *kinsoku* characters. There are three different methods for keeping kinsoku characters from beginning or ending a line:

Oidashi Moves kinsoku characters down to the next line.

Oikomi Moves kinsoku characters up to the previous line.

Burasagari Allows single-byte periods, double-byte periods, single-byte commas, and double-byte commas to fall outside the paragraph bounding box to make room for adjustments made for kinsoku characters.

To turn Oidashi, Oikomi, or Burasagari on or off:

1 Select the characters you want to work with.

2 Select Oidashi, Oikomi, or Burasagari from the Properties palette menu.

Chapter 4: Working with Objects

Editing, arranging, and grouping objects is easy in Adobe LiveMotion. LiveMotion tools let you accurately measure, align, arrange, and move objects.

Editing objects

Before you can edit an object, you need to select it LiveMotion offers several selection tools:

- The selection tool lets you select entire objects by clicking anywhere on the object.
- The drag-selection tool lets you drag to select and move objects that are hidden by other objects. You also use this tool to select objects that are in front of other objects you don't want to select.
- The subgroup-selection tool lets you select individual objects within a group, or subgroups of objects within a group. Each additional click selects the next lower subgroup or object in the grouping. (See "Grouping objects" on page 47.)

Selection handles appear on objects as they are selected. Once you have selected an object, you can select a specific layer of that object to modify. For information on selecting layers, see "Using the Object Layers palette" on page 69.

To select an object:

1 Choose the selection tool, drag-selection tool, or subgroup-selection tool.

2 Do one of the following:

- Click the object with the selection or group-selection tool.
- Drag a rectangle, called a *marquee,* around the entire bounding box of the object you want to select.

To select multiple objects:

Do one of the following:

1 Choose the selection tool, subgroup-selection tool, or drag-selection tool.

2 Do one of the following:

- Click to select an object. Shift-click to select additional objects.
- Drag a marquee over the entire bounding box of an objec.t. Shift-drag to select additional objects.

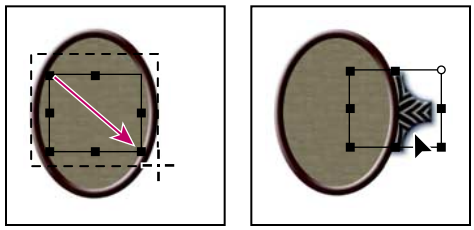
To select all objects in a composition:

Choose Edit > Select All to select all objects.

To select an object or objects hidden behind another object:

1 Select the drag-selection tool.

2 Drag a marquee over the entire bounding box of the object or objects you want to select.



Drag the drag-selection tool to select and move an object that is under another object.

To or deselect all objects in a composition:

To deselect all objects in a composition, do one of the following:

- Choose Edit > Deselect All.
- Click in any empty area of the composition.

Stacking objects

Adobe LiveMotion stacks objects, beginning with the first object created, opened, or imported. The stacking order (z-order) determines how objects are displayed when they overlap.

Grouped objects inherit the stacking order of the foremost object in the group (*see "Grouping objects" on page 47*) You can change the stacking order of objects in your composition at any time.

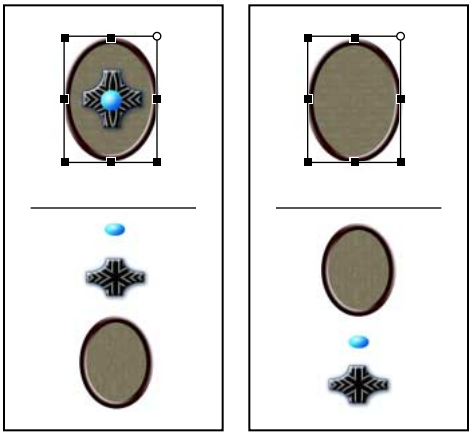
To change the stacking order:

1 Select the object you want to move.

2 Do one of the following:

- To make an object the frontmost object, choose Object > Arrange > Bring to Front.
- To make an object the backmost object, choose Object > Arrange > Send to Back.
- To move an object one level to the front, choose Object > Arrange > Bring Forward.

- To move an object one level to the back, choose Object > Arrange > Send Backward.



Selected object is at bottom of stack. Bring to Front command moves object to front of stack.

Note: *If an object is obscured by the object above it, use the drag-selection tool . to select the hidden object.*

Moving objects

You move objects by dragging them, using the arrow keys, or using the Transform palette. For information about the Transform palette, see "Transforming objects" on page 49.

To move an object by dragging:

1 Select the object. Shift-click to select additional objects.

2 Drag the object to its new location. Shift-drag to constrain the movement to multiples of 45 degrees.

To move an object using the arrow keys:

1 Select the object.

2 Press the arrow key for the direction in which you want to move the object. Press the Shift key to move the objects 10 pixels with each press of the arrow key.

To move an object using the Transform palette:

1 Choose Window > Transform.

2 Select the object in the composition.

3 Do any of the following in the Transform palette:

- To move the object horizontally (along the *x* axis), enter a value for *x*. A lower number moves the object to the left; a higher number moves it to the right; entering 0 places it against the left edge of the work area.
- To move the object vertically (along the *y* axis), enter a value for *y*. A lower number moves the object up; a higher number moves it down; entering 0 places it against the top edge of the work area.

Duplicating objects

Duplicating an object in a composition creates an exact copy of the object.

To duplicate an object:

1 Select the object to be duplicated.

2 Do one of the following:

- Choose Edit > Duplicate to create a duplicate on top of the original, and move the new object as desired.
- Alt-drag (Windows) or Option-drag (Mac OS) the object to duplicate and place the new object in one step.

Creating object aliases

When you duplicate an object, you create a copy of the object and the copy becomes an independent object. Changing the original object has no effect on the copy. When you duplicate an object by creating an alias, however, any change to the original object is reflected in the copy also. When you make an alias to an object, both objects become aliases to each other. Duplicating objects by creating aliases is particularly useful.

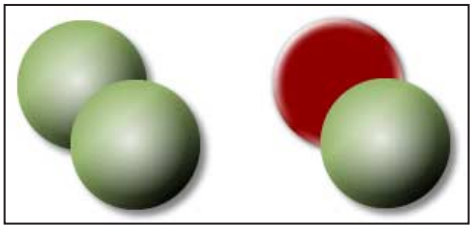
You can edit or modify an alias independently of the original by unlinking the alias from its parent.

To create an alias of an object:

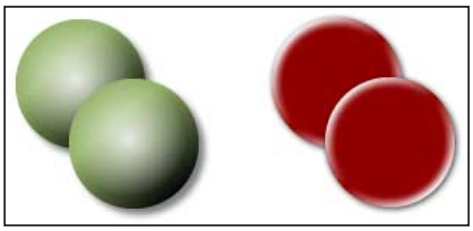
1 Select the object for which you want to create an alias.

2 Do one of the following:

- Choose Edit > Make Alias.
- Shift+Alt-drag (Windows) or Shift+Option-drag (Mac OS) the object.



Original with duplicate and after modifying original. When the original is modified, a duplicate object remains unchanged.



Original with alias and after modifying original. When the original is modified, the alias is modified automatically.

To unlink an alias:

1 Select the alias you want to unlink.

2 Choose Edit > Break Alias.

Because an alias is a reference to the original object, using aliases can speed up redrawing of objects, minimize the file size of a composition, and save time when updating Web pages.

Cutting, copying, and pasting objects

The Cut command removes an object that can then be pasted elsewhere. The Delete command removes the object permanently. You can also use the Copy and Paste commands to copy and paste objects between Adobe applications.

For more information on alternative ways to copy, see "Copying and pasting images and other selections" on page 60.

To cut and paste an object:

1 Select the object you want to cut and paste.

2 Choose Edit > Cut.

3 Do one of the following:

- To paste a cut or copied object in the same composition or into another LiveMotion composition, choose Edit > Paste.
- To paste a bitmap image of a cut or copied object into another Adobe application, open the destination application and document. Then choose Edit > Paste.

For more information on exporting objects into other applications see "About exporting" on page 140.

To copy an object:

1 Select the object you want to copy. Shift-click to select additional objects.

2 Choose Edit > Copy to copy of the object.

Note: If no objects are selected, the entire composition is copied.

Copying and pasting object attributes

The Paste Special commands let you copy various attributes from one object to another.

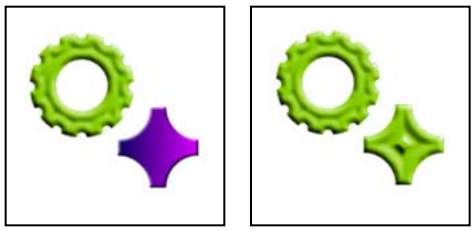
To copy and paste an object's attributes:

1 Select and copy the object whose style or attributes you want to apply to another object.

2 Select the object or object layer to which you want to apply the style or attributes.

3 Choose one of the following from the Edit menu:

Paste Style Applies the style of the copied or cut object to the selected object.



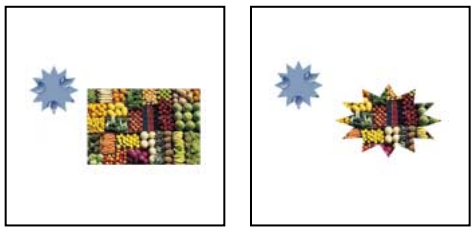
Style attributes of the first object copied and pasted to the second object.

Paste Object Animation Applies animation to the selected object.

Paste Scripts Pastes a script into the composition. See the Adobe LiveMotion 2.0 Scripting Guide for information on scripts.

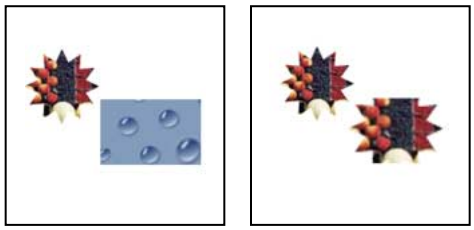
Paste Special> Paste Active Matte Applies the shape of the copied or cut object to the selected image object.

Note: *This command works only on image objects.*



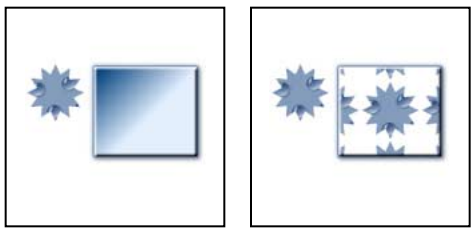
Before and after active matte pasted from first object

Paste Special > Paste Image Crops and scales the copied image or object to the selected object's bounding box. If no object is selected, the image is pasted as a new object.



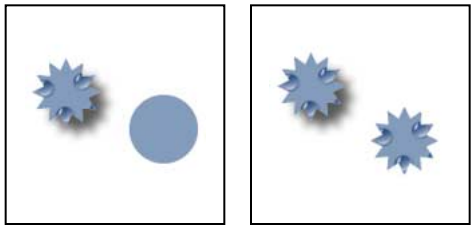
Before and after image pasted from first object

Paste Special > Paste Texture Applies the copied or cut object as a texture to the selected object. If no object is selected, the texture is applied to the background.



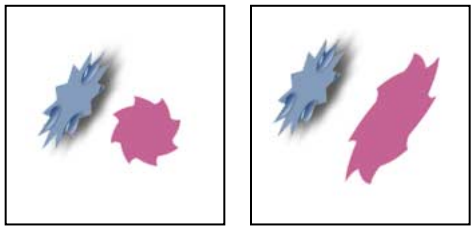
Before and after texture pasted from first object

Paste Special > Layer Applies the attributes of the selected layer of the copied or cut object to the selected object.



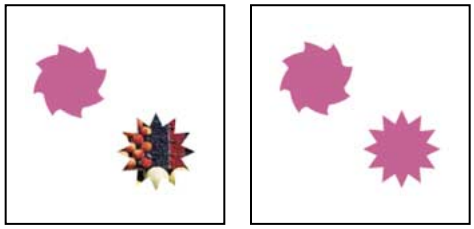
Before and after layer attributes pasted from first object

Paste Special > Transformations Applies the rotation and skew of the copied or cut object to the selected object.



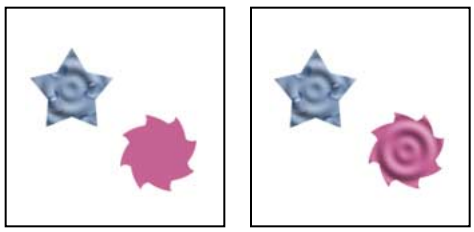
Before and after transformations pasted from first object

Paste Special > Fill Applies the fill color, image, texture, or background, as well as the gradient, and tint of the copied or cut layer to the selected layer.



Before and after fill color pasted from first object

Paste Special > Effects Applies the 3-D and Distort palette settings used with the copied or cut layer to the selected layer.



Before and after effects pasted from first object

Paste Special > Properties Applies the Properties palette settings of the copied or cut object to the selected object.

Before and after properties pasted from first object

Undoing and redoing changes

You use the Undo command to undo many types of editing commands in LiveMotion. If an operation cannot be undone, the Undo command is dimmed. In this case, you can use the File > Revert command to revert to the version that was last saved (but not if you closed and then reopened the file).

You can also use the History command to undo or redo a series of changes you've made to a composition. By selecting an action in the History menu, the composition will revert back to its previous state.

To undo or redo an operation:

Choose Edit > Undo, or Edit > Redo.

To undo or redo operations using the History command:

Choose Edit > History, and select the state you want to revert back to.

Using rulers

LiveMotion displays one ruler along the top and one ruler along the left side of the composition window. You use these rulers to accurately place and measure objects in a composition. As you move around the composition, the rulers adjust accordingly.

The point where 0 appears on each ruler is called the ruler origin. You can change the origin for the rulers at any time. When you change the ruler setting, the new setting becomes the default for the file whenever that file is opened.

To show or hide rulers:

Choose View > Show Rulers.

To snap the ruler origin to guidelines or gridlines:

1 Choose View > Show Guides or View > Show Grid.

2 Choose View > Snap to Guides or View > Snap to Grid.

To reset the ruler origin to its default value:

Double-click the origin box in the upper left corner of the window.

Using guides and grids

When displayed, guides appear as lines that float over the entire composition in front of objects. You use guides to help in positioning objects in the composition; guides neither print nor export. You can move or delete a guide. You can also lock a guide to avoid accidentally moving it.

Guides and grids behave similarly:

- Objects snap to a guide or ~~the~~ grid when dragged within 8 pixels. Guides also snap to the grid when moved. You can turn this feature on and off.
- Guide spacing, guide, and grid visibility, and snapping behavior are specific to a file.
- Grid spacing, guide, and grid color and style are the same for all files.

To show or hide guides or the grid:

Choose View > Show Guides or Show Grid.

To place a guide:

With the rulers displayed, do one of the following:

- Drag from the horizontal ruler to create a horizontal guide.
- Drag from the vertical ruler to create a vertical guide.

To move a guide:

Select the guide, and drag the guide to its new position.

To lock all guides:

Choose View > Lock Guides.

To delete a guide from the composition:

Select the guide while holding down Ctrl (Windows) or Command (Mac OS), and drag the guide out of the composition area and back to the ruler.

To clear all guides:

Select View > Clear Guides.

To turn snap to guide or snap to grid behavior on or off:

Choose View > Snap to Guides or Snap to Grid.

To set grid preferences:

1 Choose Edit > Preferences.

2 Set the gridline spacing and subdivisions using the Grid sliders or by entering values directly in the text boxes.

Aligning and distributing objects

The Align commands let you align selected objects along the axis you specify. The Distribute commands let you spread objects evenly along the horizontal axis or vertical axis.

To align or distribute objects:

1 Select the objects to align or distribute.

2 Do one of the following:

- Choose Object > Align > Left, Right, Top, or Bottom to align the selected objects along the left, right, top, or bottom edge of the selected object. For example, the Align > Left command aligns all objects along the left edge of the far left selected object.
- Choose Object> Align > Horizontal or Vertical Centers to align centers of selected objects midway between the left edge of the left most object and the right edge of the right most object (Horizontal), or the top edge of the topmost object and the bottom edge of the bottommost object (Vertical).
- Align > Centers aligns the objects at the center of all selected objects.
- Distribute > Horizontal or Vertical spreads selected objects evenly along the horizontal or vertical axis so their centers are equidistant.

Grouping objects

You can group any number of objects so that the objects are treated as a single unit. You can then move or transform the objects without affecting their positions relative to one another or their attributes. For example, you might group the objects in a navigator bar design so that you can move and scale the navigator bar as one unit.

Groups have these properties:

- Groups can be nested—that is, they can be grouped within other objects or groups to form larger groups.
- New groups are at the top of the stacking order.

To group or ungroup objects:

1 Select the objects to be grouped or ungrouped. For information on how to select groups, see "Editing objects" on page 38.

2 Choose Object > Group or Object > Ungroup.

To select objects within a group:

1 Select the subgroup-selection tool, and click the subgroup, or object you want to select.

2 Click the same place again to select successive subgroups until the subgroup or individual object you want is selected.

Selection handles appear on subgroups and objects as they are selected. A thick border appears around the group or subgroup to which the selected subgroup or object belongs.

Maintaining grouped text formatting

The Maintain Alignment command maintains the alignment of text with other objects to which it is grouped. When the text is changed, or its size, tracking, font, or style is changed, the text is realigned within the group or the objects in the group are resized as needed. For example, you could group a text object with a button. As you add text, the size of the grouped button would automatically be increased as necessary to accommodate the text. If there are aliases of the button, the size of the aliases will be increased by the same amount.

To maintain the alignment of grouped text:

With the group selected, choose Object > Maintain Alignment.

Converting into objects, sequences, and paths

Placed files often contain layers, including Illustrator and Photoshop files. Using the Convert Into commands, you can convert the layers into native LiveMotion objects, or sequences. You can also convert Illustrator EPS and AI files, PDF objects, and native and non-native text objects into paths.

To convert into an object, sequence, or path:

1 Select the component you want to work with.

2 Choose one of the following from the Edit > Convert Into menu:

Object Converts each individual layer of a placed file into a separate object. You can perform this operation more than once if each layer in the placed file has a sub-layer included in it. This command will also convert each character of a LiveMotion text object into separate objects.

Group of Objects Converts each individual layer, then groups the objects.

Sequence Converts each object of a layered file into one frame in an animated sequence.

Sequence with Background Converts a layered file into individual frames, but keeps the existing background in each frame.

Path Converts text objects into paths. Once the text objects have been converted, you can no longer edit them using the text tools. This command will convert imported text objects into paths as well as native LiveMotion text objects. Converted placed vector files (Illustrator EPS, and PDF) will no longer be editable using the Edit Original command.

Chapter 5: Transforming and Combining Objects

You can easily modify an object's size, orientation, or shape using Adobe LiveMotion tools and commands. With the Combine commands, you can combine multiple objects to create a single complex object.

Transforming objects

You can *transform* objects by selecting one or more objects and then applying various transformations to them. Objects are transformed around an anchor point. Using the transform tool or the selection tool will change the position or placement of an object. Using the Shape Transform command will change the shape of the object.

There are several ways to transform objects:

- With the selection tools, you can move, rotate, skew, and resize objects by dragging.
- With the Transform palette, you can move, rotate, and resize objects precisely by entering numerical values for the *x,y* coordinates.
- With the Flip Horizontal and Flip Vertical commands, you can flip objects to their mirror images.
- With the transform tool, you can view the transformations you make to your object as you make them. The transform tool also lets you change the control points of objects.

Defining an object's anchor point

All transformation actions are performed in relation to a fixed point, called an anchor point, on or around the object. The default anchor point is the object's center point. You can set a new anchor point, and you can also drag an existing anchor point to a new position. Anchor points will automatically snap to the center of bounding box, though you can temporarily disable snapping.

To change an object's anchor point:

1. Select the object.
2. Do one of the following:

- Select the transform tool, then drag the anchor point.
- Drag the anchor point near a handle of a bounding box to snap the anchor point to the center of the bounding box.
- Press Ctrl (Windows) or Command (Mac OS) and select the anchor point. Drag the anchor point.

To reset the anchor point:

Choose Object > Transform > Reset Anchor Point.

To temporarily disable anchor point snapping:

Press Option key while dragging the anchor point.

Rotating objects

Rotating an object turns it around its anchor point. When you add effects to an object before rotating it, the effects are also rotated. For example, if you rotate an object with a shadow, the shadow rotates with the object. You can keep the orientation of offset layers if you use the Shape Rotate command.

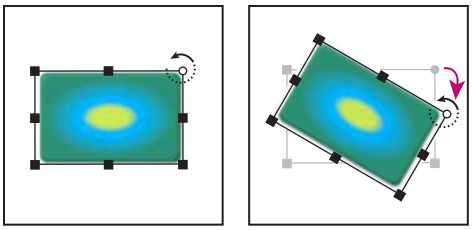
To rotate an object using the transform tool or the selection tool:

1 Select the transform tool or the selection tool .

2 Select the object you want to rotate.

3 Move the pointer over a handle of the object's bounding box until the pointer changes to a circle .

4 Drag a handle of the bounding box until the selection is at the desired angle of rotation. If you are using the transform tool, Shift-drag a handle to rotate in 15 degree increments.



Dragging with transform tool

To rotate an object using the Shape Transform command:

1 Select the object you want to rotate.

2 Choose Object > Transform > Shape Transform.

3 Move the pointer over a handle of the object's bounding box. The pointer changes to a circle .

4 Drag a handle of the bounding box until the selection is at the desired angle of rotation. Shift-drag a handle to rotate in 15 degree increments.

To rotate an object using the Transform palette:

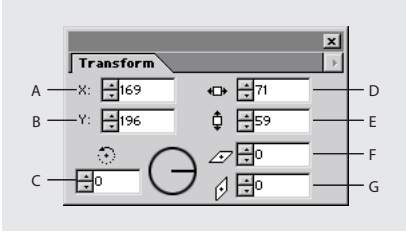
1 Select the object you want to rotate.

2 Choose Window > Transform.

3 Do one of the following:

- Drag the dial in the circle.

- Enter the angle you want to rotate the object. To rotate an object more than 360 degrees for an animation, enter a positive number greater than 360.



Transform palette
A. Location on the x axis **B.** Location on the y axis **C.** Angle of rotation **D.** Width
E. Height **F.** Number of pixels by which the object is skewed along the x axis
G. Number of pixels by which the object is skewed along the y axis

To flip an object:

1 Select the object you want to flip.

2 Do one of the following:

- Choose Object > Transform > Flip Horizontal to flip the object left to right.
- Choose Object > Transform > Flip Vertical to flip the object top to bottom.

Resizing objects

You can resize—that is, enlarge or reduce—an object relative to its anchor point.

To resize an object using the bounding box:

1 With the selection tool, select the object or objects to scale.

2 Drag a handle of the bounding box until the selection is the desired size. Shift-drag the handle to preserve the proportion of the object.

To resize an object using the Transform palette:

1 Select the object you want to scale.

2 Choose Window > Transform.

3 Do one of the following:

- Enter a value in the width text box and press Enter or Return.
- Enter a value in the height text box, and press Enter or Return.

Skewing objects

Skewing slants an object along the axis you specify. An object cannot be skewed vertically and horizontally at the same time.

To skew with the transform tool:

1 Select the transform tool.

2 Select the object you want to skew.

3 Position the pointer over one of side handles of the bounding box. The pointer changes to a skewed rectangle.

4 Drag the handle to skew the object.

To skew an object using the Transform palette:

1 Select the object you want to rotate.

2 Choose Window > Transform.

3 Do one of the following:

- To skew the object horizontally, enter a value between -75 and 75 degrees in the horizontal Skew text box. Entering a positive angle skews the top of the object to the right and the bottom to the left; entering a negative angle skews the bottom to the right and the top to the left.
- To skew the object vertically, enter a value between -75 and 75 degrees in the vertical Skew text box. Entering a positive angle skews the right side of the object up and the left side down; entering a negative angle skews the left side up and the right side down.

Undoing transformations

When LiveMotion transforms images, it keeps a copy of the original image in the file, along with any changes applied to it. This means you can restore an image to its original look, even after saving changes.

To undo all transformations applied to an object:

With the object selected, choose Object > Transform > Clear Transformations to undo all transformation applied since the last Save.

Modifying the properties of geometric shapes

The Properties palette lets you modify objects created with the rectangle, rounded-rectangle, ellipse, and polygon tools, even if they have a style applied to them. For example, you can convert an ellipse to a polygon, specify the number of sides, and choose whether to make it a solid shape or have an open center.

To modify the properties of a geometrically shaped object:

1 Select the object.

2 Choose Window > Properties.

3 Select a shape: rectangle, rounded rectangle, ellipse, polygon:

- For Rounded Rectangle, enter a value between 0 and 200 to specify the corners' radius in 1/4-pixel units. (The corner radius value represents the radius of a hypothetical circle drawn in the corner of the rectangle or square. A corner radius of zero creates square corners.)
- For Polygon, enter a value between 3 and 10 to specify the number of sides to the polygon.
- Choose whether the shape is solid or an outline. If you choose Outline to hollow out the object's shape, enter a value between 1 and 200 to specify the outline's width in 1/4 pixels. The higher the value entered, the wider the line will appear.

Note: *Although a computer monitor does not display objects in 1/4-pixel resolution, this pixel value helps determine how anti-aliasing is applied to the object, to give the appearance of finer or heavier lines.*

Cropping objects

Cropping is the process of selecting and reducing the visible portion of an object using the crop tool. The crop tool also lets you move a bitmap image within a matte.

An object that has been cropped can be uncropped at any time, even after the file has been closed and reopened, by using the crop tool to extend the visible area back to its original boundaries.

Note: *Any object that has been cropped with the Crop tool will become a bitmap when exported to the SWF file format. To maintain objects as vector, use a matte instead of the crop tool to reduce the visible area of the object.*

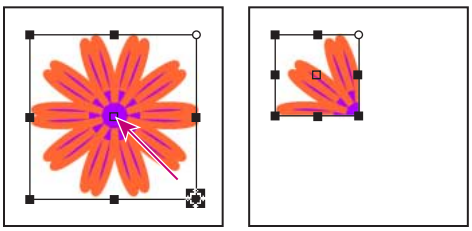
To crop an object and move an image within a matte using the crop tool:

1 Select the object you want to crop.

2 Select the crop tool.

3 Position the pointer over one of the handles on the selected object. The pointer changes to a set of direction arrows. Do one of the following:

- Drag to resize the visible part of the object.



Dragging crop tool over selected object and result

- Use the hand tool to move the visible part of the image within the crop area.

Applying mattes

A matte is a transparent shape that defines the visible area of an a separate image. Any part of the image that is within the matte's area is visible; any part that is outside the matte is invisible. A matte that is currently applied to an image object is called the *active matte*. You can use the Properties palette to apply a matte to an imported image object, cropping the image object to the shape of the matte.

To crop an image object using a matte:

1 Select the image object.

2 Choose Window > Properties.

3 Select Active Matte to use a shape to mask the image.

You can add an active matte by using the Matte option in the Library palette or by dragging a shape from the Library palette or an EPS file from a folder onto the Active Matte display in the Properties palette. The active matte's shape is scaled to the size of the image.

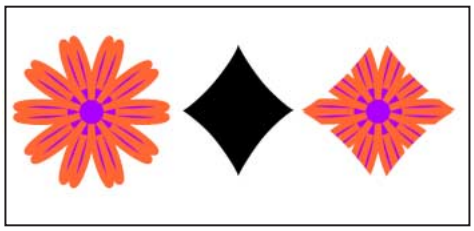


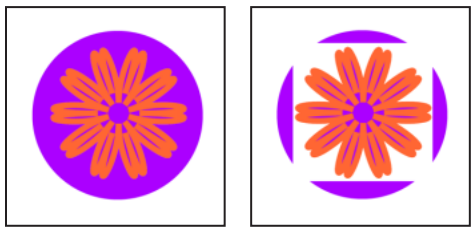
Image object, matte, and matte applied to image object

Note: *If the image has a native alpha channel, the alpha channel and the active matte are combined to create a matte.*

Using alpha channels

Depending on the format and how the image was created, an image may contain an *alpha channel*. An alpha channel is a grayscale image that is added to the color channels (such as the red, green, and blue channels in an RGB image) that make up the image.

You can use an alpha channel to create and store a matte. As with a matte, an alpha channel enables you to define a shape for the image object. For example, an image of a flower displayed without an alpha channel might be shown in a white rectangle, which would show up against a colored background. By using an alpha channel in the shape of that flower, only the flower is visible.



Original image with alpha channel (left) and without (right).

To use alpha channels:

1. Select the image object.
2. Choose Window > Properties.
3. Select one of the following:

- No Alpha if you want the image to retain its original shape out to the edges of the selection border. If the image is not rectangular, the remaining area out to the edges of the selection border is filled with white.
- Use Alpha Channel to use the image's alpha channel as a matte, if the image was imported with one.
- Build Alpha From Image to create an alpha channel using the luminosity of the color in the image. With color images, the effect is equivalent to converting the color to

grayscale, and using the grayscale as the alpha channel. However, this option is most useful for removing the white background from simple, black-and-white line drawings and for using a grayscale drawing as a shape.

Making group masks

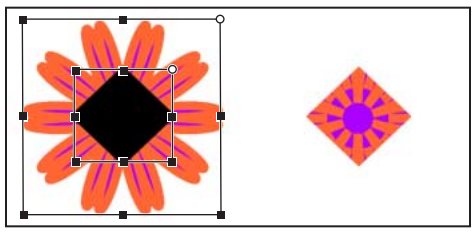
A group mask creates a mask shape from the top object of a group. Any area of the other grouped objects that is covered by the top object becomes visible when the mask is applied; all other areas of the group become invisible. You can use this effect in animations, for example, to make it look as though objects are moving under or behind the background.

To create a group mask:

1 Select the objects you want to group. Make sure that the object that you want to use as a mask is at the top of the group's stacking order.

2 Choose Object > Group.

3 Choose Object > Top Object Is Mask.



Grouped objects, and with the top object as the group mask

Combining objects

A combined object consists of two or more overlapping objects merged into a single image object. The Combine commands enables you to create objects that have transparent interior spaces where the original objects overlapped (for example, a window frame or a donut shape). This method lets you create objects more complex than you could easily create using the drawing tools.

A combined object has these properties:

- The objects created by the Unite, Minus Front, Intersect, and Exclude commands have the same style attributes as the bottommost object being combined.
- If a text object is part of the combined object, the text can still be edited. If more than one text object is part of the combined object, only the topmost text object can be edited.
- You can uncombine objects in a LiveMotion file at any time, even after the file has been closed and reopened. The separate objects retain their separate style attributes.

To create a combined object:

1 Make sure the objects you want to see through are in front of the background object in the stacking order.

2 Select all of the objects you want to include in the combined object.

3 Choose Object > Combine.

4 Choose one of the following Combine commands:

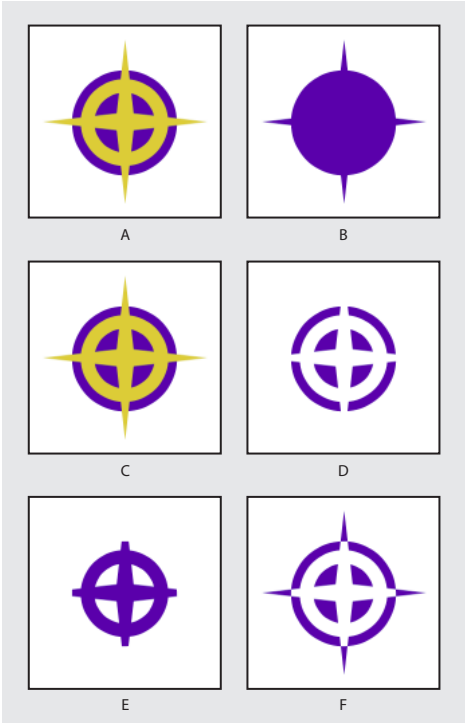
Unite Creates a single image object from two or more objects, retaining the style of the backmost object. It traces the outline of all selected objects as if they were a single, merged object.

Unite with Color Creates a single image object from two or more objects, retaining the styles of the separate objects. It traces the outline of all selected objects as if they were a single, merged object.

Minus Front Creates a single image object by subtracting the front most objects from the backmost object. You can use this command to delete areas of the objects by adjusting the stacking order.

Intersect Creates a single image object from the common area shared by the selected objects. It traces the outline of all overlapping shapes in the selected objects, ignoring any nonoverlapping areas.

Exclude Creates a single image object by knocking out the area where one shape overlaps another. It traces all nonoverlapping areas of the selected objects, making overlapping areas transparent. In the areas where an even number of objects overlap, the overlap is made transparent; anywhere an odd number of objects overlap, the overlap is filled.



Combine options
A. Original **B.** Unite **C.** Unite with Color **D.** Minus Front **E.** Intersect **F.** Exclude

To uncombine a combined object:

1 Select the combined object.

2 Choose Object > Uncombine.

Chapter 6: Placing Images and Other Objects

You can easily place artwork created in an image-editing or illustration application, such as Adobe Photoshop or Adobe Illustrator, into Adobe LiveMotion. Once placed in a composition, you can modify placed artwork just as you would objects created in Adobe LiveMotion.

You can place images created in other applications in various ways:

- The Place command lets you place images into an existing composition.
- The Replace command lets you replace a previously placed graphic with a new graphic.
- The Paste command lets you transfer artwork to a composition using the Clipboard.
- The drag-and-drop feature lets you drag images from your desktop or other open Adobe applications into Adobe LiveMotion. You can drag and drop any file that can be placed with the Place command or pasted with the Paste command.

About placing images

Note the following when placing images:

- LiveMotion keeps placed images in their native format (or an equivalent lossless representation) in the LiveMotion file.
- Vector graphics remain vectors and can be scaled without losing quality.
- LiveMotion can place images in Encapsulated PostScript (EPS) format (up to Language Level 3), PDF format, and Adobe Illustrator (version 7 through 10).
- To place an Illustrator 9 or Illustrator 10 file, it must be saved using the "Preserve PDF Data" option.
- Some vector graphics, such as gradient meshes, gradients with more than 8 colors, and live effects including drop shadows, can't be represented by native Flash objects, and so will export to SWF as bitmap images. (See "Optimizing your compositions" on page 143.)
- Bitmap images are converted to pixel-based image objects.
- Bitmap images in GIF, JPEG, PNG, BMP and DIB (Windows), PICT (Mac OS), and Photoshop formats can be placed.
- Compressed bitmap image files retain their compression—thus reducing file and memory size.
- Uncompressed formats give you the best output. This is true regardless of the export format. The higher the quality of the source image, the better the quality of the exported image.
- There is no limit on the resolution images placed in LiveMotion. However, you should be aware of the size, in pixels, of the images you place into LiveMotion. While it is

important to place high quality images into LiveMotion, placing excessively large image files will degrade LiveMotion's performance.

- If you are using a file as a source for a LiveMotion composition, save that file with compatibility in mind. EPS and PDF files should have any fonts and images embedded in the file, and files in other formats should have similar compatibility or exchange settings turned on.
- When you place an EPS file that contains fonts not installed on your system, Adobe LiveMotion substitutes fonts on your system for the missing fonts.
- If the dimensions of a placed image are larger than the LiveMotion composition, the image is scaled to fit. You can change the image to its native size with the Clear Transformations command. However, this increases the size of the exported file.

Opening LiveMotion 1.0 Files

You can open Adobe LiveMotion 1.0 files. However, if the LiveMotion 1.0 files contain image objects that have Photoshop filters applied, the filters' effect will be removed. You can use the Edit Original command in LiveMotion to edit the original image in Photoshop and apply the filters you want there. for more information, see **"Using plug-ins to place artwork" on page 60**. Additionally, Adobe Illustrator 9 and later can apply non-destructive filter-like effects that LiveMotion can place and export to the SWF file format. As with Photoshop, you can re-edit the Illustrator effects by using the Edit Original command.

Placing image files

The Place command places files created with other applications as new image objects in an Adobe LiveMotion composition You can also use it to place other LiveMotion compositions.

You can place both vector and bitmap graphics files in an Adobe LiveMotion composition, including EPS, GIF, JPEG, PNG, BMP (Windows), PICT (Mac OS) files, PDF, and Photoshop 2.5 or later (RGB, grayscale, and CMYK). Third-party plug-ins may support other formats as well.

Note: *To place an image as a texture, see "Applying textures to layers" on page 74.*

To place files created in other applications:

1 Choose File > Place.

2 Select the file you want to place.

Note: *Only files saved in file formats supported by Adobe LiveMotion will be displayed in the Place dialog box.*

3 Click Open to add the file to the active Adobe LiveMotion window as a new image object.

Placing image files as an animated sequence

The Place Sequence command lets you place a numbered set of image files as an animated series. The following rules apply:

- When LiveMotion places a sequence, each image file is converted into one frame of an animation.
- Frames are placed sequentially, with the image file numbered first in the set as the first frame in the animated sequence.
- In the Timeline window, each new image in the sequence is represented by a separate Replace Object property keyframe.
- An initial Shape Resize property keyframe is added, with additional keyframes each time a different-sized image appears in the sequence.
- Frames are interpolated between the keyframes.
- The length of the animation is the total of the number of frames divided by the frame rate specified in the Composition Settings dialog box. For example, if you specify a frame rate of 30 frames per second and place a file with 30 frames, the animation will be one second long.

To place files as a sequence:

1 Prepare a folder containing the numbered image files. The files should match these conditions:

- All files must be in the same folder.
- Filenames must contain sequential numbers as part of their name (such as "Bird1.jpg," "Bird2.jpg," … "Bird37.jpg").
- The numbers can appear anywhere in the file as long as it's in a consistent location.
- The rest of the name must be identical in the named sequence.
- The numbers need not be contiguous—that is, you can skip numbers.
- Do not use decimals in the numbers.

2 Move the current-time indicator to the frame you want to begin the sequence with.

3 Choose File > Place Sequence.

4 Select one file from the sequence you are placing. This file doesn't need to be the first file of the sequence—LiveMotion automatically looks for the first file and places that as the first file in the animation sequence.

5 Click Open.

To change the length of the animation after placing a file sequence:

Alt-drag (Windows) or Option-drag (Mac OS) the end point of the duration bar to the desired length. The frames will be reinterpolated to match the new animation length.

To display a single image in the sequence:

Move the current-time indicator to the frame for that image.

Replacing objects

The Replace command places a file from another application within the *bounding box* of a selected object, and maintains the style and transformation information of the original object.

For example, you could animate an image, then use the Replace command to swap the original image with other images over time. This would crete a series of images that retained all of the transformations and multilayer effects you applied to the original image

To replace an object with a placed file:

1 Select the object or objects you want to replace.

2 Choose File > Replace.

3 Locate and select the file you want to use to replace the selected object.

4 Click Open.

Adobe LiveMotion scales the replacement image to match the selected object as closely as possible, crops the object along the shortest dimension if needed, and then reapplies any transformations or effects you previously applied to the image.

Using plug-ins to place artwork

Plug-ins are software programs developed by Adobe Systems, and by other software developers in conjunction with Adobe Systems, to expand the placing capabilities of Adobe LiveMotion.

Plug-ins for opening and placing multiple file formats come with your program and are automatically installed in the Plug-ins folder. In addition, LiveMotion can use plug-in modules created by third-party sources. Once installed, plug-in modules appear as file formats in the Place dialog box.

To install a third party plug-in:

1 Do one of the following:

- Follow the installation instructions that came with the third-party plug-in.
- If an installer is provided, use it to install the plug-in.
- Drag a copy of the plug-in to the Plug-ins folder inside the Adobe LiveMotion folder.

2 Restart LiveMotion.

Copying and pasting images and other selections

You can use the Cut, Copy, and Paste commands to do the following:

- Copy objects within Adobe LiveMotion. You can paste the copies as new objects, replace existing objects with the copied objects, or apply certain aspects of the copied objects to existing objects.
- Copy objects between Adobe LiveMotion and other applications.

- Copy images and text into Adobe LiveMotion—including EPS, DIB (Windows), PICT (Mac OS), and ASCII and RTF file formats.

Note: *When copying and pasting styled text from RTF format, some formatting characteristics may be lost.*

The cut or copied selection remains on the Clipboard until you cut or copy another selection.

To copy and paste selections:

1. Select what you want to copy.
2. Choose Edit > Copy or Edit > Cut.
3. Select the application or composition into which you want to paste the selection.
4. Choose Edit > Paste.

Dragging and dropping to copy between applications

The drag-and-drop feature lets you move selections from another application into Adobe LiveMotion, or from LiveMotion to other applications such as Adobe Photoshop and Adobe Illustrator, to bitmap graphics applications, and to word-processing applications.

You can drag and drop into LiveMotion any image file that can be placed. Depending on where you drop the image, LiveMotion does the following:

- Dropping an image onto a LiveMotion object replaces the object with the image.
- Dropping an image onto the Composition window creates a new image object.
- Dropping an image onto an object layer fills that layer with a texture based on the image. See "Applying textures to layers" on page 74.
- In Windows 2000/NT, dropping an image into the gray application window area places the image in a new composition.
- Dropping text from another application onto the LiveMotion composition creates a new text object.
- Dropping a LiveMotion file into a Composition window adds the entire contents, as a group, to the composition. See "Grouping objects" on page 47.
- Dragging an object from one LiveMotion composition to another creates a copy of the selection in the new composition.

To drag and drop artwork from LiveMotion to the desktop:

1. Select the artwork you want to copy.
2. Drag the selection onto the desktop.

In Windows, the selection is copied to the desktop as a Scrap file (Metafile). In Mac OS, the selection is copied as a picture clipping (PICT). Later you can drag and drop these files into another file.

To drag and drop LiveMotion artwork into a Photoshop or image editor window:

1. Select the artwork you want to copy.
2. Open the Photoshop image into which you want to copy the selection.
3. Drag the selection to the Photoshop image and release the mouse button.

Copying and pasting keyframes between AfterEffects and LiveMotion

The Copy and Paste commands let you copy one or more keyframes from Adobe After Effects and apply them to an object in a LiveMotion composition (and vice versa). Note that keyframes created in After Effects may contain functions not supported by LiveMotion.

To copy and paste frames between After Effects and LiveMotion:

1. Select the keyframes (not the objects) that you want to copy.
2. Choose Edit > Copy.
3. Select the object in the Timeline window to which you want to apply the keyframes.
4. Choose Edit > Paste.

Placing layered objects

When you place an Illustrator EPS file, PDF file, or Photoshop file that has multiple layers into LiveMotion, it is placed into your composition as a single, one-layered object. You can then animate it and apply effects as you would any object created in LiveMotion, including adding new object layers.

Keep the following in mind when placing layered objects:

- Illustrator and Photoshop layered objects can also be converted so that they retain their original layers.
- Layer effects and masks are supported.
- Vector objects and text export to SWF as vectors and native text.
- Adjustment layers and blending modes other than alpha are preserved when placed in layer sets which are not themselves converted to objects (that is, these layers and modes will affect other objects in those layer sets as long as they function as a single unit in LiveMotion).
- Effects and transparency in Illustrator layers is preserved.
- You can make layers into individual objects, a group of objects, or a sequence.
- Layers can be edited in Illustrator or Photoshop after conversion.
- Adobe LiveMotion can convert layers into a sequence of animation frames that can be viewed and displayed in the same way as separate files that have been placed in a sequence. For more information on placing animation sequences, see "Placing image files" on page 58.
- When using third-party plug-ins to place layered objects, see the plug-in manufacturer's documentation for any restrictions in how the object is placed.
- If you want to display a different layer of a converted, multi-layered object, you can use the Index option in the Properties palette. See "Editing converted placed objects" on page 64.

To convert a placed, layered object in LiveMotion:

1. Place a layered object.

2 With the object selected, do one of the following:

- Choose Object > Convert Into > Objects to convert the layers into individual objects. If the layers contained sublayers or multiple objects, each of those can be converted into individual objects as well.
- Choose Object > Convert Into > Group of Objects to convert the layers into a group of objects.
- Choose Object > Convert Into > Sequence to convert the layers into frames in an animation.
- Choose Object > Convert Into > Sequence With Background to convert the layers into frames in an animation with their background intact. The layers will be converted to an animation as described earlier, but the first layer will be visible throughout the animation sequence.

If the individual objects in turn consist of sub-objects, you can apply the Convert Into commands to those as well. For example, an Adobe Illustrator file might consist of three layers. The Convert Into > Objects command would convert it into three objects. However, each of those could in turn may be made out of several sub-objects. You can apply the Convert Into commands until objects contain no sub-objects.

Opening After Effects/AMX format files

You can open files saved in Adobe Motion eXchange (AMX) format. This enables you to bring files created in After Effects 5.5 or later into LiveMotion.

To open an After Effects/AMX file in LiveMotion:

1 Export the file in Adobe Motion eXchange (AMX) format. (Read the After Effects or other manufacturer's documentation for options when saving files in this format.)

2 In LiveMotion, choose Open, select the AMX file, and click Open.

Editing placed objects

Objects placed from Adobe Illustrator and Adobe Photoshop can be edited in those programs while remaining in their LiveMotion composition. (In fact, you can use Illustrator to edit any vector object and Photoshop to edit any bitmap object.) You can take advantage of the full range of Illustrator's and Photoshop's editing features, while leaving your LiveMotion composition intact. You do not need to re-place objects that you edit in their original applications. The changes you make are applied to LiveMotion's copy of the object, not to the source file itself.

Note the following when editing placed images:

- Using the Edit Original command on bitmap images in formats such as non-animated GIF, JPEG, PNG, PICT, and BMP (Windows) opens Photoshop.
- If you've converted a layered file to objects, don't change the number of layers or their stacking order, since this could cause problems when the file is updated in LiveMotion.
- You can also edit placed or pasted vector artwork by using the Edit > Convert Into > Path command. However, once converted to a path, you cannot edit the artwork with the Edit Original command. For more information, see "Converting text objects" on page 35 and "Converting into objects, sequences, and paths" on page 48.

- When using complex Illustrator artwork, it may be necessary to reduce the object to shapes several times first.

To edit placed objects:

1 Select the object.

2 Choose Edit > Edit Original.

3 Edit the object in Illustrator or Photoshop as needed.

The copy of the object is updated automatically in your LiveMotion composition.

Editing converted placed objects

The Index option in the Properties palette lets you specify which layer to show of a converted, placed, layered object. This is useful, for example, if using the Edit Original command changes the order of layers in a multilayer object.

To specify the top layer of a converted layered file:

1 Select the multi-layered object.

2 Choose Window > Properties.

3 Enter a number in the Index option to move that layer to the top. Entering a 0 displays all of the layers, other numbers display just that layer.

Moving objects and layers in a converted placed file up or down a level

The Parent button and Child button in the Properties palette lets you change the relation of objects and sublayers to layers. For example, suppose an Adobe Illustrator file has three layers that each contain several objects. You could select and move any layer or object up a level (with the Parent button) or down a level (with the Child button) in the layer hierarchy.

To move an object or layer in a converted layered file up or down a level:

1 Select the object or layer whose level you want to change in the converted, multi-layered object.

2 Choose Window > Properties.

3 In the Properties palette, choose whether to move up or down a level:

- Click the Parent button ⮥ to move the object or layer up a level.

4 Click the Child button ⮦ to move the object or layer down a level.

Managing files with WebDAV

LiveMotion supports the Web Distributed Authoring and Versioning (WebDAV) server technology. Using this technology, you can connect to a WebDAV server, download and upload (save) files, lock files so others cannot work on them at the same time as you, and add (save) additional files (called *assets*) to the server. Use a WebDAV server to work in a collaborative environment without fear that files will be accidentally overwritten or updates lost.

About workgroup management

When working in a collaborative environment, users must share files. The process of passing files from one collaborator to another involves working with a *workgroup*. Controlling the hand-off—so that only one person can edit a file at any given time—is called *workgroup management*.

A WebDAV server provides workgroup management via the Web. When a file is managed by a WebDAV server, multiple users can download copies of the file, but only one user at a time can *check out* the file. The user who checks out the file can share his or her work with other users by updating the file on the server; however, other users can't make changes to the managed file until it is checked in. This check out/check in system allows multiple users to access the same file but prevents users from overwriting each other's work.

Getting started with workgroup management

To use the workgroup management features in Livemotion, you must be able to connect to a WebDAV server. You can find detailed information and the latest news about WebDAV at www.webdav.org.

Important: *Firewall software can interfere with the process of connecting to a WebDAV server. Check with your system administrator or refer to your firewall software documentation for information about setting options to access outside servers.*

Different WebDAV servers have different authentication requirements. Some servers require you to enter a user name and password for every transaction; other servers require authentication only the first time you check out a managed file. When the Authentication dialog box appears, enter your user name and password, and click OK.

When adding a new server to the workgroup, you will need to provide a unique server nickname (this will appear in the Manage Servers list) and a URL for the server.

To set up a server for use with Livemotion:

1 Choose File > Workflow > Manage Servers.

2 Specify a folder in which you want to store local copies of managed files. To change the default location, click Choose, and specify a different folder.

Note: *The path you choose here is used for all servers you want to add. Changing this path does not change the location of files on existing servers.*

3 Specify the WebDAV servers you want to use, or do one of the following:

- To add a new server to the list, click New Server, specify a server nickname and URL, and click OK.
- To remove a server from the list, click Remove, and then click OK to the warning message.

4 Click OK, or click Advanced Options to specify additional information about the server.

5 In the Advanced Options dialog box, select Use a Custom Workgroup Files Location for This Server to set up a custom workgroup file repository for this collection of files; then click Choose or Select and specify a folder.

Note: *This option is only available for adding a new server, not for existing servers.*

6 To specify additional URLs by which you can access this server, type the alternate URL under Alternate Server URLs for This Server, and click Add. Currently, Livemotion stores the URL information, but does not use it to locate files.

7 To remove previously entered alternate URLs, select the URL and click Remove.

8 Click OK.

Opening managed files

To view a managed file, open a copy of the file from a WebDAV server. The File > Workflow > Open command creates a local copy of the file on your hard drive.

After you have a local copy of a file, you can update it with changes from the managed file on the server by using the Revert command (for checked out files or the Update command (for non-checked out files).

To open a managed file:

1 Choose File > Workflow > Open.

2 Select a server, a directory, and the file you want to open.

3 Do one of the following:

- Click Check Out if you want to open and check out at the same time. (See "Checking files out and in" on page 66.)
- Click Open if you want to open a local copy without checking it out.

To update or revert a local file to the version on the server:

1 Open your local copy of the file.

2 Do one of the following:

- If the file is checked out, choose File > Workflow > Revert.
- If the file is not checked out, choose File > Workflow > Update.

Checking files out and in

Checking out a file prevents other users from making changes to it on the WebDAV server. When you're finished making edits, check in the file to update your changes to the server and release your lock on the managed file.

You can save changes to managed files that you have checked out. To save changes to managed files that you have not checked out, use the Save As command and add that new file to the workgroup server.

To check out a file:

Do one of the following:

- To check out the file that you already have open, choose File > Workflow > Check Out.
- To open and check out a file at the same time, choose File > Workflow > Open. Then, locate and select the file and click Check Out. (See "Opening managed files" on page 66.)

To check in a file:

Do one of the following:

- To check in the file and update changes to the server, choose File > Workflow > Check In.
- To check in the file without updating changes to the server, choose File > Workflow > Cancel Check Out.

Placing managed files

Use the File > Workflow > Place, Place Sequence, Place as Texture, and Replace commands to place or replace a single, managed file as a link in a checked out managed file. You can place/replace documents from the current workgroup server only.

To place a managed file:

1 Make sure you are connected to the network and have access to the managed server.

2 Open the checked out version of a managed file.

3 Choose one of the following:

- File > Workflow > Place to place the document.
- File > Workflow > Place Sequence to place a sequentially numbered set of image files as an animated series of frames. (See "Placing image files as an animated sequence" on page 59.)
- File > Workflow > Place as Texture to place a texture to the selected layer. If no object is selected, the texture is applied to the background. (See **"Applying textures to layers" on page 74**.)
- File > Workflow > Replace to place a file from another application within the *bounding box* of a selected object, and maintains the style and transformation information of the original object. (See "Replacing objects" on page 60.)

4 Select a file and click Open.

Adding files to the server

Adding a file to a WebDAV server initiates workgroup management for the file; in other words, you create a managed file by adding it to a server. You can add files to a server using the File > Workflow > Save or Save As commands. The Save command adds to the server a managed file that has been altered; the Save As command adds a previously unmanaged file to the server.

To add a file to a WebDAV server:

1 Open the file you want to add to the server.

2 Do one of the following:

- To add a managed, but currently checked out file to the server, choose File > Workflow > Save.
- To add a file to a managed workgroup, choose File > Workflow > Save As.

3 Choose a server from the pop-up menu; then locate the directory to which you want to save the file.

4 Type in a file name in the Name text box, and choose a format from the Format pop-up menu.

Note: *Be sure to specify a file extension if the file will be downloaded to a computer running a Windows operating system.*

5 To check out the file, select Keep This File Checked Out for Editing.

6 Click Save.

Working offline

Working offline lets you work disconnected from the network. This is useful when you are working away from your office, for example. You can edit a managed file that has been checked out before you went offline.

You can perform operations that don't change the workgroup state (that is, operations that don't check in or check out files) while offline. If you attempt to do something that is an online operation (such as Check In) you are reminded that you are offline and asked if you want to connect to continue.

To work offline:

Choose File > Workflow > Work Offline.

Adding metadata to documents

Metadata, or file information, is descriptive information that can be searched and processed by a computer. Use it to provide information about the contents of a document and to preserve information about a document that will be opened in other Adobe applications.

You can add metadata to AI, PDF, or SVG file formats.

To add metadata to a document:

1 Choose File > File Info.

2 To load an existing file click Load, choose the file, and click Open.

3 Select a category from the list on the left side of the dialog box and enter the desired information.

- General specifies information about the document, such as title, author, and description. To specify copyright information, select Yes from the Copyrighted pop-up menu. Then enter the copyright notice string and the URL of the person or company who owns the copyright.
- Keywords specifies words that can be used to search for the document. To add a word to the list, enter text in the Keyword text box and click Add. To edit or replace a word in the list, select the word, change the text in the Keyword text box, and click Replace. To delete a word from the list, select the word and click Delete.
- Summary specifies status information for the document, including its creation data, modification data, and location. If the document is a managed file, the server location and checkout status also appears. You cannot edit Summary metadata.

4 Do one of the following:

- To save the information, click OK.
- To save the information as a separate file, click Save, enter the name you want to save it as, and click Save in the Save dialog box.
- To append the information to an existing file, click Append, enter the name you want to save it as, and click Open in the Open dialog box.

Chapter 7: Object Layers

Adobe LiveMotion object layers help you customize your compositions, and also make adding image effects easier.

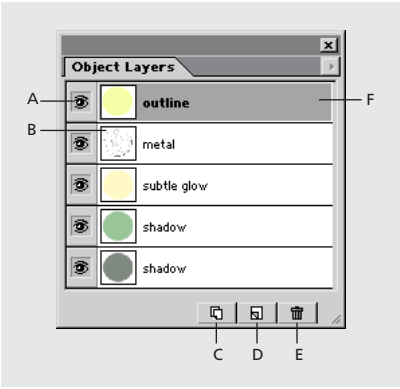
About object layers

The power of layers is that they allow you to work on one object of your composition without disturbing the others. This means you can experiment freely with different objects without making changes to your overall composition. In addition, special features let you create special elements for your Web page design, such as arrows that have an embossed shape on the top layer and a drop shadow on the bottom layer of an object.

Using the Object Layers palette

The Object Layers palette lists all layers in an object, starting with the topmost layer. A small preview of each layer appears in the palette and is updated as you edit. The Object Layers palette enables you to select, create, hide, display, copy, move, and delete layers. (Additional commands appear in the Layer menu.)

The Shapes, Styles, Properties, and Transform palettes affect all layers in a selected object. The Layer, Color, Opacity, Adjust, Distort, 3-D, Gradient, and Textures palettes affect only the selected layer of a selected object.



Object layers palette
A. Show/Hide button **B.** Thumbnail **C.** Duplicate Layer button **D.** New Layer button **E.** Trash button **F.** Highlighted layer is selected.

To display the Object Layers palette:

Choose Window > Object Layers.

Selecting layers

If your composition has multiple layers, you must select what layer you want to work on. Any changes you make to the composition affect only the active layer. Only one layer can be active at a time.

If you don't see the desired results when using a tool or applying a command, you may not have the correct layer selected. Check the Object Layers palette to make sure that you're working on the desired layer.

To select a layer:

In the Object Layers palette, click a layer to make it active.

Viewing layers

With the Object Layers palette, you can control whether a layer is visible. Visible layers display a preview or *thumbnail* of its contents. Only visible layers are exported and printed.

To show or hide a layer:

Do one of the following:

- In the Object Layers palette, click the Show/Hide button next to a layer to hide that layer and its thumbnail. Click in the column again to redisplay the layer.
- Alt-click (Windows) or Option-click (Mac OS) the Show/Hide button for a layer to display just that layer and its thumbnail. Alt/Option-click in the Show/Hide column again to redisplay all the layers and thumbnails.

Note: *You can make the selected layer invisible. Keep in mind, however, that changes still affect the hidden, selected layer.*

Changing the stacking order of layers

The order of layers in the palette is the same as the stacking order in the composition, with the top most layer in the palette being the front layer in the composition.

To change the order of layers with the Layers menu:

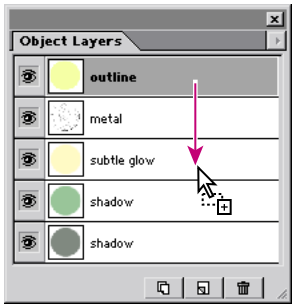
1. In the Object Layers palette, select the layer that you want to move.
2. Choose Layer > Arrange, and choose an option from the submenu to arrange the layer:

- Bring to Front to make the layer the top most layer.
- Bring Forward to move the layer up one level in the stacking order.
- Send Backward to move the layer down one level in the stacking order.
- Send to Back to make the layer the bottommost layer in the composition.

To change the order of layers by dragging:

1. In the Object Layers palette, select the layer that you want to move.

2 Drag the layer up or down in the palette. When the outline of the layer you are dragging appears in the position you want, release the mouse button.



Changing layer order by dragging

Creating a layered composition

LiveMotion lets you create up to 99 layers in an composition. However, the amount of memory in your system may put a lower limit on the number of layers possible in a single composition.

Adding layers

Newly added layers appear below the selected layer in the Object Layers palette.

To add a new layer:

Do one of the following:

- Choose Layer > New Layer.
- Click the New Layer button in the Object Layers palette.

The layer is named according to its order in the layer stack.

To name or rename a layer:

1 In the Object Layers palette, double-click the layer.

2 Enter the name you want to give the layer, and click OK.

Duplicating layers

You can duplicate any layer within the same object. The new layer appears below the original and is automatically selected.

To duplicate a layer:

1 In the Object Layers palette, select the layer you want to duplicate.

2 Do one of the following:

- Choose Layer > Duplicate Layer.
- Click the Duplicate Layer button the Object Layers palette.

To delete a layer:

1 Select the layer in the Object Layers palette.

2 Do one of the following:

- Choose Layer > Delete Layer.

- Click the Trash button in the Object Layers palette.

Removing layer attributes

The Clear Layer Attributes command removes any gradient, opacity, color adjustment, texture, image, 3-D effect, distortion, offset, or softness attributes applied to the layer. The resulting layer is filled with the current color.

To remove the attributes of a layer:

1 Select the layer in the Object Layers palette.

2 Choose Layer > Clear Layer Attributes.

Using the Layer palette

While the Object Layers palette lets you add, remove, select, reorder, and delete a specific layer of an object, the Layer palette lets you specify several basic properties for the selected layer:

- Fill specifies whether the layer is filled with a color, texture, image, or the background.
- X Offset and Y Offset specify how far to move the layer from the object's center. You can use these values, for example, to create a drop shadow.
- Width specifies how much to widen or narrow a layer. You can use this option to widen the bottom layer, creating an outline, or *stroke,* around the object.
- Softness specifies how much Gaussian blur to add to the layer. You can use this feature to create shadows with soft edges, for example

To specify a color fill for a layer:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, choose Color to fill the layer with the current color, opacity, and gradient specified in the Color, Opacity, and Gradient palettes.

To specify an Image fill for a layer:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, choose Image to fill the selected layer with a specified image. For instance, if you select an image of a boat, the layer is filled with the boat image. Choosing this option for a geometric object or text object fills the layer with the current color. If you want to apply an image to a layer of an object, drag the image file onto the layer in the Object Layers palette. Keep in mind that you can't add a different image to each object layer.

To specify a background fill for a layer:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, choose Background to fill the layer with whatever is beneath the object, whether it's another object or the background. For more information, see "About foreground, background, and layer colors" on page 85.

To specify a texture fill for a layer:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, choose Texture to fill the layer with any texture applied to it. If no texture is currently applied, the shape remains filled with the current color, opacity, and gradient. For information, see "Applying textures to layers" on page 74.

Top layer filled with **A.** Color, **B.** Image, **C.** Background, and **D.** Texture

To specify the softness of a layer:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, for Softness, drag the Softness slider or enter a value between 0 and 10 in the text box to specify the amount of Gaussian blur. A higher value increases the amount by which the edge of the layer fades into transparency.

To offset a layer with the Layer palette:

1 Select the layer in the Object Layers palette.

2 Choose Window > Layer.

3 In the Layer palette, offset the layer from the center of the object by a specific number of pixels:

- To move the object horizontally from the center, drag the X Offset slider or enter a value between -50 and 50 pixels in the text box. A negative value moves the layer to the left; a positive value moves it to the right.
- To move the object vertically from the center, enter a Y Offset value between -50 and 50 pixels. A negative value moves the layer up; a positive value moves it down.

To offset a layer by dragging:

1 Select the layer.

2 Do one of the following:

- Select the layer-offset tool, and drag.
- Press Ctrl (Windows) or Command (Mac OS), and drag over the center of the object.

To enlarge or shrink a layer:

1 Select the layer.

2 Choose Window > Layer.

3 For Width, enter a value between -10 and 10 pixels. A negative value narrows the layer; a positive value widens it.

Applying textures to layers

The Textures palette lets you apply a repeating—or tiled—texture or pattern to any layer of an object or to the background. Because textures are image files and can be in any file format that LiveMotion can import, you can add your own textures to the palette as well as use the ones provided. You can display a subset of textures in the palette, depending on what types of textures you are interested in.

You can also directly apply a bitmap image as a texture to an object or the background.

For information on layers, see "Using the Layer palette" on page 72; for information on acceptable file formats, see "Placing image files" on page 58; for information on copying and pasting a bitmap image or texture from one object to another, see "Copying and pasting object attributes" on page 42.

You can use the same texture in the background of your LiveMotion composition as you do in your Web page. This shows you what your compositions will look like when they are place on the Web. And because LiveMotion automatically sets the transparency and edges of the exported objects to blend with the background texture, it can also make objects you export in GIF format look better against the background of your Web page. Because different Web browsers offset individual imported images differently against the background, this works best if you export a composition as an entire page rather than as separate images.

To display the Textures palette:

1 Select the background in the toolbox, or select the object in the Composition window and the layer in the Object Layers palette, to which you want to apply the texture.

2 Choose Window > Textures.

3 Choose a display option from the Textures palette menu:

- Swatches View to display a grid of thumbnail examples of textures.
- Preview View to display a named list of textures along with a large thumbnail for the currently selected texture.
- Name View to display a named list of textures with a small thumbnail example of each.

To display a subset of textures:

1 Choose Window > Textures.

2 Select one or more texture attribute:

- Small textures are less than 500 pixels in width or height and generally must be tiled to fill a background.

- Large textures are more than 500 pixels in width or height and generally fill a background without tiling.

To apply a texture using the Textures palette:

1 Select the background (by clicking the background color box in the toolbox or Color palette) or select the object in the Composition window and the layer in the Object Layers palette.

2 Apply the texture from the Textures palette:

- Select the texture from the list (you can type a texture's name to select it). Then click the Apply button in the palette, or press Enter or Return.
- Double-click the texture from the list.
- Drag the texture onto an existing object to apply the texture to the selected layer. The existing object displays selection handles when it is selected.
- Drag the texture onto a layer in the Object Layers palette to apply the texture to the selected layer.
- Drag the texture onto the background to apply the texture to the background.

To apply a texture to a layer by dragging an image file from a folder or directory:

1 Open the folder or directory containing the bitmap image file you want to apply as a texture.

2 In LiveMotion, select the object to which you want to apply the texture.

3 Drag the image file from the folder or directory onto the layer in the Object Layers palette to which you want to apply the texture.

To place an image file as a texture:

1 Select the background or object and layer to which you want to apply the texture.

2 Choose File > Place as Texture.

3 Locate the image file you want to place as a texture.

4 Select Preview (Mac OS only) to display a small preview of the file. (In Windows, files are automatically previewed when possible.)

5 Click Open.

To add a texture to the Textures palette by dragging:

1 Select the object in the Composition window and the layer in the Object Layers palette that contains the texture you want to add to the Textures palette.

2 Do one of the following:

- Drag the object from the Composition window onto the Textures palette.
- Drag the layer from the Object Layers palette onto the Textures palette.

3 Name the texture, and click OK.

The texture is placed in alphabetical order in the list of available textures.

To apply an image object as a texture to an object, save the image as a texture first. You can do this by dragging the image object onto the Textures palette.

To add a texture to the palette by dragging a bitmap image file:

1 Open the folder or directory containing the bitmap image file.

2 In LiveMotion, Drag the image file onto the Textures palette.

3 Name the texture, and click OK.

A copy of the bitmap image file is saved as a texture and placed in alphabetical order in the list of available textures.

To add a texture to the palette by specifying an image file:

1 Click the New button on the Textures palette.

2 Locate the image file of the texture you want to add to the Textures palette, and click Open.

3 Name the texture, and click OK.

The texture is placed in alphabetical order in the list of available textures.

To add a texture to the Textures palette by placing it in the Textures folder:

1 If needed, rename an image file in Explorer (Windows) or the Finder (Mac OS) to give it the name you want to appear in the Textures palette. In Windows, the image file must have the correct image extension.

2 Place the image file into the Textures folder located in the LiveMotion folder.

The image is placed in alphabetical order in the list of available textures the next time you start LiveMotion.

To replace a texture:

Add a texture, and give it the same name as an existing texture.

To delete a texture from the Textures palette:

1 In the Textures palette, select the texture you want to delete.

2 Click the Trash button.

3 Click Delete.

Applying color adjustments to layers

The Adjust palette lets you adjust color attributes on any layer of an object or the background. You can change the brightness, contrast, saturation, or tint of colors. In addition, you can limit the number of colors for a posterized effect, and invert colors.

Depending on what you choose in the Layer palette, a layer can be filled with color, an image, a texture, or the background. For more information, see "Using the Object Layers palette" on page 69.

The effect of the Adjust palette varies, based on the layer's fill:

- If the layer is filled with a color, it is generally simpler to choose a different color from the Color palette than adjust it with the Adjust palette. Otherwise, the color is just shifted to another color you could have picked from the Color palette.

- If the layer is filled with an image or texture, the Adjust palette alters the entire range of colors in the texture or image. The Adjust palette options are most useful on these kinds of fills.
- If the layer is filled with the background, the Adjust palette lets you easily change the color of anything seen through that layer, creating an effect similar to looking through a colored lens.

About color adjustment

Adjusting colors is similar to mixing white or black paint into colored paint; it alters the appearance of the color without altering the actual hue. In the Adjust palette, colors can be adjusted in the following ways:

- Brightness makes a layer lighter or darker. Enter a value between -255 and 255. A negative value darkens the layer; a positive value lightens it.
- Contrast increases or decreases the difference between colors. Enter a value between -128 and 128. A negative value decreases the contrast on the layer; a positive value increases it. This effect is most noticeable if the layer is filled with an image, texture, or background.
- Saturation adjusts the strength of the color. Enter a value between -128 and 128. A negative value increases the amount of gray in proportion to the hue; a positive value decreases the amount of gray in proportion to the hue.
- Tint blends the current foreground color in the Color palette with the current fill for the selected layer. Enter a value between 0 and 255. A higher number increases the amount of tint added to the fill. This option is not available if the layer is filled with a color from the Color palette.
- Posterize sets the number of colors in the image. Entering 0 leaves a full range of colors in the layer. Entering 1 leaves one color in the layer; entering 30 leaves 30 colors. For example, using just a few colors for a bitmap image can change a continuous-tone image such as a photograph into areas of flat color, making the photo look like a painted poster.
- Invert changes the colors in an image to their opposites. You might use this command to make a positive black-and-white image negative or to make a positive from a scanned black-and-white negative. The normal, noninverted color is displayed in the foreground color box and background color box in the toolbox and Color palette, because it is this color that is currently inverted.

Note: *Because negative color film contains an orange mask in its base, the Invert command cannot make positives from scanned color negatives.*

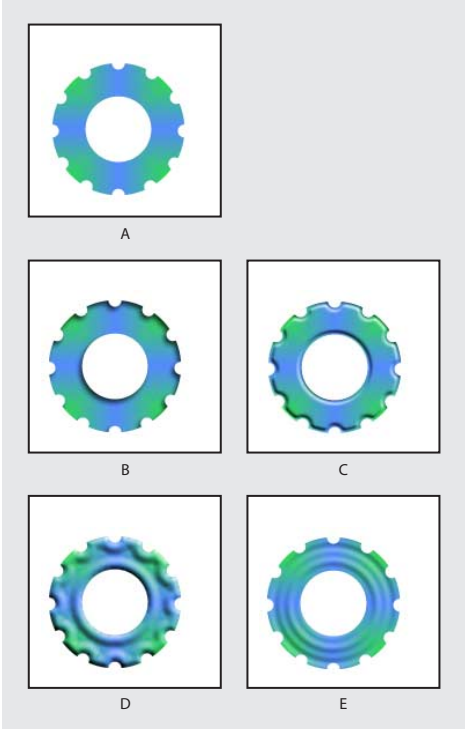
When you invert a color, the brightness value of each component of that color is converted to the inverse value on the color range slider (it shifts colors to their opposite on the color wheel). For example, the inverse of a color whose red is 255 is 0.

To adjust colors using the Adjust palette:

1. Select the object in the Composition window and the layer in the Object Layers palette.
2. Choose Window > Adjust.
3. Choose a color adjustment.

Applying 3-D effects to layers

Adobe LiveMotion includes four automated 3-D effects that you can apply to any layer of an object. These effects are cutout, emboss, bevel, and ripple. Adding 3-D effects can increase the file size of your compositions.



3-D effects
A. Original **B.** Cutout **C.** Emboss **D.** Bevel **E.** Ripple

To apply a 3-D effect to a layer:

1 Select the object in the Composition window, and select the layer in the Object Layers palette.

2 Choose Window > 3-D.

3 For Effect, choose one of the following: None, Cutout, Emboss, Bevel, or Ripple.

4 Specify the intensity of the effect:

- For Depth, enter a value between 0 (for no distance) and 40 to specify the distance in pixels between the edge of the layer and where the effect is greatest. A higher value increases distance and creates a greater apparent depth.
- For Softness, enter a value between 0 (for no blur) and 10 to specify the amount of Gaussian blur to apply to the layer. A higher value increases the apparent smoothness of the effect. The high value of softness is useful for preventing jagged edges from appearing on bevels, and to round over the top of a bevel.
- For Lighting, enter a value between 0 (for no difference) and 200 to specify the difference between the light and dark areas of the object. A value of 100 uses all the lighting information in the object; lower and higher values have an effect similar to underexposing and overexposing the object.

5 Choose an Edge setting to specify the type of edge: Straight, Button, Plateau, or Ripple.

Note: *The Edge settings are unavailable when you use the Cutout option.*

6 Choose a Light setting:

- Normal to apply neutral lighting, highlights, and shadows to the object.
- Light Only to apply just neutral lighting and highlights to the object.
- Dark Only to apply just neutral lighting and shadows to the object.

7 In the angle area ∠, enter the rotation angle in degrees to indicate the source of the light. An angle of 0° lights the object from the right, 90° lights it from the top, 180° lights it from the left, and 270° lights it from the bottom.

Applying distortion effects to layers

The Distort palette provides a variety of distortion effects that let you alter the fill on any object layer. The results of the distortion effect depends on the layer's fill. Applying a distortion to a layer filled with a solid color has no visible effect. However, you can distort a layer filled with a gradient. Applying a distortion to a layer filled with a texture distorts the texture. Applying a distortion to a layer filled with an image distorts the image.

Distortion effects will increase the file size of bitmap images.

None Applies no effect.

Displace Shifts the fill. This option works best with shapes that are filled with the background and have a 3-D effect applied, because Displace bases its distortion on the apparent "depth" of the shape. Increasing the Distance value moves the fill further in the direction of the angle you specify.

Lens Magnifies or shrinks the fill. Increasing the Magnification value enlarges the fill, decreasing shrinks it. Entering an Angle value rotates the fill in the direction you specify.

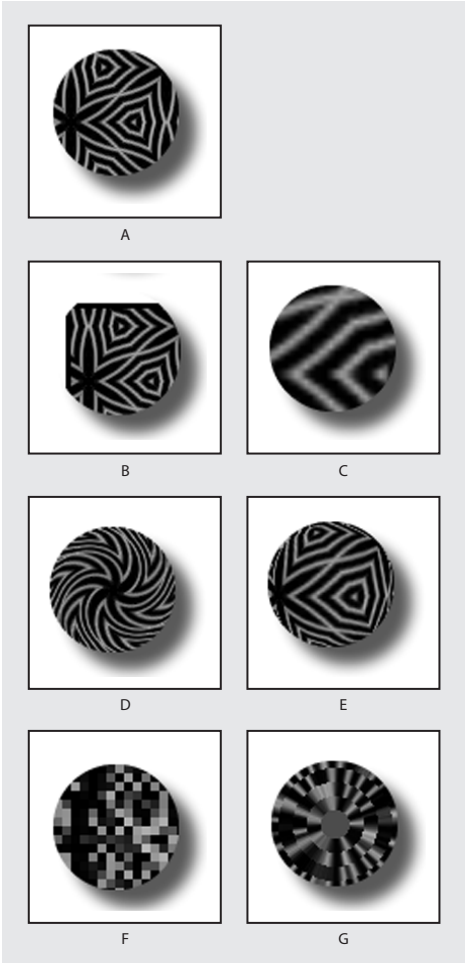
Twirl Rotates the fill more sharply at the center than at the edges. A positive Turn value rotates the view clockwise; a negative value rotates the view counterclockwise. A value of 100 creates one complete turn.

Increasing the Band Size value splits the image into increasingly larger concentric bands. Within each band the pixels are rotated the same amount.

Spherize Wraps the fill around a sphere, creating an effect similar to a fisheye lens. Increasing the Magnification value enlarges the fill, decreasing shrinks it. A positive Sphere value increases the size of the fill at the center; a negative value shrinks it.

Quantize Breaks up the fill into tiles or blocks. The Size value determines the size of the tiles in pixels.

Radial Quantize Breaks up the fill into circular bands radiating from the center of the shape. The Size value determines the width of the band in pixels. Applying a distortion to a layer filled with the background distorts areas below the object, creating a lens-like effect.



Distortion effects
A. Original **B.** Displace **C.** Lens **D.** Twirl **E.** Spherize **F.** Quantize **G.** Radial Quantize

To distort a layer:

1 Select the object in the Composition window, and select the layer in the Object Layers palette.

2 If needed, specify the fill for the shape on that layer: the background, an image, or a texture. (A solid color is not recommended.)

3 Choose Window > Distort.

4 Choose a distortion effect.

Chapter 8: Color, Gradients, and Opacity

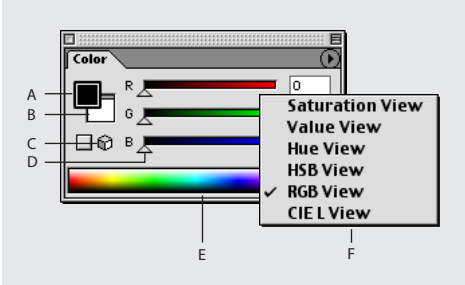
Layers can be filled with colors specified in the Color palette, or with colors sampled from other objects using the eyedropper tool. Once you've specified a color, you can adjust its opacity, create gradients, or make further color adjustments.

About color management

The colors you choose for your graphics affect the look and feel of your Web pages. LiveMotion provides a full range of color palette options to create and modify colors. LiveMotion also includes Web-safe colors that will display properly in Web browsers.

Using the Color palette

The Color palette displays the color values for the current foreground and background colors. Using the sliders in the Color palette, you can edit the foreground and background colors according to several different color models. You can also choose a color from the spectrum of colors displayed in the color bar.



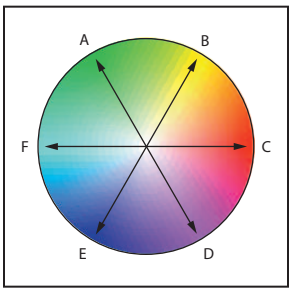
Color palette
A. Foreground color **B.** Background color **C.** Set Web-safe colors **D.** Slider **E.** Color bar **F.** Color palette menu

About color models

Color models provide different ways of creating colors. Each one is based on a different aspect of color or a different way of viewing color. LiveMotion has several color models with which you can work.

Designing for the Web presents a unique challenge when choosing colors. Color monitors cannot display every color, and Web browsers display fewer still, so you need to choose colors that will work on the Web. LiveMotion has features to help you choose Web-safe colors.

Saturation View Sometimes called *chroma*, saturation is the strength or purity of the color. Saturation represents the amount of gray in proportion to the hue, measured as a percentage from 0% (gray) to 100% (fully saturated). On the standard color wheel, saturation increases from the center to the edge.



Standard color wheel
A. Green **B.** Yellow **C.** Red **D.** Magenta **E.** Blue **F.** Cyan

Value View Represents the relative lightness or darkness of the color, usually measured as a percentage from 0% (black) to 100% (white).

Hue View Represents the color reflected from or transmitted through an object. It is measured as a location on the standard color wheel, expressed as a degree between 0° and 360°. In common use, hue is identified by the name of the color such as red, orange, or green.

HSB View Consists of hue (color) values from 0° to 360°, saturation (the strength or purity of the color), brightness (lightness or darkness of the color) values from 0% to 100%. The angle for hue is defined as an angle relative to pure red on the color wheel.

RGB View Assigns an intensity value to colors ranging from 0 (black) to 255 (white) for each of the red, green, and blue (RGB) components in a color image.

CIE L View Represents a subset of all visible colors that can also be displayed by color monitors. The palette has a range of saturation. As the saturation changes, the range of visible colors within the limit of that saturation changes. Colors within a range that cannot be displayed by color monitors are represented as white space.

Web Safe Is the set of 216 colors most often used by Web browsers. This set is a subset of the Windows and Mac OS system palettes. Only Web-Safe colors are shown in the Color palette when you click the Set Web Safe Colors option.

Note: *Applying distortion or 3-D effects, tints, or gradients may produce colors that are not Web-safe.*

To specify a color using the Color palette:

1 Select the object you want to edit, or the foreground or background.

2 Choose Window > Color if the Color palette is not open.

3 Choose a color model from the Color palette menu at the top right of the palette. If you want only Web Safe colors shown, click the Set Web Safe Colors option in the Color palette.

4 Specify a new color:

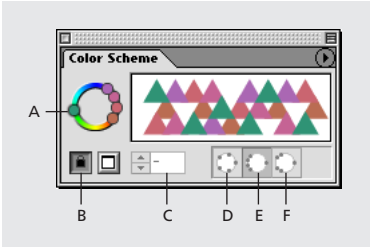
- Drag the color sliders.
- Enter values next to the color sliders.

- Click the color bar.
- To specify a new Hue, Saturation, Value, or CIE L color, use the color slider and the color field to select a color. The vertical color slider displays the range of color levels available for the selected color (for example, Hue). The color field displays the range for the remaining two components—one on the horizontal axis, one on the vertical (in this example, Saturation and Value).

Using the Color Scheme palette

The Color Scheme palette creates a color scheme based on the color you select. You can then apply the colors of the scheme to the objects in your composition.

Color schemes are based on the relative positions of colors on the color wheel. Analogous colors are next to each other on the color wheel. These colors are similar and create tonal color schemes made up of, for example, all warm colors such as reds. Complementary colors are across from each other on the color wheel. These colors are opposites and create dynamic color schemes made up of distinct colors that stand out from one another.



Color scheme palette
A. The base color **B.** Lock color scheme **C.** Number of colors in the scheme
D. Equidistant Colors scheme **E.** Complementary Colors scheme **F.** Split Complementary scheme

The Color Scheme palette will display up to six colors in a set, according to the number of colors and color scheme option you choose:

- Split Complementary: The base color and its complement's analogous colors.
- Complementary Analogous: The base color, its analogous color, and their complements.
- Tetrad: The base color and its three equidistant colors.
- Triad: The base color and its two equidistant colors.
- Sextet: The base color and its five equidistant colors.

Here are some guidelines to note when using the Color Scheme palette:

- Some colors are not available in Web browsers. If you have selected the Web-safe color option in the color palette, only Web-safe colors will be displayed in the color scheme.
- The base color is indicated by a larger black circle.
- Choosing a highlighted complement as the new base color will not necessarily yield the same set of colors as the original base color.

To create a color scheme using the Color Scheme palette:

1 Select a color to use as the base color, using either the eyedropper tool, the Color palette, the Color Scheme tiles on the toolbox, or by selecting an object.

2 Choose Window > Color Scheme.

3 Choose how to display the base and complementary colors using the Color Scheme palette menu at the top right of the palette:

- Triangles displays the colors as overlapping triangles.
- Honey Comb displays the colors as interlocking honeycomb shapes.

Select the background button to display the background color of the composition in the color scheme preview box.

Choose a color scheme from the menu at the bottom of the palette.

4 Deselect Lock Colors, which is selected by default.

5 Select the number of colors for the scheme using the up and down arrows.

6 Select the object to which you want to apply a color from the Color Scheme palette.

7 Click the color in the palette or the Color Scheme tile in the toolbox. Lock Colors will be selected to prevent the colors in the Color Scheme palette from changing when you select a new color.

To save a color scheme and use it in other LiveMotion compositions, open a new Composition window, create a number of basic objects, and apply each of the scheme's colors to an object. Then save the composition. You can later open the composition and use the eyedropper tool to apply the colors from the saved composition to the objects of another composition.

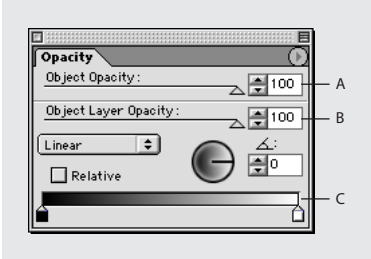
Using the Opacity palette

The Opacity palette lets you specify the opacity of any object or layer. That is, you can use the palette to control the transparency of objects or layers. An object can have a single opacity for all its layers, or each layer can have its own opacity along with the overall opacity of the object. Opacity can be very useful for controlling how textures and images are rendered. Applying a colored layer with 30% opacity over a layer with a texture, for example, will change the color of the texture and make it look softer but will still allow it to show through.

The opacity can be applied evenly, or as a gradient. For example, you can set the starting opacity to 100% and have the fill gradually blend into an ending opacity of 50%.

The gradient options in the Opacity palette let you select the starting and ending opacity, as well as the relative distance from the edges of the object where the starting opacity begins blending to the ending opacity.

In the opacity gradient bar, black represents an opacity of 100% (fully opaque) white an opacity of 0% (fully transparent), and gray an opacity between 0 and 100% (semitransparent). The bar at the bottom of the palette lets you preview the effects of the opacity gradient. For more information on creating opacity gradients, see "Creating gradients" on page 87.



Opacity palette
A. Object opacity **B.** Object layer opacity **C.** Gradient selection

To specify opacity:

1. Select the object or object and layer.
2. Choose Window > Opacity if the Opacity palette is not open.
3. Adjust the opacity of the object or layer:

- To adjust the opacity of the entire object, enter a value between 0 and 100 for Object Opacity.
- To adjust the opacity of the selected layer, enter a value between 0 and 100 for Opacity.

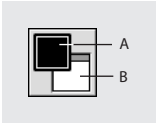
A value of 0 makes the layer or object completely transparent; a value of 100 makes it completely opaque.

About foreground, background, and layer colors

The *foreground* color is the color that fills the currently selected object layer, and is used to fill any newly created objects; the *background* color fills the background, or canvas, against which the object appears. The layer color is the color of the currently selected object layer. You can specify a color for the foreground, background, or layer with the Color palette or the eyedropper tool, or even apply a texture with the Textures palette. For information on textures, see "Applying textures to layers" on page 74.

The current foreground color and background color are the colors that will be used in any composition until you choose different ones.

The current foreground color appears in the top color selection box, the background color in the lower box in both the toolbox and the Color palette. The default foreground color is black, and the default background color is white. Any color changes you make in the composition are reflected in the color selection boxes. Because changing the color of a selected layer also changes the foreground color, and vice versa, you can change them simultaneously.



Color palette color selection box
A. Foreground color **B.** Background color

To change the foreground, background, or layer color:

1 Choose the foreground, background, or layer:

- Click the foreground color box, or select an object and layer you want to color. Deselect any selected objects to change the foreground color without applying it to any object. Then make sure the foreground color box is selected in the toolbox or Color palette.
- Click the background color box. This action selects the background and deselects any object currently selected.
- Select the object and layer to apply the color directly to a layer.

2 Choose a color, gradient, or texture to apply to the foreground, layer, or background:

- Sample a color, as explained in "Copying colors and styles" on page 86.
- Make a gradient, as explained in "Creating gradients" on page 87.
- Choose a texture, as explained in "Applying textures to layers" on page 74.

Copying colors and styles

You can sample the color of any object or the background in your composition, or from another application entirely. You can then use the paint bucket tool to apply the current color to the top layer of an object.

You can also use these tools to copy and apply styles from within the Composition window. For information on copying attributes such as the style or current fill using the Paste commands, see "Copying and pasting object attributes" on page 42.

To sample a color or style using the eyedropper tool:

1 Choose where you want to apply the sampled color or style: an object layer, the foreground, or the background.

2 Select the eyedropper tool .

3 Sample a color or style:

- Click in the Composition window where you want to sample a color from an object or the background.
- Drag the eyedropper tool to continuously sample colors from inside or outside the Composition window. (To sample colors from outside the Composition window, begin dragging from inside the window.) Release the mouse button to select the color.

- Shift-click to sample the style of an object. A white bar appears across the eyedropper tool. For more information on styles, see "Using the Styles palette" on page 90.
- Shift-drag to continuously sample the style of objects. Release the mouse button to select the new style.

As you use the eyedropper tool, the color in the foreground or background color box, Color palette, and any selected object changes dynamically.

Note: *Sampled colors in your composition are taken from the actual color of the objects and background, not the color displayed if you are viewing them in Active Preview.*

To apply a sampled color or style:

1 Select the paint bucket tool .

2 Apply the color or style:

- Click an object or the background to select it and paint it with the current color in the Color palette. If you select an object, the top layer is painted.
- Shift-click an object to select it and apply the last style sampled with the eyedropper tool. A vertical gray bar appears at the lip of the paint bucket tool.

Creating gradients

The Gradient palette lets you create a gradual blend between two colors in a layer. The Opacity palette creates gradients that are a gradual blend of opacity. The gradient is applied to the entire active layer of the selected object. Gradients can be created in several patterns for more complex blending. The five basic gradients are:

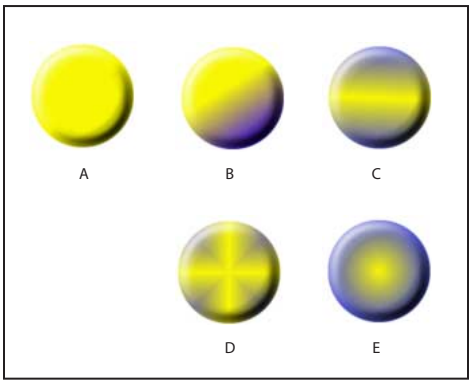
No Gradient Applies no gradient.

Linear Shades in a straight line from one edge of the object to the other.

Burst Shades using symmetrical linear gradients on either side of the center.

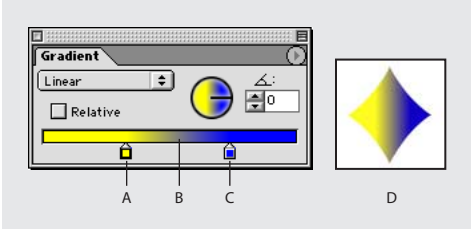
Double Burst Shades using two symmetrical burst gradients, at right angles to each other, each moving from the center to the edge of the object. Double burst gradients affect the exported file size because they change vector graphics to bit map.

Radial Shades from the center to the edge in a circular pattern.



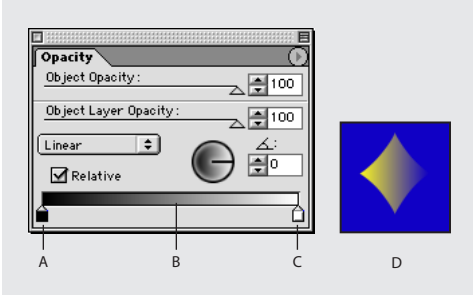
Gradient options
A. No Gradient **B.** Linear **C.** Burst **D.** Double Burst **E.** Radial

The Gradient palette lets you select the starting and ending colors. You can also adjust the relative distance from the edges of the object to where the starting color begins blending into the ending color. You can also specify if the gradient will rotate with the object using the Relative option. In order to switch between the relative and nonrelative settings, you must turn on the Shape Transform option in the Object menu.



Gradient palette gradient
A. Starting color stop **B.** Blending occurs between starting and ending color stops **C.** Ending color stop **D.** Resulting gradient

The Opacity palette lets you select the starting and ending opacity.



Opacity palette gradient
A. Starting opacity stop **B.** Blending occurs between starting and ending opacity stops **C.** Ending opacity stop **D.** Resulting gradient

To apply and edit a gradient:

1 Select the background, or an object and layer.

2 Choose Window > Gradient.

3 Select the kind of gradient you want.

4 Click the left color stop under the gradient bar to define the starting color of the gradient. (This color is the object color by default.) The square below the stop is outlined, indicating that the starting color is being edited.

5 Change the color by doing one of the following:

- Use the eyedropper tool to sample and apply a color.
- Use the Color palette to specify a color.

6 Define the ending color. Click the right color stop under the gradient bar. (This color is black by default.) Then choose a color as described in the previous step.

7 Drag the corresponding color stop left or right to adjust the location of the starting point or ending point of the gradient.

8 Choose Object > Transform > Shape Transform. Select Relative to rotate the gradient when you rotate the object.

9 Enter a value between 0° and 359° to specify the angle at which to apply the gradient. A preview of the gradient is displayed in the gradient angle indicator.

To apply an opacity gradient:

1 Specify the starting opacity in the Opacity palette (see "Using the Opacity palette" on page 84).

2 Choose the kind of gradient you want. For a description of the gradient types, see "Creating gradients" on page 87.

3 Click the left gradient stop under the gradient bar to define the starting opacity of the gradient. The square below the stop is outlined, indicating that the starting color is being edited.

4 Enter an opacity value for the starting opacity.

5 Click the right gradient stop under the gradient bar to define the ending opacity. Then choose an opacity as described in the previous step.

6 Drag the corresponding opacity stop left or right to adjust the location of the starting point or ending point.

7 Select Relative to rotate the gradient when you rotate the object.

8 Enter a value between 0° and 359° to specify the angle of the gradient. The preview of the gradient is displayed in the gradient angle indicator.

Chapter 9: Styles and the Library

You can combine a wide array of attributes—effects, colors, animations—to create unique objects. You can save these styles and objects in the Styles and Library palettes so that you can quickly access them for use in any composition. The Styles palette and Library also have predefined styles and objects ready for you to use.

Using the Styles palette

The Styles palette lets you save and apply styles to any object. A *style* is the set of attributes of an object. Object attributes include settings from various palettes, including the animation timeline and the Rollover palette. Styles do not include the type of object (geometric, text, or image), its shape, and any settings from the Transform palette or the Web palette applied to the style.

Consider the following guidelines when applying styles:

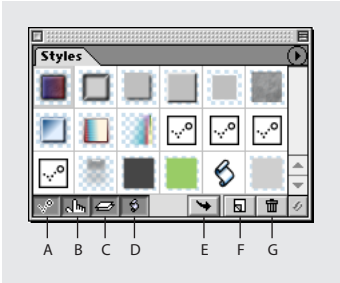
- Styles can be applied to any object in LiveMotion—geometric, type, and image.
- Rollovers can be saved and applied as styles (see "About rollovers" on page 125 and "Saving and applying rollover styles" on page 128).
- Animations can be saved and applied as styles (see "Creating custom styles" on page 91).
- A style can have up to 99 object layers that adopt the shape and type of object to which you apply the style.
- Each layer in a style has any combination of color, background fill, texture, 3-D effect, distortion effect, gradient, opacity, and any attributes set in the Filter and Layer palettes.
- You can copy and paste styles and individual style attributes (see "Cutting, copying, and pasting objects" on page 42).
- In addition to applying entire styles, you can create and modify the attributes individually.

To display the Styles palette:

1. Choose Window > Styles if the Styles palette is not open.
2. Choose a view for the sample Styles:

- Swatches View to display a grid of thumbnail examples of styles.
- Preview View to display a named list of styles along with a large thumbnail for the currently selected style.

- Name View to display a named list of styles with a small thumbnail example of each.



Styles palette
A. Animation **B.** Rollover **C.** Object Layers **D.** Apply **E** New style **F.** Trash

To display a subset of styles in the palette:

1 Choose Window > Styles.

2 Select one or more style attributes:

- Animation to display styles that only include animation.
- Rollover to display styles with rollovers or animated Object or Layer attributes.
- Object Layers to display styles with any number of layers.
- Script to display styles that include scripting.

Applying styles

The Styles palette enables you to apply styles to one or more objects.

To apply a style to an object:

1 Select the object to which you want to apply the style.

2 Select the style you want from the list.

3 Do one of the following:

- Double-click the style from the list.
- Click the Apply button in the palette
- Select a style and then press the Enter or Return key.
- Drag the style onto an existing selected object.

Creating custom styles

You can create custom styles by giving an object a set of attributes, and then saving it in the Styles palette. This saves the object attributes as a new style without saving the object itself.

To add a style to the palette:

1 Select an object whose style you want to save.

2 Do one of the following:

- Click the New button in the Styles palette.
- Drag the object onto the Styles palette.

3 In the Name dialog box, type a name for the style.

4 To keep the style layers intact, select Layers.

5 Select which aspects of the object you want to save as part of the style:

- Layers saves any layers or layer effects as part of the style.
- Ignore Color of First Layer prevents the fill attribute of the first object layer from being saved as part of the style. If checked, you will be able to apply this style to other objects without overriding their current color, for instance.
- Layer Animation/States keeps any layer-based animations or rollovers in the style. For more information on animation, see "Understanding animation terminology" on page 95. For information on rollovers, see "About rollovers" on page 125.
- Object Scripts keeps scripts assigned to objects in the style.
- Keyframe Scripts/Labels keeps scripts assigned to keyframes in the style.
- Object Animation/States saves any object-based animations or rollovers as part of the style.

6 Click OK.

The style is placed in alphabetical order in the list of available styles.

Note: *Sounds are not saved as part of an object's style. If you want to save a sound or apply it to an object, see "Working with sound" on page 114.*

To add a style to the palette by placing it in the Styles folder:

1 Rename the LiveMotion style file in Explorer (Windows) or the Finder (Mac OS) to give it the name you want to appear in the Styles palette. To be recognized in Windows, the filename must end in the .liv extension.

2 Place the file into the Styles folder located in the LiveMotion folder.

The style is placed in alphabetical order in the list of available styles the next time you start LiveMotion.

To share styles with other users, create the style and provide them with a copy of the file from the Styles folder.

To replace a style in the palette:

Add a style, and give it the same name as an existing style.

To delete a style from the palette:

1 In the Styles palette, select the style you want to delete.

2 Click the Trash button 🗑.

Note: *Deleting a style erases it from your hard drive. This action cannot be undone.*

About the Library palette

While styles store the attributes of an object to be applied to other objects, the Library palette stores an actual object or group of objects along with all its attributes, including animation and rollovers. The Library palette is a good place to store graphic elements, such as logos or navigation bars, that you will use in multiple compositions.

Viewing Library objects

Library objects can be displayed several ways in the Library palette,. You can choose subsets of objects to view, depending on which object formats you want to use.

To display the Library objects:

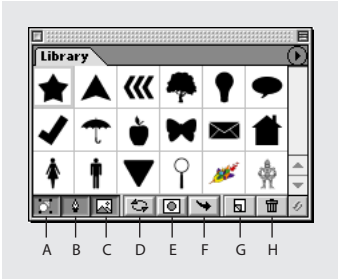
1 Choose Window > Library if the Library palette is not open.

2 Choose a view for the sample objects:

- Swatches View to display a grid of thumbnail examples of objects.
- Preview View to display a named list of objects along with a large thumbnail for the currently selected object.
- Name View to display a named list of objects with a small thumbnail example of each.

To display a subset of objects in the palette:

1 Choose Window > Library.



Library palette
A. LiveMotion **B.** EPS and PDF **C.** Bitmap **D.** Replace **E.** Make Active Matte **F.** Place Object **G.** New Object **H.** Delete Object

2 Select one or more object formats:

- LiveMotion to display native LiveMotion objects you have created.
- EPS to display Encapsulated PostScript vector objects or PDF to display Portable Document Format objects.
- Bitmap to display bitmap objects.

Using Library objects

Library objects can be placed into a composition as a new object, or they can replace existing objects in a composition. They can also be used as mattes so that their shape is transferred to an object in the composition. See "Applying mattes" on page 53.

To place a Library object in a composition:

1 Select the object in the Library palette that you want to place.

2 Place the object in the composition by doing one of the following:

- Click the Place button.
- Drag the object onto the composition.

To replace an object with a Library object:

1 Select the object you want to replace.

2 In the Library palette, select the Library object you want to use as the replacement, and do one of the following:

- Click the Replace button.
- Drag the Library object from the palette onto the object you are replacing.
- Press the enter or return key

To use a Library object as a matte:

1 Select the bitmap image to which you want to apply a matte.

2 In the Library palette, select the object whose shape you want to use as a matte and do one of the following:

- Click the Make Active Matte button.
- Drag the Library object from the Library palette onto the Active Matte display in the Properties palette.

Adding and deleting Library objects

Any object you create in LiveMotion can be saved as a Library object with all of its attributes intact. When you place a saved Library object into a composition, it can be modified like any other LiveMotion object.

To save an object in the Library:

1 Select the object you want to save

2 Drag the object onto the Library palette, and name the object. The object is placed in alphabetical order in the list of available objects.

To add an object to the palette by placing it in the Library folder:

1 Rename the Library object file with Explorer (Windows) or the Finder (Mac OS) to give it the name you want to appear in the Library palette. To be recognized in Windows, the file must end in the .liv extension.

2 Place the file into the Library folder located within the LiveMotion folder.

The object is placed in alphabetical order in the list of available objects the next time you start LiveMotion.

To replace an object in the palette:

Add an object, and give it the same name as an existing object.

To delete an object from the palette:

1 In the Library palette, select the object you want to delete.

2 Click the Trash button 🗑.

Chapter 10: Animating Objects

Animation brings your LiveMotion objects to life. You can animate every aspect of an object in LiveMotion, including motion, color, and size, and incorporate sound and interactivity. All objects and groups in a composition can be animated. Each object is named in the timeline, and can be animated independently or as a group.

Understanding animation terminology

All objects in a LiveMotion composition have certain object properties, such as position, rotation, scale, and color, that can be changed over time to create animation. For example, an object may move, rotate, appear, disappear, change size, change color, or interact with other objects or with users over time. Here are some basic concepts to help you understand how objects are animated with LiveMotion.

Timeline window The Timeline window displays all the objects in a composition and the animation events associated with each object in terms of time. (The Composition window displays all objects in terms of space.)

Duration bar A representation an object's lifespan, or duration. For example, the duration bar for the composition specifies how long the entire composition lasts as an animation. In addition, each object in a composition has its own duration bar. The length of the duration bar represents how long the object will last, while the start point and end point of the bar signal when the object appears in and disappears from the animation. By default the duration of all newly created objects matches the duration of the composition.

Animation Frames An animation frame (often simply called a "frame") represents a point in time. For example, if an animation is set to display at a rate of 10 frames per second, frame 20 would be two seconds into the animation.

Keyframes A keyframe marks the point in time where you specify a value for an object property or for a behavior to occur. Typical animations (those that don't use scripts and event handlers) using keyframes require at least two keyframes. LiveMotion creates animation between these two keyframes by interpolating transition frames using intermediate values based on the changing property values from one keyframe to the next. A keyframe contains information on the type and speed of change between the adjacent intermediate values. The closer the keyframes are, the faster the change will occur.

You can change properties with or without setting keyframes. However, if you do not set keyframes, or if you set only one keyframe, changes you make to the property value remain in effect for the duration of the animation.

Stopwatch Each object property has an associated Stopwatch button that you click to begin the animation process. Once the stopwatch is active for a specific property, LiveMotion automatically sets new keyframes whenever you change the current time and property value. When the stopwatch is inactive, no keyframes are present. If you type a value for a property while the stopwatch is inactive, the value remains in effect for the duration of the object.

Behaviors A behavior is an instruction to the animation to do something other than change an object property; that is, it's an instruction to interact with the animation, other objects, or user actions. For example, a behavior can play or stop an animation, jump to a different point in the animation, change the state of an object, load a URL, or even execute JavaScript code. Unlike in LiveMotion 1.0, LiveMotion 2.0 behaviors are accessible as scripts. For information on behaviors, see "Working with behaviors" on page 134.

Movie clips A movie clip is an animation that plays independently of the main animation. For example, you can create a logo that revolves continuously, even when the main animation stops. The ability to nest smaller, self-contained animations within larger animations is one of the most powerful and flexible animation features within LiveMotion. Each movie clip has its own duration bar.

Creating simple animations

There are different ways to create an animation—for example, you can start with existing art or import Illustrator layers as artwork, or you can attach scripts, create rollovers, and work with movie clip groups. In general, however, creating an animation usually involves a number of common steps.

To create a simple animation:

1 Open the Composition window, and choose a size and frame rate for the animation. (See "Working with compositions" on page 15.)

2 Open the Timeline window. (See "Using the Timeline window" on page 97.)

3 If your composition needs to be a specific duration, drag the composition timeline's end handle to the desired length. If you don't know how long your composition will be, skip this step, and the composition's length automatically adjusts to accommodate all objects within it. (For more information on both of these concepts, see "Setting the composition's duration" on page 102.)

4 Move the current-time marker to where you want the object to begin in the animation (often 0 seconds).

5 In the Composition window, Create or add the object you want to animate.

6 In the Timeline window, drag the start and end points of the object's duration bar if you want to adjust when the object will begin and end in the animation. (See "Changing objects' durations: explicit and implicit duration" on page 110.)

7 Move the current-time marker to the point from which you want to begin animating a change in the object's property, then click the stopwatch to set an initial keyframe for that property. (See "Working with keyframes" on page 102.)

8 Move the current-time marker to the point at which you want to specify what the property is changing to, then change that property. (See "Creating keyframes" on page 103.)

9 In the Composition window, add any further objects, and make any additional changes.

10 Optimize the file, and choose export settings if, needed. (See "Optimizing your compositions" on page 143.)

11 Preview the file on a Web browser. (See "Previewing your compositions" on page 147.)

12 Save the file. (See "Saving compositions" on page 17.)

13 Export the file in SWF format for use on Web browsers. (See "Using the Export palette" on page 149.)

Optimizing exported animations

A variety of factors affect the final file size of your exported animation, including the number of keyframes, the frame rate, and the types of changes applied to objects. For example, if you add a second layer to a vector object, LiveMotion converts the object to a bitmap when you export the file. For a one-inch square vector drawing, that would increase the object from a 52-byte vector object to an 807-byte bitmap object—an increase of over 1,500 percent.

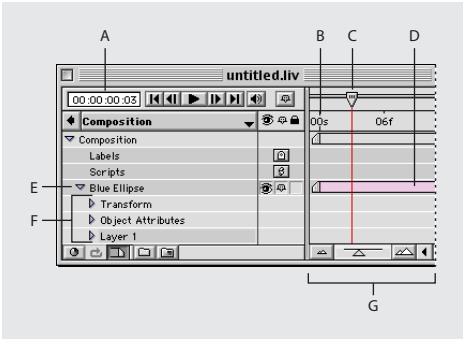
For information on minimizing file size in your animations, see "Optimizing your compositions" on page 143.

Using the Timeline window

You animate objects in a composition using the features available in the Timeline window. While the Composition window shows how the composition looks at any particular frame in the animation, the Timeline window lets you move the Composition window through time, displaying what the composition will look like at different points in the animation. Although you may have multiple compositions open, there is only one Timeline window, which reflects the currently active document.

To open the Timeline window:

Choose Timeline > New Timeline Window.



Timeline Window
A. Current time display **B.** Time interval **C.** Current-time marker **D.** Duration bar **E.** Object **F.** Object properties **G.** Timeline window

The timeline window contains these major elements:

Current-time display. At the top left of the Timeline window is the current-time display. This indicates the location of the current-time marker in hours, minutes, seconds, and frames.

Timeline. Most of the Timeline window is taken up by the timeline itself. The timeline shows the lifetime of the animation, starting at 0 seconds on the left and continuing to the end on the right.

Time intervals. Tick marks under the current-time marker represent seconds and frames in the animation.

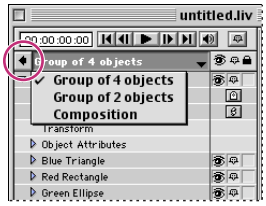
Current-time marker. At the top of the Timeline window is the current-time marker (the triangular marker with the red vertical line running through the timeline display). You can drag the current-time marker left or right to move the animation backward or forward in time. You must move the current-time marker to the desired point in time before adding a keyframe for an object property.

Time track Below the time interval tick marks is the time track, which displays the duration of objects (when they start and end in the animation) as well as key frames at which changes in the animation occur.

Objects and object properties. The left side of the timeline displays one row for each object or object property visible in the object hierarchy. Object rows contain the object's duration bar. Property rows display keyframes that you have added for that property.

Using the timeline navigator

The timeline navigator displays the name of the highest-level timeline displayed in the Timeline window. Usually, this is the composition's timeline. However, if you double-click a movie clip object or movie clip group's timeline to display and work within that timeline, its name is displayed in the timeline navigator. You can use the navigator to move back up in the hierarchy to the composition's timeline.



The timeline navigator and Step Out button

To move up using the timeline navigatior:

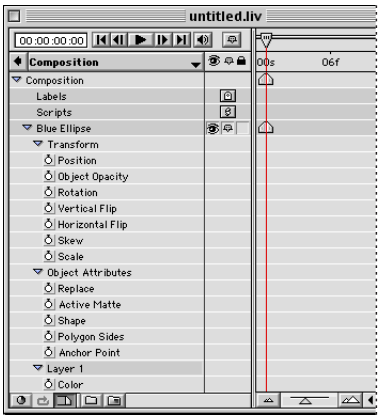
1 Do one of the following:

- From the pop-up menu, choose the higher-level timeline you want to move to.
- Click the Step Out button ◆ next to the timeline's name to move up one level in the movie clip hierarchy.

Using the object and property hierarchy list

The left side of the Timeline window contains a hierarchical listing of all objects in the current timeline, along with their properties. Objects are listed in their stacking order in the composition, with topmost objects listed first. If needed, you can resize the width of the object hierarchy panel.

When you create or add an object in the Composition window, it is added to the Timeline window with a descriptive name, such as "medium blue ellipse." This name changes if you change the color or shape of the object. You can rename objects at any time, in which case the name will no longer change. (See "Selecting objects with the Timeline window" on page 99.)



Object and property hierarchy list

You can expand or collapse the hierarchical listing to reveal or hide objects and their properties. There are three kinds of object properties:

- Transform includes transformation properties such as position, rotation, and scale. These properties are available for all objects.
- Object Attributes include additional properties specific to the selected object type (such as Font for a text object, for example).
- Layer lets you animate the properties of each layer in an object separately. These include layer-specific properties such as color, 3D effects, and distortions.

To expand or collapse the object and property hierarchy:

Click the triangle next to a timeline's name or a property.

To adjust the width of the object hierarchy panel:

Drag the resize bar located to the right of the Hide column, the Lock column and the Shy column.

Selecting objects with the Timeline window

The Timeline window is particularly useful for selecting objects that are overlapping, small, or otherwise hard to select. For information on the other ways to select objects, see **"Editing objects" on page 38**.

To select objects with the Timeline window:

1 Do any of the following:

- Click the object's name.
- Shift-click object names to add or remove objects from the selection.
- Drag to select multiple object names.
- Click the object's duration bar.

- Click the gray track to the left or right of the duration bar.

Renaming objects in the Timeline window

Whenever an object is added to a composition, it is automatically added to and named in the Timeline window with a descriptive name, such as "light red rectangle." This name changes if you change the color or shape of the object. You can rename objects at any time. In this case, the name will no longer change.

To rename an object in the Timeline window:

1 Click on the object name in the object hierarchy panel of the Timeline window.

2 Do one of the following:

- Press Enter.
- Choose Object > Edit Name.

3 Type a new name, and click OK.

Changing the stacking order of objects with the Timeline window

The stacking order refers to the front-to-back order of objects in the composition. New objects are created in front of older objects. The order of objects in the object hierarchy panel of the Timeline window reflects the stacking order of the objects in the composition. You can change the stacking order of objects by dragging them to a new level in the object hierarchy panel.

You can also change the stacking order of objects by using the Arrange commands (see "Stacking objects" on page 39).

To change the stacking order of timelines by dragging:

In the Timeline window, drag the object's name to another level. (You can move objects that are hidden or shy; you cannot move objects that are locked.

An indicator bar shows where the dragged object will be placed in relation to other objects in the Timeline window.

Showing, hiding, and locking objects

The Timeline window lets you control whether objects are displayed or editable:

- Hide lets you hide selected objects in the Composition window, while still displaying them in the Timeline window. It also turns off soundtracks and sounds associated with hidden objects. Hiding objects is useful when the composition is complex or objects are overlapping. It also speeds up processing for complex animations.

Note: *Hidden objects and sounds do not export.*

- Shy lets you hide selected objects in the Timeline window, while still displaying them in the Composition window. When an object is set to Shy and Shy is turned on, the object does not appear in the timeline. Shy is useful when you want the Timeline window to show only those objects you want to adjust. Shy objects still appear in the Composition window and can be edited there.
- Lock makes objects unselectable and uneditable in the Composition window and in the Timeline window. Lock is useful for protecting object from being accidentally edited, particularly in a crowded composition.

To hide or show objects:

1 Click in the Eye column next to the timeline for that object. The icon changes from an eye icon (object is visible) to a blank square (object is invisible).

To mark objects as shy:

Click the Shy button next to the timeline for that object.

To hide or show all shy objects:

Click the Hide Shy Objects button to the right of the sound button at the top of the Timeline window.

To lock or unlock objects:

Click in the Lock column next to the timeline for that object. The icon changes from an blank button (object is unlocked) to a locked button (object is locked).

Understanding the Keyframe column

To the right of the object hierarchy is a column displaying keyframe information for object properties. When you activate an object property, this column contains the following:

- A checkbox that allows you to set or remove a keyframe for the property.
- Arrows that let you jump to the previous or next keyframe for that property.
- A Scripts button for attaching scripts to points in the timeline.
- A Labels button for attaching labels to points in the timeline.

Using the playback and sound controls

The top left of the Timeline window contains playback and sound buttons for previewing your animation. In addition, sound objects have an associated sound icon in the keyframe column that lets you specify whether an individual sound plays.

To use the controls:

Do any of the following:

- Click the Play/Pause button to toggle between playing and pausing the animation.
- Click the Forward One Frame button or the Backward One Frame button to move by a single frame in the animation.
- Click the Beginning button or the End button to go to the beginning or end of the animation.
- Click the Sound button to turn the sound on or off for all sounds in the animation.
- Click the Sound icon in the eye column to turn a particular sound on or off.

Understanding the current-time display

The counter at the top left of the Timeline window shows the location of the current-time marker in hours, minutes, seconds, and frames. This is the convention used by the Society of Motion Picture & Television Engineers (SMPTE). For example, a display of 00:01:51:15 indicates a point 1 minute 51 seconds and 15 frames into the animation. With a frame rate of 30 frames per second (fps), this would be 1 minute and 51.5 seconds.

The current-time display counts frames in single increments until it reaches a new second, then starts over at 0. Thus, if your frame rate is set to 12 frames per second, the current-time display would advance from 00:00:00:11 to 00:00:01:00.

Zooming into and out of the timeline

You can zoom in and out of your timeline just as you can zoom in and out of your composition. When you zoom in to the timeline, you view a shorter duration in the window, making it easier to work with keyframes that are very close together. Zooming out allows you to see more of the timeline and is especially useful for an overview of object durations.

Note: *Although an object may look pixellated when zoomed above 100%, it may export to SWF as a vector. To see whether the object will export as a vector or a bitmap, use the Preview Export Compression command (see "Previewing your compositions" on page 147.)*

To magnify and reduce your view of the timeline:

Do any of the following:

- Click the zoom buttons , to zoom out or in, respectively.
- Drag the zoom slider to change the magnification.

Setting the composition's duration

The length of the composition's duration bar specifies how long the composition lasts as an animation, as opposed to how long the individual objects within it last. The start point of the composition's duration bar, and thus of an animation, is at frame 0. Its duration is determined by the end point of the composition's duration bar.

To set the composition's end point:

In the Timeline window, drag the end point of the composition's duration bar to specify the time at which the composition ends.

Working with keyframes

Animation generally requires at least two keyframes. Change begins at the first keyframe and continues until it reaches the second keyframe. LiveMotion adjusts the values of a property at each regular animation frame to create a smooth transition from one keyframe to the next.

However, scripts let you create animation by writing a script attached to a single keyframe, in response to a user's or a server's interaction. Animation can also be created using a single keyframe, an OnEnterFrame handler, and a label. (See the *LiveMotion 2.0 Scripting Guide*.)

A keyframe contains the following information:

- Which object property is changing.
- When the change occurs.
- The value of the object property being changed.
- The type of change (for example, smooth or abrupt) between the values at the previous, selected, and next keyframes.

You can create, move, copy, delete, and modify keyframes.

Creating keyframes

You can create keyframes for any property of any object at any point on the timeline. By changing one or more properties over time, you create an animated effect. For example, you can change the position, anchor point, and color independently at different points in the animation, by creating keyframes with different values for each of these properties.

Once you've created a keyframe for a specific property, you can move the current-time marker and change the value of that property to create a new keyframe at the current-time marker. If the current-time marker is at an existing keyframe for a property, changing the property alters the value for that keyframe.

To set the first keyframe for an object property using the stopwatch button:

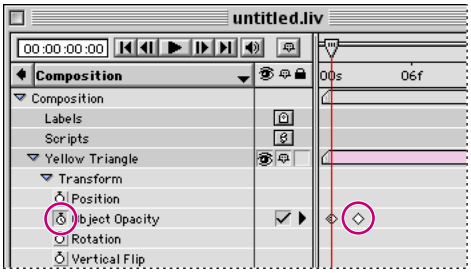
1 Expand the object hierarchy until you can see the property that you want to animate.

2 Move the current-time marker where you want to add a keyframe.

3 Click the stopwatch button next to a property to activate it. An initial keyframe is set at the current-time marker.

4 Specify the value you want that property to have at that time. (Most of these properties are associated with palettes listed under the Window menu.)

For information on animating object properties, see "Animating object and layer properties" on page 107.



An object property keyframe

To add additional keyframes for an object property:

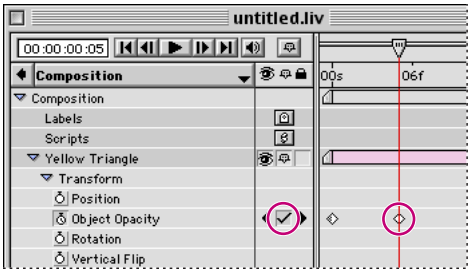
1 Expand the object hierarchy until you see the property that you want to animate.

2 Move the current-time marker to where you want to add a new keyframe.

3 Do one of the following:

- Change the value for the object property you are animating. A keyframe is automatically added.

- Click the empty checkbox in the keyframe column. This adds a keyframe without changing the value of the property, keeping the property the same between the two keyframes.



The keyframe box adds keyframes without changing property values.

To create keyframes using the New Keyframe commands:

1 Select the object for which you want to create a keyframe. (You can select multiple objects and create a new keyframe for each at the same time.)

2 Select the Timeline window.

3 Choose Timeline > New Keyframe, followed by one of these commands, depending on the type of new keyframe you want to create:

- New Position Keyframe.
- New Rotation Keyframe.
- New Scale Keyframe.
- New Opacity Keyframe.
- New Anchor Point Keyframe.

Changing keyframe interpolation

Keyframe interpolation determines how values change from one keyframe to the next. You can apply one or more interpolation methods to any keyframe for most object properties. Some interpolation methods create abrupt changes or sharp angles in motion, while others provide a smooth transition and rounded curves. For example, by applying different interpolation settings to position keyframes, you can make an object decelerate as it drifts from the first keyframe to the second, and then make it quickly bounce off a third keyframe as it rounds a curve and speeds toward the final keyframe.

To change the interpolation of a keyframe:

1 In the Timeline window, select one or more keyframes for a single object property.

2 From the Timeline menu, choose one of more interpolation methods:

- Linear to change property values equally from one keyframe to the next. Linear keyframes create angled turns for position- based transformations and sharp transitions for time-based transformations. For example, you might use this to show a ball bouncing of a wall.
- Auto Bezier (the default) to adjust property values to create curved motion or smooth transition from one keyframe to the next. This is useful for animating smooth movements, such as objects following a path.

- Hold Keyframe to create an abrupt change from one keyframe to the next. With Hold keyframe, there is no interpolation. For position-based transformations, the object holds its current position or property setting until it jumps to its new settings when the current-time marker reaches the next keyframe. For other transformations, the object property abruptly switches from one setting to the next at the next keyframe.
- Ease In to slow the transition rate approaching the keyframe. For example, you might use this to animate a car decelerating to a stop.
- Ease Out to slow the transition rate leaving the keyframe and gradually increase the transition rate. For example, you could use this to animate a car gradually speeding up.

Navigating and moving keyframes

Once an object property has been activated, the keyframe column displays a keyframe checkbox and previous keyframe and next keyframe arrows. These arrows move the current-time marker to the previous or next keyframe for that property of the selected object.

The Previous Keyframe and Next Keyframe commands move the current-time marker to previous or next keyframe for the selected object, regardless of property. For example, suppose you have keyframes at one second and three seconds for position and at two seconds and four seconds for color. Choosing the Next Keyframe command would first move the current-time marker to the position property at one second, choosing it again would move the marker to the color property at two seconds, and so on.

To move the current-time marker to the previous or next keyframe:

Do one of the following:

- Click the left or right arrow in the keyframe column to move to the previous or next keyframe for that property of the selected object
- Select the Timeline window, and choose Timeline > Previous Keyframe or Timeline > Next Keyframe.

To move a keyframe:

Drag the keyframe to a new position in the timeline. Multiple keyframes can be selected by Shift-clicking, and can then be moved as a group, maintaining their relative positions.

Reversing keyframes

You can reverse keyframes by dragging them. In addition, the duration bar enables you to reverse the position of all keyframes within the bar. For example, you might have made an object that changes from red to blue as it travels from left to right. By reversing the keyframes, the object will not change from blue to red and travel from right to left.

To reverse a keyframe:

Drag the keyframe past another keyframe in the Timeline window.

To reverse keyframes with the duration bar:

1 Alt-drag (Windows) or Option-drag (Mac OS) one end of the duration bar past the other. The cursor changes to a double-headed arrow and stopwatch when it is over the end of the duration bar.

For example, assume the duration bar's start point is at 2 seconds and its end point is at 6 seconds (so that it is 4 seconds long). You can Option-drag the start point to 10 seconds, so that the keyframes are reversed, but the duration bar is still 4 seconds long. The duration bar is now in a new location in the timeline (starting at 6 seconds and ending at 10 seconds).

2 Drag the duration bar from the middle to move it to the time you want in the timeline.

Using the previous example, you would drag (not Alt/Option-drag) the duration bar from the middle so that it again starts at 2 seconds and ends at 6 seconds, but with the keyframes now reversed.

Copying and pasting keyframes

You can copy and paste keyframes from one object to another, and even from one composition to another. The new keyframes are added to the object's original ones. If the new keyframe is at the same frame as an existing one, the new keyframe's value replaces the original keyframe's value.

You can also duplicate keyframes within a property.

To copy and paste keyframes:

1 Select the keyframes you want to copy. Shift-click or shift-drag to select multiple keyframes, even from multiple properties of an object.

2 Choose Edit > Copy.

3 Select one or more objects to which you want to apply the keyframes.

4 Choose Edit > Paste.

To duplicate keyframes within a property:

1 Select the keyframes you want to duplicate.

2 Alt-drag (Windows) or Option-drag (Mac OS) the keyframes to duplicate keyframes within that property.

Proportionally adjusting keyframes

You can use the duration bar to proportionally adjust the keyframes associated with it. For example, suppose you have an object that is 4 seconds in duration, with keyframes at 1 second, 2 seconds, and 3 seconds. If you proportionally adjust the duration bar to make it 8 seconds long, the keyframes stretch to 2 seconds, 4 seconds, and 6 seconds, respectively.

To proportionally adjust keyframes:

1 Alt-drag (Windows OS) or Option-drag (Mac OS) the start point or the end point of the duration bar. The cursor changes to a double-headed arrow and stopwatch when it is over the end of the duration bar.

Deleting keyframes

You can delete any keyframe from the timeline. When you delete an interior keyframe (that is, neither the first nor last keyframe for a property), the value of the property at each of the affected regular animation frames is adjusted to create a smooth transition between existing keyframes.

To delete a keyframe:

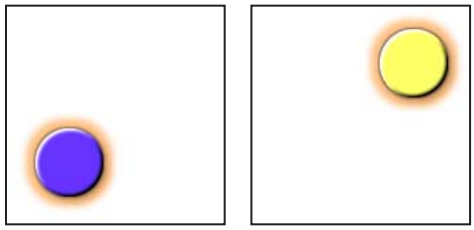
Do one of the following:

- Align the current-time marker with the keyframe that you want to delete. Click the checkbox in the keyframe column for that keyframe.
- Select a keyframe (Shift-click to select additional keyframe). Press Backspace (Windows) or Delete (Mac OS).
- To delete all keyframes for one object property, deactivate the object property by clicking its stopwatch icon in the object hierarchy. When you click the stopwatch icon to deactivate a property, keyframes for that property are removed, and the value of the property becomes the value at the current time. You cannot restore deleted keyframes by reselecting the stopwatch.

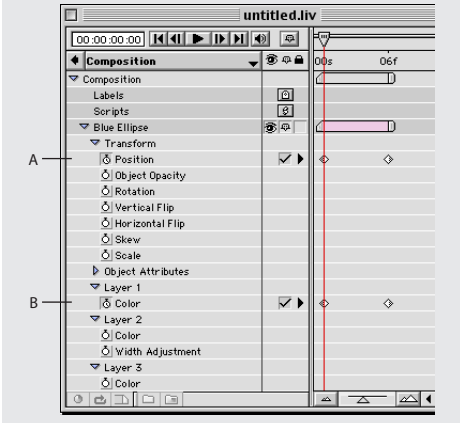
Note: *If you accidentally delete keyframes, choose Edit > Undo.*

Animating object and layer properties

You can animate the Transform properties and Object Attributes properties, which apply to the entire object. You can also animate the Layer properties, which affect only individual layers of the object. For example, color is a layer property, and only applies to the selected layer.



Color is a Layer property, and affects only that layer



The Timeline window
A. Object property **B.** Layer property

The procedure for animating object properties and layer properties is basically the same.

To animate an object or a layer of an object:

1 Create or place the object you want to animate. All objects in LiveMotion contain one or more layers, which you can animate.

2 Choose Timeline > Show Timeline Window to open the Timeline window.

3 Move the current-time marker to where you want the property to change.

4 Click the triangle to the left of the object's name in the timeline to display the three main categories of properties you can animate: Transform, Object Attributes, and one or more Layer properties (depending on the number of layers in the selected object).

5 Click the triangle to the left of Transform, Object Attributes, or Layer (number) to display the properties you can animate.

6 Click the stopwatch button to activate the desired property.

7 Move the current-time marker to where you want to make the next change.

8 Edit or manipulate the object as necessary.

Once a property has been activated, any change to its values automatically creates a new keyframe where the change occurs.

9 Set the keyframe interpolation method if necessary. See "Changing keyframe interpolation" on page 104.

Object properties can be animated to create special effects. For example, you can animate the position of an object so that it begins or ends off screen. You do this by either entering X and Y values in the Transform palette that exceed the dimensions of your composition, or by simply dragging the object off the composition (you may need to enlarge the Composition window to do this). You can also enter rotation values that exceed 360° to make an object rotate more than once, or you can animate an object's anchor point while animating its rotation, creating a "tailspin" effect.

Removing all keyframes and changes from an animated object

The Clear Animation command removes all keyframes and changes from the selected object in the timeline.

To remove the animation from a selected object:

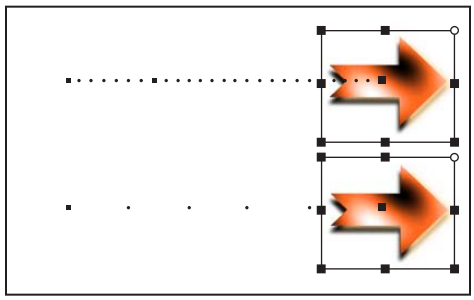
1 Move the current-time marker to the point in the timeline where you want to freeze the object's properties.

2 Choose Timeline > Clear Animation.

Working with motion paths

The motion path is a visual representation of the path an object follows during the course of an animation.

Each dot on a motion path represents the object's position at a frame of animation. Squares represent the object's position at a keyframe. Because the frame rate is constant, the farther apart the dots or squares on a motion path are, the faster the object moves along the path.



The bottom arrow uses fewer frames (and thus, takes less time) to move the same distance.

You cannot edit a motion path directly. Instead, you do one of the following:

- Change the position of the object at an existing Position keyframe.
- Change the position of the object where no Position keyframe yet exists, creating a new Position keyframe in the process.
- Apply an interpolation method to a Position keyframe to alter the way the object moves into or out of that keyframe.

The motion path automatically reflects these changes.

To view or hide an object's motion path:

1. In the Composition window, select the object whose motion path you want to view.
2. Choose View > Preview Motion Path.

To modify an object's motion path:

1. In the Composition window, select the object whose motion path you want to modify.
2. Choose View > Preview Motion Path.
3. Do one of the following:

- To change the motion path at an existing Position keyframe, drag the current-time marker in the Timeline window to that keyframe. Then, in the Composition window, drag the object to the location you want it to be at that point in the animation.
- To change the motion path with a new Position keyframe, drag the current-time marker in the Timeline window to the point in the animation where you want the object to be in another location. Then, in the Composition window, drag the object to the location you want. (See "Creating keyframes" on page 103.)
- To change the motion path with keyframe interpolation, select one or more Position keyframes for the object. Then choose an interpolation method from the Timeline menu. (See "Changing keyframe interpolation" on page 104.)

Changing objects' durations: explicit and implicit duration

The duration of an object or composition is determined by its start and end points. The start and end points mark the frames at which the object/composition appears and disappears. When the animation reaches the object's/composition's start point, the object/composition appears. When the animation reaches the object's/composition's end point, the object/composition disappears/stops.

The Implicit/Explicit button lets you switch between two types of duration for objects and the composition:

- An object with an explicit duration exists for the amount of time indicated by its duration bar in the timeline.
- An object with an implicit duration does not last a specific amount of time and so does not have a duration bar of a specific length. Instead, its duration is linked to the length of the composition, to the end handles of other objects, or to the position of its own keyframes. In other words, an object with an implicit duration remains visible in the composition for as long as necessary.

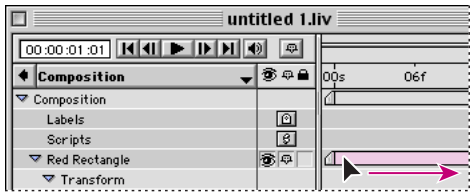
For information on making all keyframes associated with a duration bar move proportionally to it, see "Proportionally adjusting keyframes" on page 106.

To set an object's start and end points:

1 Select the object whose duration you want to change. (Shift-click to select multiple objects.)

2 In the timeline, drag the duration bar or the start and end handles at the ends of the duration bar to change the times at which the object appears and disappears from the animation.

- Drag the start handle to change the object's start time.
- Drag the end handle to change the object's end time.
- Drag the middle of the duration bar to change both the start and end times while maintaining the object's duration.



The duration bar controls an object's life span.

To specify whether an object's duration is implicit or explicit:

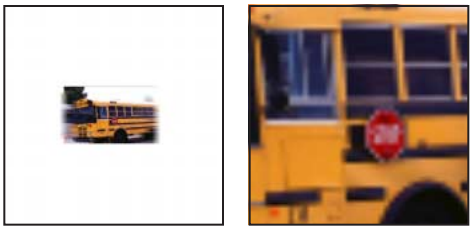
Click the Implicit/Explicit Length button at the bottom left of the Timeline window.

Optimizing the resolution and file size of bitmap objects

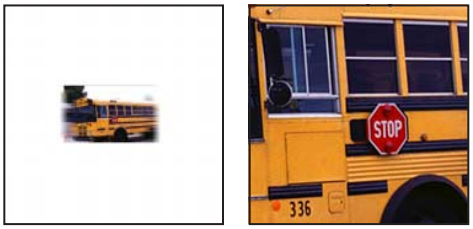
When an animation is played or saved, LiveMotion renders bitmap objects at screen resolution *before* applying transformations to them. This poses two potential problems:

- If an animation scales up low-resolution images, results may be unacceptable.
- If the image is much larger or at a higher resolution than you need, it is exported at that large file size, even though it will display at a smaller size. For example, suppose you had a 720-pixel by 720-pixel image (which would appear as a 10-inch by 10-inch object in your composition). Even if you displayed it only as a 1-inch by 1-inch object, the original, 10-inch by 10-inch, 720 pixel by 720-pixel image file would be exported and then displayed at the smaller size.

The solution is to select the point in the animation at which you want the bitmap image to look its best, and then set that point as the render size for the image. LiveMotion will then render the object at screen resolution for this size, even if the object is smaller or larger at a different point in the animation. The benefit is that not only will the image still have a sharp image at the point you select, it will also export the image based on that size, greatly reducing the file size.



Result if render size is set at smaller size



Result if render size is set at larger size

To set the render size of an image:

1 In the Timeline window, set the current-time marker to the point in the animation where you want the object to look its best.

2 Select the image object, and choose Object > Transform > Make Actual Size.

Working with animated GIFs

The Time option in the Properties palette enables you to move from frame to frame of an animated GIF. This is useful if you want to animate the GIF image so that it slows down, speeds up, or goes backwards in time compared to how it ordinarily plays.

To work with an animated GIF:

1 Select the animated GIF.

2 In the Timeline window, move the current-time marker to a frame other than frame 0.

3 Choose Window > Properties to display the Properties palette.

4 In the Properties palette, enter different values for the Time option. Higher numbers move the GIF further forward in its animation.

Previewing animations

Except for the simplest animations, you should test your animation repeatedly, making adjustments as necessary. There are several ways to view an animation, but it is probably best to preview your animation first within the Timeline window. Once the animation seems to be working correctly, you can then use the Preview Mode or preview the composition in a Web browser for a final check.

For further options for previewing your animations, see "Previewing your compositions" on page 147.

Controlling playback

You control playback using the playback buttons. These buttons let you play the animation, move forward or backward a frame at a time, or move to the first or last frame of the animation.

Note: *The Play button does not play animations inside movie clips.*

To preview the animation:

1 Move the current-time marker where you want the animation to start.

2 Click the Play button ▶ in the Timeline window or the space bar on the keyboard to preview the animation.

The Play button changes to a Pause button ⏸, and the animation plays, starting at the position of the current-time marker.

3 To pause the animation, click the Pause button in the Timeline window or the space bar on the keyboard.

4 To move the current-time marker (which determines the frame you are currently viewing), click any of the remaining playback buttons:

- Click the First Frame button ⏮ to move the animation to the first frame in the composition time track.
- Click the Frame Backward button ◀ to move the animation backward a single frame.
- Click the Frame Forward button ▶ to move the animation forward a single frame.
- Click the Last Frame button ⏭ to move the animation to the last frame in the composition time track.

Previewing by scrubbing

Another way to preview your animation is with a technique called *scrubbing*. Scrubbing means dragging the current-time marker back and forth across the timeline. The faster you drag the current-time marker, the quicker the animation plays back. You can also stop at any point or drag backwards to see the animation in reverse.

To scrub the animation:

Do one of the following:

- To scrub regular objects, drag the current-time marker forwards or backwards.

- To scrub movie clip groups as well as regular objects, Alt-drag (Windows) or Option-drag (Mac OS) the current-time marker forwards or backwards.
- To hear audio in the timeline while scrubbing, Ctrl-drag (Windows) or Command-drag (Mac OS) the current-time marker forwards or backwards.

Previewing using Preview mode or a Web browser

Because of differences between Web browsers and rendering considerations, it is a good idea to preview your animation outside of the Timeline window. This can be done within LiveMotion using the Preview mode, or in a browser using the File > Preview In command.

Using Preview mode or the Preview In command is the only way to preview interactive elements such as movie clips, rollovers, and scripts.

To preview your composition in LiveMotion:

1 Click the Preview Mode button at the bottom of the toolbox or choose View > Preview Mode.

2 Move the cursor into the Composition window to load and run the animation.

3 Click the Edit Mode button to exit the Preview mode.

To preview your composition in a Web browser:

1 Save your composition.

2 Choose File > Preview In and select a Web browser.

Note: *It is best to preview all finished animations in both Netscape Navigator and Microsoft Internet Explorer, and on Windows as well as Mac OS, since different combinations of browsers and platforms may display your animation differently.*

3 When you are finished, exit your browser and return to LiveMotion.

Saving and placing animated objects to the Library

Once you have created an animation, you may want to save it for future use. You can save animated objects to the Library. Once saved to the Library, these objects can be placed into any composition at any time, and their animation will remain intact. See "Adding and deleting Library objects" on page 94.

To add an animated object to the Library:

1 Drag the object from the Composition window into the Library palette.

2 Name the object, and click OK.

To place an animated object from the Library:

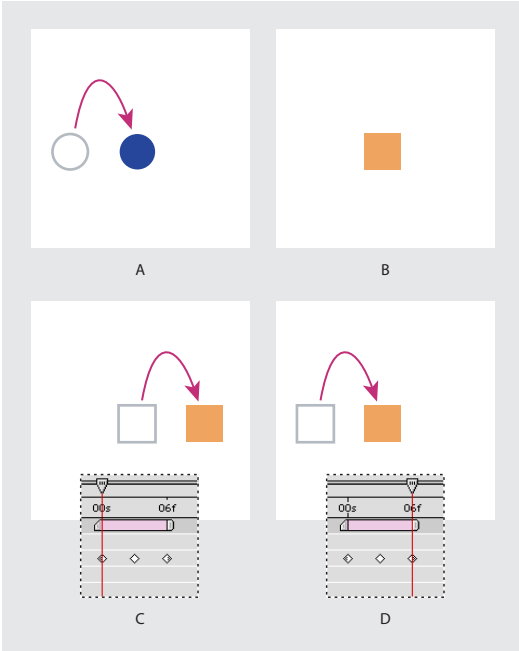
Place the object in the composition by doing one of the following:

- Drag the object from the Library palette to the Composition window.
- Select the object in the Library palette, and click the Place button.

Saving and applying animations as styles

Any animation that you add to an object is simply a set of instructions that are applied to the object when the composition is opened or when some trigger is applied (such as moving the cursor onto a rollover). Since these instructions are separate from the object itself, they can be stored as a style and applied to other objects at any time. In other words, animated styles are just like any other styles contained in the Styles palette, except that they contain animation instructions along with the rest of their style information. (For instructions, see "Using the Styles palette" on page 90.)

The position of the current-time marker is saved as part of the style. When you apply the style to an object, the position of the current-time marker when the style was created determines how the animation is applied to the new object. For example, if an animation changes the position of the object, and the current-time marker was at the beginning of the animation when the style was created, the object will start at its current location and move from there. If the style was created when the current-time marker was at the end of the animation, however, the object will end up at its current location after its animation plays.



Applying an animation style
A. Animation saved as a style. **B.** Target object. **C.** With current-time marker at beginning when style created, target object represents where animation starts from. **D.** With current-time marker at end when style created, target object represents where animation ends.

Working with sound

Except for sounds triggered by rollovers, all sounds exist solely in the timeline. If a sound is added to the composition using either the Place command or by adding a sound from the Sounds palette, the sound appears as an object in the timeline. Sounds can be added to movie clip timelines as well, by first opening the movie clip timeline and then dragging the sound into the Timeline window. In either case, the sound can be manipulated and animated in much the same way as you would any other object.

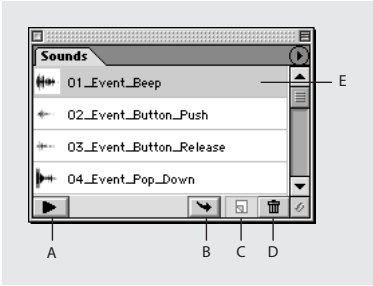
Here are a few points to consider when working with sound:

- It's a good idea to limit sound files to 16-bit sound, since the files are exported at no more than that.
- Larger bit sizes, such as 24-bit sound, increase the size of the files and, consequently, take longer to download. Moreover, most sounds are compressed when used in a SWF environment, and sounds played as part of a Web page or Web animation are typically amplified by speakers that don't replicate the quality possible in 24-bit sound.
- Event sound—that is, a sound that must be fully downloaded before it is can play—is useful for short sounds, small sound files, and sounds that will be played repeatedly (such as those attached to rollovers or that are looped for a background sound.
- Streaming sound— that is, a sound that can play while it is being downloaded—is useful for long sounds, large sound files, sounds that will play only once, or sound that needs to be synchronized to begin at a particular frame in an animation.

For more information on using sounds with rollovers, see "Attaching sounds to rollovers" on page 127.

Applying sounds

The Sounds palette lets you apply a sound to your composition either as part of an animation effect or in using a rollover. You can add your own sounds to the palette, or use the ones provided. For more on things to consider when using sounds with rollovers, see "Attaching sounds to rollovers" on page 127.



Sounds Palette
A. Play Sound button **B.** Apply button **C.** New sound button **D.** Trash **E.** Selected sound

To display the Sounds palette:

1 Choose Window > Sounds.

2 Choose a display option from the Sounds palette menu:

- Swatches View to display a scroll list of thumbnail examples of sounds.
- Preview View to display a scroll list of names of sounds with a large thumbnail for the currently selected sound.
- Name View to display a scroll list of names of sounds with a small thumbnail example of each.

To preview a sound using the Sounds palette:

1 Select a sound in the palette.

2 Play the sound:

- Click the Play Sound button ▶.
- Press Enter (Windows) or Return (Mac OS).

To apply a sound:

1 Select the element in the composition to which you want to apply the sound:

- To apply the sound to an animation, move the current-time indicator to a the time at which you want the sound to play. For more information, see "Working with sound" on page 114.
- To apply the sound to a rollover, select an object. Then use the Rollovers palette to select the object state that will trigger the sound. For more information on rollovers, see "About rollovers" on page 125. For information about attaching sounds not included with LiveMotion, see "Attaching sounds to rollovers" on page 127.)

2 Do one of the following:

- To apply sound using the Sounds palette, select the sound in the palette. (Press the Play Sound button ▶ to hear the sound.
- To apply sound by dragging and dropping a sound file, open a folder or directory containing the sound file.
- To apply the sound by placing it, choose Edit > Place and select the sound you want to place.

3 Apply the sound:

- Click the Apply button ↘ at the bottom of the Sounds palette.
- Drag the sound from the palette or folder into the Composition window or into the Timeline window to add it to the animation.
- Drag the sound from the palette or folder onto the rollover object in the Composition window.
- Click Open in the Place palette.

Adding sounds to the Sounds palette

You can add sound files created in other applications to the collection of sounds provided in the Sounds palette. Adobe LiveMotion supports most common sound formats, including AIFF and WAV.

To add a sound to the palette by dragging a sound file:

1 Open a folder or directory containing the sound file.

2 Make Adobe LiveMotion the active application.

3 Drag the sound file onto the Sounds palette.

4 Enter a name for the sound, and click OK.

A copy of the sound file is saved as a sound and placed in alphabetical order in the list of available sounds.

To add a sound to the palette by placing it in the Sounds folder:

1 Open a folder or directory containing the sound file.

2 Drag or copy the sound file into the Sounds folder located in the Adobe LiveMotion folder.

The sound is placed in alphabetical order in the list of available sounds the next time you start Adobe LiveMotion.

To add a sound in the composition to the palette:

1 Choose Timeline > Show Timeline Window or Window > Timeline to display the Timeline window. (For more information, see "Using the Timeline window" on page 97.)

2 Select the sound in the Timeline window. If the sound is attached to a rollover, select the rollover state in which the sound occurs, double-click the rollover in the Timeline window, and then select the sound in the Timeline window.

(For more information on rollovers, see "Creating basic rollovers" on page 125.)

3 Click the New button on the Sounds palette.

4 Enter a name for the sound, and click OK.

The sound is placed in alphabetical order in the list of available sounds.

To replace a sound:

Add a sound, but name it the same as an existing sound.

To delete a sound from the Sounds palette:

1 In the Sounds palette, select the sound you want to delete.

2 Click the Trash button.

Setting and animating sound properties

Once you've attached a sound file to the timeline or a rollover, you can set its properties and animate it.

To set sound properties:

1 In the Timeline window, select the sound you want to work with.

2 In the Properties palette, change the Pan and Volume settings.

- Pan shifts the stereo signal between the left and right channels.
- Volume controls how loudly or softly the sound plays. Higher values result in louder sound.

3 In the Properties palette, select whether the sound will be an event sound or a solo event sound.

- Event Sound downloads the sound completely before playing it, but stores the sound in memory so that it can be reused.
- Solo Event Sound sets the sound as an event sound, but sets a flag to stop playing all other instances of this sound (not other sounds) when the sound is played. This prevents a chorus of beeps, for example, if a button is clicked several times in a row.
- Streaming sound downloads and plays the sound as it occurs in the animation, rather than waiting for the entire sound to download before it begins playing. This option is useful if you have large sound files that you don't want users to wait for before playing.

To animate sound properties:

1 In the Timeline window, expand the sound you want to animate.

2 Expand the Object Attributes heading.

3 Move the current-time marker where you want the sound property (pan or volume) to begin.

4 Click the Pan or Volume stopwatch to activate that sound property.

5 Move the current-time marker to another point in time.

6 In the Properties palette, change the Pan or Volume (whichever property you are animating) settings for the sound.

Animating groups

Grouped objects can be animated in the timeline in much the same way that individual objects can be. The following rules apply:

- With a group, you are limited to animating only properties that can logically be applied to the entire group, such as position and rotation.
- You can animate the individual objects that comprise the group.
- If objects in the group are animated, their individual animations run along with the group animation. For example, letters in a title could rotate individually while the whole title moves around the screen.
- Instead of being listed individually as part of the composition, individual objects within a group are listed as "subheadings" under the grouped object. Clicking the group's triangle displays the individual objects that make up the group, as well as the properties of the grouped object. Therefore, even if you don't want to animate a group, grouping objects is an excellent way to organize the Timeline window.

To group objects in the timeline:

1 Select all objects that you want included in the group.

2 Do one of the following:

- Choose Object > Group.
- Click the Group button in the Timeline window.

To animate a grouped object:

1 Select the grouped object in either the Composition window or in the Timeline window.

By default, grouped objects are named "Group of x objects". As with objects, grouped objects can be renamed.

2 Expand the grouped object to see the Transform and Object Attribute headings for the group, and for each object within the group.

3 Animate any group property, or expand an object heading and animate an object or layer property.

Animating masks

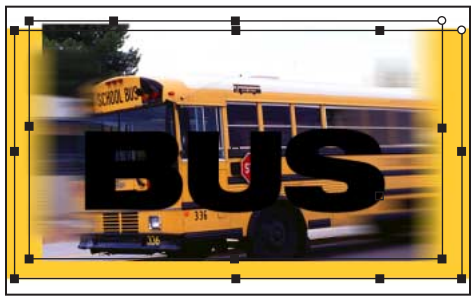
Animating a mask is a simple but dramatic effect. Any object can be used as a mask to reveal any other object. See "Making group masks" on page 55.

The masking object should be a geometric object or a path shape that will export as a vector. For example, applying a double-burst gradient to a mask will cause it to export as a bitmap and will not apply correctly to the underlying object.

Tip: Use the Preview Export Compression command to verify whether the mask will be a vector when exported.

To animate a mask:

1 Select both the masking object *and* the object it will reveal, and then choose Object > Group.

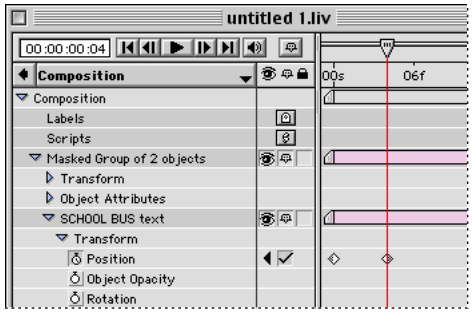


The text will be used as a mask for the underlying bus image.

2 Choose Object > Top Object Is Mask.

3 In the Timeline window, expand the new Timeline object, "Masked group of 2 objects."

4 Expand the mask object, and animate the mask as desired.



Animating the position of the masking object

Working with movie clips

A movie clip is an animation, or interactive object that plays or functions independently of the composition animation. For example, you might want a logo to rotate continuously even after the main animation finishes. You might also want to have an object's animation play only when triggered by a user's action, such as clicking a button. Movie clip animations are also referred to as *nested animations* or *character animations,* and were called *time-independent animations* in LiveMotion 1.0. You create them by making an object or group a movie clip, and then creating an animation within the movie clip's timeline.

Initially, the Timeline window contains only one timeline: the composition timeline. All objects in the composition timeline are animated when the composition animation plays. However, each movie clip object or group has its own timeline. A movie clip is a single object, whereas as movie clip group can contain additional objects. (A regular group does not have its own timeline.)

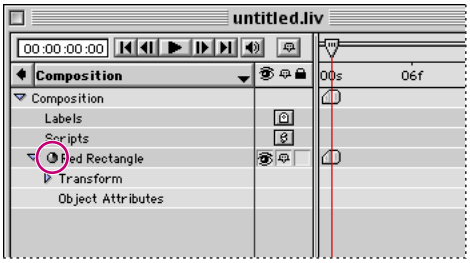
To make an object a movie clip or change a movie clip back to a non-movie clip object:

1 Select the object in the Timeline window.

2 Do one of the following:

- Choose Object > Movie Clip.
- Click the Make Movie Clip button in the Timeline window.

An icon appears next to the object name in the object hierarchy when the object is a movie clip.



Movie clip timeline

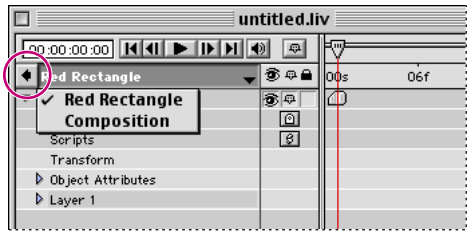
To open a movie clip's timeline:

Double-click the movie clip's name in the Timeline. Other objects in the composition are automatically dimmed.

To close a movie clip's timeline:

Do one of the following:

- To move up one level in the hierarchy, click the Step Out button next to the name of the current timeline.
- To move up any number of levels in the hierarchy, select the name of the current timeline and choose the timeline you want from the pop-up list.

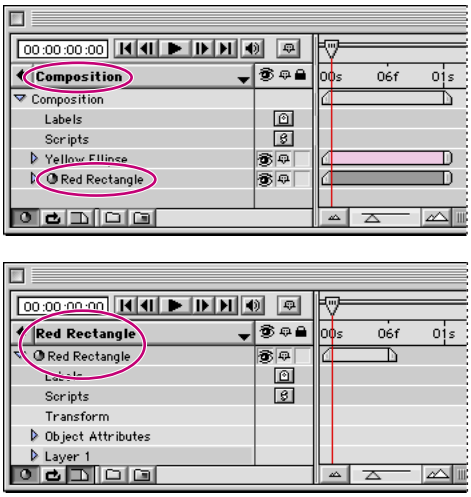


Timeline pop-up menu

Animating movie clips

Movie clips are animated by making an object a movie clip, opening the movie clip's timeline, and then animating properties within the object's timeline. The following rules apply:

- Object Attribute and Layer properties are contained within an object's timeline; Transformation properties are not. This means that position, rotation, scale, and other transformation properties cannot be animated for the movie clip whose timeline you have open.
- You can animate the movie clip's transformation properties from the timeline of the animation that contains the movie clip. For example, you could create a set of movie clip buttons, and have the buttons fly into place as part of the composition animation.
- You can animate any properties (including transformations) of objects contained *within* the movie clip group. For example, if you have a group of text objects (letters) grouped together to form a title, and if you make the group a movie clip, you can animate the position of the group as part of the containing animation (usually the composition), but the group's position cannot be animated independently. The position of individual letters (each of which is an object in the movie clip group) can be animated independently. Thus, the title could slowly move up the screen (as part of the composition animation) while the letters scramble themselves and reform into the title over and over (as a looping movie clip).



Movie clip in the composition's timeline and in its own timeline

To animate a movie clip or movie clip group:

1 Open the timeline of the movie clip or movie clip group.

2 Expand the Object Attributes or Layers properties for the movie clip or group, and animate as desired.

3 If you are working on a movie clip group, expand any objects in the group to access and animate their Transformation, Object Attribute, or Layer properties.

Creating movie clip groups

The Make Movie Clip Group command/button groups one or more selected objects and makes them a movie clip with a single command/button. This is equivalent to choosing the Group command or Group button followed by the Movie Clip command or Movie Clip button.

Note: *You can create a group from a single object. This allows you to make the group movie clip and then animate the Transformation properties of the object within the group. This is the only way to create transformation-based movie clip animations of single objects.*

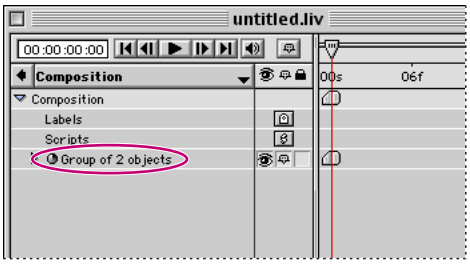
To create a movie clip group:

1 Select the object or objects that you want to include in the movie clip group.

2 Do one of the following:

- Choose Object > Make Movie Clip Group.
- Click the Make Movie Clip button in the Timeline window.

If the object is already grouped (using the Object > Group command or Group button on the Timeline window), you can simply choose Object > Movie Clip or click the Movie Clip button on the Timeline window to make it a movie clip group.



Movie clip group as listed in the Timeline window

Looping animated movie clips and movie clip groups

You can make a movie clip or movie clip group repeat over and over with the Loop command or Loop button.

To make an animation play continuously:

1 Select a movie clip or movie clip group.

2 Do one of the following:

- Choose Timeline >Loop.
- Click the Loop button located at the bottom right of the Timeline window.

Working with labels

The Labels button in the timeline lets you add a label to any point in the animation. Labels are references that scripts point to. For example, you could create a label called "Stop" and place it three seconds into an animation. You could then create a script that looks for that label in order to stop the animation at that point. For information on scripts, see **"About scripts" on page 136**.

When a label is added to the timeline, the label column displays previous and next arrows, which function the same as the ones used for keyframes (moving the current-time marker to the previous or next label in that timeline).

To add a label to an animation:

1 Display the composition timeline or movie clip timeline to which you want to add the label.

2 Move the current-time marker to the point where you want to add the label.

3 Click the Labels button in the Timeline window.

4 Enter the name you want to give the label, and click OK.

5 The label appears in the timeline.

To duplicate a label within a timeline:

1 Select the label you want to duplicate (Shift-click to select additional labels, if desired.)

2 Alt-drag (Windows) or Option-drag (Mac OS) the label to create duplicates within the timeline.

To rename a label:

1 Open the label:

- Double-click the label in the timeline.
- Move the current-time marker to the label and click the Labels button.

2 Enter the new name and click OK.

To delete a label:

1 Select a label (Shift-click to select additional labels).

2 Press Backspace (Windows) or Delete (Mac OS).

To move the current-time marker to the previous or next label:

Click the left arrow or right arrow in the labels column.

To move a label:

Drag the label to a new position in the timeline. (Shift-click to select multiple labels, and then drag to move them as a group, maintaining their relative positions.)

Working with script keyframes

The Scripts button in the keyframe lets you add a script keyframe to any point in the animation. For information on scripts, see **"About scripts" on page 136**.

To add a script keyframe to an animation:

1 Display the composition timeline or movie clip timeline to which you want to add a script keyframe.

2 Move the current-time marker to the point at which you want the script keyframe to occur.

3 Click the Scripts button in the Timeline window to display the Script Editor window.

4 Create the script as described in the *Adobe LiveMotion 2.0 Scripting Guide*.

To duplicate a script keyframe within a timeline:

1 Select the script keyframe you want to duplicate (Shift-click to select additional script keyframes.)

2 Alt-drag (Windows) or Option-drag (Mac OS) the script keyframe to create duplicates within that timeline.

To edit a script keyframe from the timeline:

1 Open the script keyframe:

- Double-click the script keyframe icon ◇ in the timeline.
- Move the current-time marker to the script keyframe and choose Scripts > Script Editor.

2 Edit the script as described in the *Adobe LiveMotion 2.0 Scripting Guide*.

To delete a script keyframe:

Select a script keyframe (Shift-click to select additional script keyframes). Press Backspace (Windows) or Delete (Mac OS).

To move the current-time marker to the previous or next script keyframe:

Click the left arrow ◂ or right arrow ▸ in the script keyframes column.

To move a script keyframe in the timeline:

Drag the script keyframe icon ◇ to its new location on the timeline.

Saving and exporting animations

As you create an animation, you should save it in LiveMotion file format (.liv) so that you can continue working on it. However, to use the animation in a Web page, you must export it to a Web animation format.

To export the animation:

1 Do one of the following:

- If the composition has animations and no interactivity (that is, no rollovers or scripts), you can export it as animated GIF, QuickTime, or SWF.
- If the composition has animation and used the States palette to create animated rollovers, you can export it using AutoLayout or SWF.
- If the composition has animation, interactivity, and static images, it is probably best to export it as SWF.

For information on exporting an animation in each of these formats, see "Specifying the export settings for the file type" on page 154.

Chapter 11: Making Objects Interactive

The best way to make a Web site more compelling is to increase the quality of interaction for the viewer. LiveMotion has many different ways to do this, from ready-made styles, to animated rollover effects, to image maps, and scripting.

About rollovers

A *rollover* is an object that changes in response to interacting with the mouse. For example, a rollover could be a button that changes from red to green as the mouse moves over it, and then makes a sound and changes to an indented shape when clicked.

A *remote rollover* is an object that causes a change elsewhere in the composition in response to the mouse. For instance, moving the mouse pointer down a list of menu items on the left side of a Web page could make pictures of those items appear on the right side of the page.

Although the mouse is the most common way to trigger changes in rollovers, the changes can also be triggered by keyframes in an animation or by scripts.

One of the key features of LiveMotion is its ability to create these interactive Web page elements.

Creating basic rollovers

To make an object into a rollover, you must add other states to it with the States palette. A *state* refers to the type of event that will trigger the change in the object. For example, adding an "over" state triggers a change in the rollover when the mouse is over it.

Here are some things to note about rollovers:

- By default, objects with more than one state are automatically turned into movie clips. Each state of a movie clip exists as a variation on the original (Normal) state. See "Working with movie clips" on page 119.
- Rollover states are triggered by basic mouse actions. The "normal" (default), "over," "down," and "out" states are all rollover states.
- Custom states are states that are not triggered by basic mouse actions. Instead, they are triggered by another object's state, or by a state-change script.
- Once you have created a rollover effect that you like, you may want to save it for future use. As with other types of objects, you can save rollovers to the Library, and their rollover effects will remain intact. (See "Adding and deleting Library objects" on page 94.)

To create a basic rollover:

1 Select the object.

2 If necessary, choose Window > States, or click the States tab to display the palette.

3 Click the New State button at the bottom of the palette.

By default, the over, down, and out states will be assigned to new states. If these rollover states already exist, the new state will be a custom state.

4 Choose the type of state you want from the pop-up menu:

- Normal is the default state for the object.
- Over is triggered when the mouse pointer is over the object.
- Down is triggered when the mouse pointer is over the object and the mouse button is clicked or pressed.
- Out is triggered when the mouse pointer moves off of the object.
- Custom State lets you create your own custom rollover states. These are used for remote rollovers and other effects. If you choose this option, name the state in the dialog box that appears.

Note: *In addition to using the New State button, you can use the Duplicate State button to create a new state based on the currently selected state.*

5 Select the rollover state that you want to modify.

6 Apply changes to the rollover object to change its appearance. For example, you can apply a new texture, color, layer effect, or sound.

Changes you make to the rollover appear in a Changes list beneath the selected state in the States palette.

Note: *You can click the triangle next to the Changes heading to display a list of the changes for that state.*

Editing rollovers

When you modify the appearance of a rollover's state, the changes you make are listed under that state in the States palette. You can expand this change list to see what changes have been applied to the state. You can also modify or delete any of these changes.

The normal state defines the object. Other states are defined by their differences from the normal state. This makes it easy to edit a rollover after you've made it a rollover—any changes you make to the Normal state are added to all the other states as well. On the other hand, any changes you make to another state are applied only to that state.

If you need to make many changes to the Normal state but want to leave the other states as they are, temporarily swap the normal state with one of the other states, edit the state, and swap it back.

To make and delete changes to a rollover state:

1 In the States palette, select the state that contains the change you want to edit.

2 To view a list of changes made to the state, expand the Changes heading for that state.

3 Do one of the following:

- Edit the object.

- To delete a change, select it from the Changes list and click the Delete button at the bottom of the States palette to delete the change.

Attaching sounds to rollovers

To provide auditory as well as visual feedback, you can attach sounds to the different states of a rollover. Sounds can only be applied to states other than the normal state. They are played when that state is activated (for example, a sound that plays when a button is clicked). You can apply a sound from the Sounds palette, or you can attach an external sound file.

Note the following:

- If you apply a sound to a rollover state with the States palette, the sound only appears in the Changes list for that state.
- If you add a sound to the timeline of a multi-state movie clip group, it appears in the timeline of each state, but is only audible in the state they were added to. The Changes list displays whether the sound is audible.

For more information on the Sounds palette and how to use it to attach sounds to rollovers, see "Applying sounds" on page 115. For information on sounds in animations, see "Working with sound" on page 114.

To attach an external sound to a rollover's state:

1 Select the object in the Composition window.

2 Select the state in the States palette.

3 Click the Sound button in the States palette.

4 In the LiveMotion: Add Rollover Sound dialog box, locate and select the desired sound, and click Open.

Attaching behaviors and other scripts to rollovers

You can attach scripts to the different states of a rollover. (These scripts can include the behaviors available in LiveMotion 1.0). The scripts are played when that state is activated. For instance, you can attach a script to load and play a movie when one button is clicked, and another behavior to stop the movie when another button is clicked.

For information on behaviors, see "Working with behaviors" on page 134 and the *Adobe LiveMotion 2.0 Scripting Guide*.

For information on scripts, see "About scripts" on page 136 and the *Adobe LiveMotion 2.0 Scripting Guide*.

To attach a script to a rollover's state:

1 Select the object in the Composition window.

2 Select the state in the States palette.

3 Click the Edit State Script button in the States palette.

4 Use the Script Editor to create script you want, as described in the *Adobe LiveMotion 2.0 Scripting Guide*.

Saving and placing rollover objects

Once you have created a rollover effect that you like, you can save it for future use. As with other types of objects, you can save rollovers to the Library, and their rollover effects will remain intact. (See "Adding and deleting Library objects" on page 94.)

Saving and applying rollover styles

You can save an object that has a layer-based rollover effect applied to it to the Styles palette, if you select the Layer Animation/States checkbox in the New Style dialog box. The rollover effect is saved as part of the style, and can be applied to any object in your composition. If you have created object-based rollovers, a checkbox for that is active as well.

For information on how to save rollovers to, and apply them from the Styles palette, see "Using the Styles palette" on page 90.

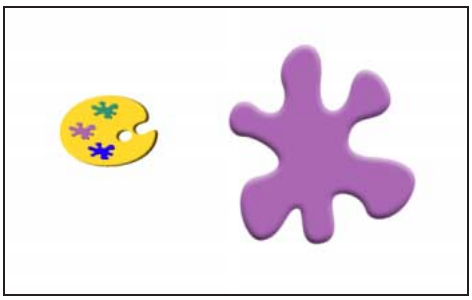
Creating remote rollovers

Remote rollovers are interactions between multiple objects. They are triggered by one object (the trigger object), but affect one or more other objects (the target objects). The trigger object usually has a rollover state (over, down, or out) that is triggered by a user's mouse. The target objects have custom states that are linked to rollover states on the trigger object. For example, moving the mouse cursor over the trigger object (such as a menu button) would switch the object to its over state, which would trigger all the states it's linked to in the target objects (such as names of menu choices).

You must prepare your target object *before* using it in a secondary rollover effect. You do this by creating a custom state for the target object, and then modifying this custom state.

To create a remote rollover:

1 Create an object to act as the trigger for the remote effect, and a second object to act as the target.



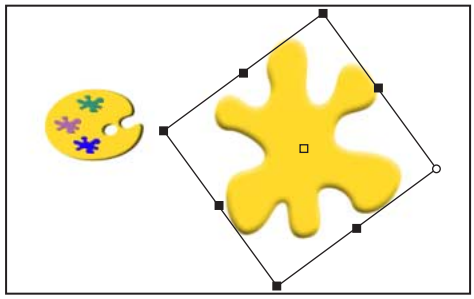
Trigger object and target object

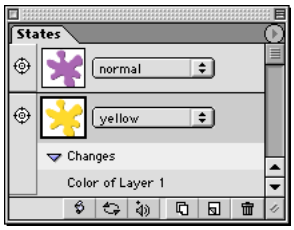
2 Select the target object.

3 Use the States palette to create a custom state for the target object.

This state will represent what the target object will look like when the trigger object is triggered. For instance, you could create a custom state called "yellow" if the target object is to change from purple to yellow when triggered by the trigger object. For more information on custom states see "Creating basic rollovers" on page 125.

4 Modify the target object to how you want it to appear in the new custom state. Using the previous example, you could change the target object to yellow.





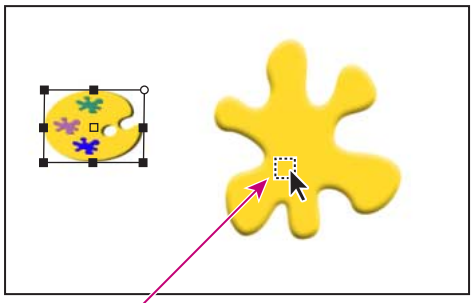
Target object with custom state applied

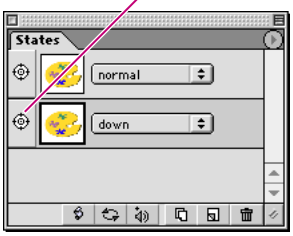
5 Create additional custom states for the target object, if desired.

6 Select the trigger object.

7 Create a new rollover state for the trigger object, such as Over or Down, to react to the user's mouse action. For instance, if you wanted the target object to turn yellow when the mouse clicked on the trigger object, you'd choose Down for the new state of the trigger object.

8 With the new state of the trigger object selected, drag the targeting icon for this state onto the target object. You can tell the target object is selected when its selection border appears.

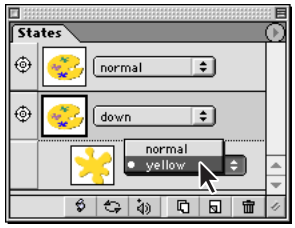




Dragging the target icon onto the target object.

The target object is added to the description of changes to the state of the trigger object.

9 Use the State pop-up menu to select the target object state you want activated by the trigger. Again, if you wanted the target object to change to the state you named "yellow," choose "yellow" from the pop-up menu.



Setting the target object's state

10 To make the target object return to its normal state after being activated by the trigger, select the normal state of the trigger object, drag the target icon onto the target object, and use the State pop-up menu to select the normal state of the target object.

Creating animated rollovers

You can create sophisticated rollover effects by animating the different states of the rollover. For example, you can create a rollover button that pulses with color while the mouse is over it, or that spins when clicked.

You create animated rollovers by creating the animation within the rollover's timeline, rather than within the composition's timeline. Adding a state to an object automatically makes that object a movie clip as well as a rollover, so you can create the animation with the object's timeline. However, to include a transformation (such as changing the rollover's position or rotating it) in an animation, you must make the rollover a movie clip group.

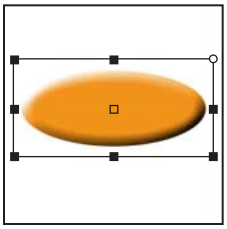
For information on movie clip timelines and movie clip groups, see "Working with movie clips" on page 119.

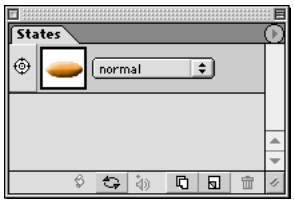
To create a basic animated rollover:

1 Choose Window > Timeline or Timeline > Show Timeline Window to display the Timeline window.

2 Select the object in the Composition window or in the Timeline window.

3 In the States palette, select or create a state that for the animation.



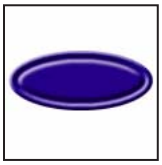


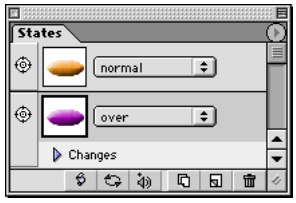
Selecting a state for the animation

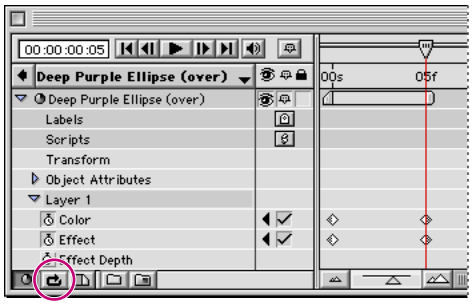
Notice that the Timeline window names both the rollover and its currently selected state.

4 Double-click the rollover's name in the Timeline window to open up its timeline.

5 Create a short animation using the Object Attributes or the Layers properties.







Animating properties in the Timeline window

Note: *If you want the animation to loop continuously while the rollover state is active, click the Loop button in the lower left corner of the Timeline window.*

To create a transformation-based animated rollover:

1 Choose Window > Timeline or Timeline > Show Timeline Window to display the Timeline window.

2 Select the object you want to work with in the Composition or Timeline window.

3 Choose Object > Group.

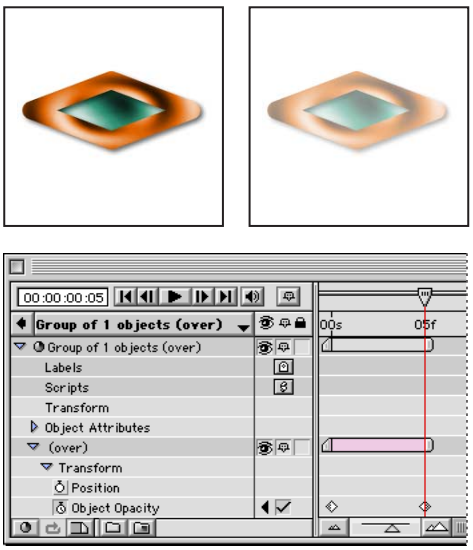
4 In the States palette, select or create a state for the animation.

Notice that the Timeline window names both the object and its currently selected state.

5 Double-click the rollover's name in the Timeline window to open up its timeline.

6 In the Timeline window, expand the rollover to display the Transform, Object Attributes, and Layer properties.

7 Create a short animation by modifying any of these properties, including transformation properties, such as scale, or opacity.



Animating transformation-based properties in the Timeline window

Creating linked images and image maps

Any object you create in LiveMotion, including a rollover, can be linked to a Web page address, called a Uniform Resource Locator (URL), transforming the object into a button that links the user to another Web page. An image map is an image on a Web page that contains multiple links. Areas of an image map, called *hotspots*, link to various URLs.

For example, you could create an image map of an office floor plan. Clicking any office in that image could take users to a Web page about the person in that office.

It's worth noting the following:

- You create image maps in LiveMotion by first attaching links to individual objects. Then, using the Make Page option, you export the objects as a single image. LiveMotion generates the HTML code for the image map. You can then open the HTML page and copy and paste the HTML code into the source of your Web-page design application. (See "Inserting HTML into compositions" on page 161.)
- LiveMotion creates client-side image maps, in which the links are interpreted by the browser itself. Unlike server-side image maps, client-side image maps don't need to contact the server to function, and thus are significantly faster to navigate.
- You can open the resulting pages in Adobe GoLive and edit them there.

To link an object to a URL and create an image map when exporting as autosliced HTML:

1 Select the object to which you want to assign a URL.

2 Choose Window > Web to display the Web palette.

3 Enter a URL in the URL text box.

Entering a URL

4 Repeat steps 1 through 3 for additional objects you want to use as an image map.

5 Select AutoSliced from the Export palette Format menu.

6 Export the composition with Make Page selected <<**TBD>**>.

LiveMotion exports the image files and creates an HTML page with the client-side image map.

Note: *If you overlap objects in creating an image map, the topmost object is the active hotspot in the overlapping area.*

To link a rollover to a URL when exporting as autosliced HTML:

1 Select the rollover to which you want to assign a URL.

2 Choose Window > Web to display the Web palette.

3 Enter a URL in the URL text box.

4 Repeat steps 1 through 3 for additional rollovers to which you want to assign URLs.

5 Select AutoSliced from the Export palette Format menu.

6 Export the composition with Make Page selected.

LiveMotion exports the image files and creates an HTML page with JavaScript rollover actions.

Note: *Avoid applying URLs to overlapping rollovers. This can result in errors when you export the files.*

To link an object or rollover to a URL when exporting as SWF:

1 Select the object or rollover to which you want to assign a URL.

2 Choose Window > Web to display the Web palette.

3 Enter a URL in the URL text box.

4 Repeat steps 1 through 3 for additional objects you want to link to a URL.

5 Select SWF from the Export palette Format menu.

6 Export the composition with Make Page selected if you want to view the object or rollover at the same resolution at which you made it.

LiveMotion exports the SWF file. If Make Page was selected, LiveMotion makes an HTML page with the SWF file imbedded in it.

Note: *If you overlap objects in creating an image map, the topmost object is the active hotspot in the overlapping area.*

Working with behaviors

Behaviors are specific commands that are executed when an animation reaches a certain point in time, when the user interacts with a rollover (such as clicking a button), or when they are called in a script. Behaviors can do anything from playing or stopping an animation, to downloading a movie, to calling a JavaScript function.

Note the following:

- In LiveMotion 2.0, behaviors are created with scripts and are listed in the Script Editor. (In LiveMotion 1.0, behaviors were created in the Behavior palette.) For information on how to create behaviors with scripts, see the *Adobe LiveMotion 2.0 Scripting Guide*.
- For information on attaching behaviors and other scripts to an animation, see"Working with script keyframes" on page 123.
- For information on attaching behaviors and other scripts to a rollover, see "Attaching behaviors and other scripts to rollovers" on page 127.

The following behaviors are available:

Control behaviors. Play and Stop are the simplest behaviors; they simply play or stop a specified animation. For example, a set of Stop behaviors added to the first frame of the composition timeline could stop all independent animations from playing when the main (composition) animation plays. Separate Play behaviors could then be added to timelines or to object states to run individual independent animations as needed.

Navigation behaviors. Behaviors can also be used to add navigational control to an animation or to objects. This navigation can be internal (moving forward or backward in an animation) or external (moving to a different Web site or Web page, perhaps to run additional animations). The internal animation control behaviors add flow control to what would otherwise be a sequential animation. The behaviors that can be used as navigation controls are the Go to Label, Go to Relative Time, and Go to URL behaviors:

- Go to Label moves the animation to a specific labeled behavior event in any timeline.
- Go to Relative Time moves the animation forward or backward a specified number of keyframes.
- Go to URL opens a specified URL in the user's browser window.

Other behaviors. In addition to control and navigation behaviors, LiveMotion also offers several behaviors that perform very specific functions, and one multi-purpose behavior. The special-purpose behaviors are Load Movie, Unload Movie, Wait for Download, Stop All Sounds, and Change State. The multi-purpose behavior is Run JavaScript:

- Load Movie loads and plays a Flash format (.swf) file that can either replace the existing animation or play on top of the existing animation.
- Unload Movie removes an already-loaded .swf file from the screen.
- Wait for Download creates a looping animation that repeats until the specified object has been downloaded. This prevents poor performance for animations that include large objects, or for lengthy and complex animations. This behavior is used to download animation files for playing; it is not used for downloading files in the broader sense of saving files to disk.
- Stop All Sounds stops all sounds in the composition, including event sounds.
- Change State changes the state of a rollover.

- Run JavaScript executes JavaScript code, which you have entered in the Edit Behaviors dialog box.

Chapter 12: Scripting

Scripts enable you to efficiently create or change the behavior of LiveMotion.

About scripts

Scripts are a powerful way to create or change the behavior of a LiveMotion file. A script is a programmatic way of controlling objects in a composition by using loops, mathematical functions, and other conditional logic such as "if/then" statements. Scripting for LiveMotion is object-oriented and uses JavaScript as the programming language.

There are two types of scripts that you can use:

- A player script is a set of instructions embedded in a LiveMotion composition. When the composition is exported as an SWF file, any player scripts in the composition are included. (Player scripts are not included in any other export format.) A player script tells the file and the Macromedia Flash Player what to do. It is interactive and differs from an automation script in that it represents actions that generally cannot be done through LiveMotion's user interface. For example, you could use a player script to create a ping-pong game in which the user's interaction could not be predicted. You could not do this with an automation script, because you couldn't predict the direction of the ball ahead of time and so couldn't create keyframes for every possible position of the ball and the player's paddle.
- Automation scripts and Live Tabs affect the active composition. An automation script lets you do repetitive or complex tasks in an active composition. Although you can do these actions through the LiveMotion user interface, application scripts let you perform numerous instructions automatically and add conditional logic for how the instructions are performed. A Live Tab is simply an automation script that has a user interface attached to it. Live Tabs appear as a palette or dialog box. For example, a Live Tab could be an automation script with a palette that lets you draw a 12-point star shape or perform a batch of commands on selected objects.

Creating scripts

To create a script, you use the Script Editor. For information on creating scripts, see the *LiveMotion 2.0 Scripting Guide*. For information on creating automation scripts and Live Tabs, see **<<Name of document TBD>>**.

Using pre-made automation scripts and Live Tabs

Adobe LiveMotion comes with a set of pre-made automation scripts and Live Tabs that you can use with your LiveMotion compositions.

<<TBD: Whether Dialogs will be included, too.>>

To use a pre-made automation script:

Choose Automation > Scripts, followed by the name of the automation script you want to apply.

To use a Live Tab:

1 Choose Automation > Live Tab, followed by the name of the Live Tab you want to use.

2 Use the options in the Live Tab to modify your composition.

To add an automation script or Live Tab to the menu:

1 Open the folder or directory containing the automation script file or Live Tab file.

2 Drag or copy the file into the Scripts folder or Live Tabs folder located in the Automation folder within the Adobe LiveMotion folder.

3 Do one of the following:

- Choose Automation > Refresh.
- Restart LiveMotion.

The automation script or Live Tab appears in alphabetical order in the Scripts menu or Live Tabs menu as appropriate.

To temporarily load a Live Tab for use:

1 Choose Automation > Load Live Tab.

2 Locate the Live Tab and click Open.

You can use the Live Tab, but it is not added to the Live Tabs menu.

To temporarily load an automation script for use:

1 Choose Automation > Run Automation Script.

2 Locate the automation script and click Open.

You can use the automation script, but it is not added to the Scripts menu.

To reapply the most recent automation script you've used:

Choose Automation > Run Last Automation Script.

Chapter 13: Exporting Compositions

The final step in creating an Adobe LiveMotion composition is saving and exporting it for use on the Web. You can choose from an array of exporting options, which let you export to all common Web formats including the Flash (SWF) file format. You can adjust LiveMotion export options to optimize your compositions and create high-quality output that loads quickly.

About exporting

LiveMotion lets you preview your composition and interactively adjust it to achieve the best results in a Web browser. For example, you can see how changing an export setting affects the image quality and file size. (See "Previewing compositions" on page 133.)

You choose most export options in the Export palette, which gives you a convenient interface for experimenting with the effects of different settings.

Export palette

The Export palette, lets you do the following:

- Export an entire composition or just selected objects.
- Apply export settings at the document level and at the object level.
- Create an HTML page that references your image files.
- Slice a composition and have LiveMotion generate an HTML table that reassembles the parts on a Web page.
- Attach URLs to objects and create image maps, such as a set of buttons in an HTML page.
- Export the background of a composition as an HTML background.

Before exporting a composition, you should save it as a LiveMotion file so that you can reedit the composition if needed (see "Saving compositions" on page 19).

About export formats

To use a LiveMotion composition in a Web page, you export the composition in one of these Web file formats: SWF, JPEG, GIF, PNG-Indexed, PNG-Truecolor, and QuickTime, and Adobe Photoshop. The format you choose depends on the characteristics of the composition.

Macromedia Flash (SWF) Exports animated compositions in the Flash (SWF) file format. The SWF format can be read by most browsers with the Flash player plug-in. Because the SWF format saves animations as vector images, it is a good choice for animations with solid areas of color and sharp object definitions. Vector animations usually have small file sizes as well. For more information on optimizing your compositions, see "Specifying export settings for different file types" on page 140.

Note the following when exporting as Flash:

- Some objects—for example, objects with more than one layer—cannot be exported as vector objects. In these cases, the SWF format will reference a raster file for the objects. This means that when you choose the SWF format for your exporting, you also choose a bitmap compression format such as JPEG, Indexed, and TrueColor or PNG-Indexed.
- The SWF format supports solid-color backgrounds only. Gradients or textures applied to the background of a composition are exported as a backdrop object—a bitmap object that appears behind all the other objects in the composition.
- The SWF format is a streaming format, and will play as soon as a certain amount of the file has downloaded.

AutoLayout When you export an HTML composition in AutoLayout format, LiveMotion slices the composition into its components and makes a separate image file for each object or group of objects in the composition. You can specify a filename and alternate text for each image file.

Consider the following when using AutoLayout format:

- The Make HTML Page option in the Export palette creates an HTML page that references the exported images. With this option selected, LiveMotion creates a table in the HTML page and places the objects in the table cells to approximate the composition, preserving its layout.
- Any background color or texture you have applied to the HTML composition is preserved in the individual images. The background is also exported as an image file.
- For the GIF, JPEG, and PNG-Indexed or PNG-Truecolor formats used with the AutoLayout export option, the topmost object in a slice determines the slice's composition settings.
- LiveMotion determines how to slice an HTML composition by finding any objects that are grouped, or any objects that touch or overlap (including their bounding boxes). and placing them in the same image file. The entire overlapped objects are exported.

Selection and exported object

- AutoLayout places images in the HTML file, starting from the top left of the composition in order to the bottom right.

Live Tab This format lets you save a composition as a Live Tab. You can then use the Load Live Tab command to add file to the list of available Live Tabs. For information on how to create Live Tabs, see **<<TBD: Name of document not defined yet>>** .

GIF The GIF format is a good choice for compressing solid areas of color while preserving sharp detail, such as that in line art, logos, or illustrations with type. The GIF format is also good for rendering small-scale animations, such as spinning or pulsing buttons.

Note the following when exporting as GIF:

- GIF supports 8-bit indexed color for a display of up to 256 colors.
- You can choose a selective indexed color table that contains the colors most commonly used in the image. You can also choose Web to ensure that your colors are Web-safe.
- The GIF format uses a *lossless* compression method in which no data is discarded during compression. However, since GIF images have a maximum of 256 colors and LiveMotion can use millions of colors, an image in the GIF format may be degraded.
- You can choose to create an *interlaced* GIF image, in which a low-resolution version of the image appears in a Web browser while the full image is downloading.

Animated GIF This format is the same as GIF, but rather than exporting only the current frame in a composition, it exports all of the frames as an animated sequence.

You can select any of the regular frame rates, or use keyframes only, which animates only the keyframes in the Timeline without interpolation. This creates animations in which the image changes at specific points, rather than smooth transitions between keyframes.

QuickTime Video This is Apple's multimedia software format. You can use it for movies as well as for synchronized graphics, sound, video, text, and music on the Web. QuickTime Video is free as either a download over the Web from Apple's site (www.apple.com), or as a pre-installed plug-in on your computer. It is supported by Windows and Macintosh operating systems. Note the following:

- Movies can be delivered by either progressive download via HTTP at a pre-determined level of quality or by "True Streaming," which needs a dedicated server to deliver output in real time.
- Only top-level linear animation in the Composition can export to QuickTime.
- Animation contained in movie clips does not export (only the first frame of the movie clip appear in the exported movie)

JPEG Designed for use with raster images, and other continuous-tone graphics. JPEG uses 24-bit color, and preserves the broad range and subtle variations in brightness and hue found in photographs.

Note the following when exporting as JPEG:

- The JPEG format uses a *lossy* compression method, in which data is discarded during compression, which may degrade sharp detail in some images.
- You can use the Reduce Chroma option to create a slightly smaller JPEG file by reducing the color information in the exported image. Reduce Chroma discards every other pixel in the chroma information without affecting the luminance, and typically without visibly changing the image quality.

- For faster image loading, you can create a progressive JPEG. The image downloads *progressively*, so viewers can see a low-resolution version of the image before the final image downloads completely.

Note: *Data is discarded from a JPEG image each time you export a file to JPEG format. You should always save JPEG files from the original composition if possible, rather than re-importing and exporting the image multiple times.*

Photoshop Exports a flattened image to the Adobe Photoshop format. Photoshop, Adobe ImageReady™, and Adobe Illustrator can open your LiveMotion composition.

PNG-Indexed Also known as PNG-8, PNG-Indexed color supports 8-bit indexed color. The PNG-Indexed format uses a lossless compression method. PNG-Indexed compresses solid areas of color while preserving sharp detail, such as that in line art, logos, or illustrations with type.

LiveMotion uses the composition's alpha channel or active matte information to export PNG-Indexed files with a single level of transparency.

PNG-Indexed is supported directly by Internet Explorer 4.0 and later. Internet Explorer before 4.0, and Netscape Navigator 2.0 or later need a plug-in.

PNG-Truecolor Also called PNG-24, PNG-Truecolor supports 24-bit color. PNG-Truecolor uses a lossless compression method. PNG-Truecolor preserves the broad color and tonal range of photographic images.

Small bitmaps compress very efficiently using Truecolor; large bitmaps (over 100 x 100 pixels) compress best using JPEG.

LiveMotion exports PNG-Truecolor files with a single level of transparency.

PNG-Truecolor is supported directly by Internet Explorer 4.0 and later. Internet Explorer before 4.0, and Netscape Navigator 2.0 or later need a plug-in.

A note about sounds When selecting compression settings for sound, make sure a sound object is selected. Selecting sound settings while any other type of object is selected will not apply the settings to the composition's sounds.

Optimizing your compositions

To create animation files that load quickly and play smoothly, you need to consider the type of art to include in an animation and what the export format will be. You should also consider the visual effects you want and how you will use sound.

Frame rate, properties, and size. It's important to be aware of the relationship between frame rate, animated properties, and file size. When you export a composition in SWF format, the file stores all changing values for an object on every frame on which a property changes. Although this is only about 6 bytes per frame for each changing property, the total can become large, especially at higher frame rates.

Suppose you have an object that changes position during a one-second long animation set to 10 frames per second (fps). The tweening would require approximately 60 bytes (6 bytes times 10 frames) when you exported the animation. If you tripled the frame rate to 30fps for smoother animation, three times as much tweening information would be created—about 180 bytes—when you exported the animation. Animating a second property, such as object opacity, would double that size to 360 bytes. Animating more properties, adding more keyframes, and applying changes to multiple objects would increase the exported file size proportionally.

It's important, therefore, to consider the costs of animating even Flash-native properties. Fortunately, you can vary your frame rate without adjusting the duration of your animations, letting you find the balance between a smooth animation and a small file size.

Regular groups vs. movie clip groups. Macromedia Flash (the authoring tool and SWF format) doesn't have the LiveMotion concept of groups as containers that can be animated and transformed like other objects. Therefore, LiveMotion breaks apart any groups in your animations when it exports them, writing transformation information for each item in the group. One exception to this is movie clip groups, which LiveMotion exports as Macromedia Flash movie clips. **<< CAN WE REFER TO FLASH AND THEIR MOVIE CLIPS?>>** By giving each member of a group only the transformations unique to it, and by applying the shared transformations at the time-independent group level, you can avoid significantly increasing the file size. The more frames, objects, and attributes you use, the more the file-size-savings increases.

You can greatly reduce the file size by duplicating groups and making them movie clip groups. When exporting such groups, LiveMotion wraps their contents in a Macromedia Flash movie clip. If the contents and transformations are identical, the Flash player recognizes that they're the same and re-uses the contents.

Using movie clip groups is recommended if you're making a linear animation. Remember, though, that if you stop the main timeline, time-independent groups will continue to play unless you add a behavior that targets and stops them.

Pre-transform vs. post-transform. Pre-transforms affect the artwork itself, whereas post-transforms are applied just to particular instances of the artwork. This has implications for how LiveMotion optimizes SWF files by storing single objects and re-using them in the SWF, as well as for how it stores each object.

When you first import a piece of artwork and scale it, you're applying a pre-transform; that is, you're changing the native size of that artwork and therefore (if it exports as a bitmap) the number of pixels it contains. However, when you set a stopwatch for the scale attribute in an animation, you begin to apply post-transforms; that is, you're just scaling that particular copy of the artwork. It's a good idea, therefore, to find the point at which your artwork appears the largest, then use the Make Actual Size command. This makes the native artwork only as big as it needs to be in that situation, and at other points it will be scaled down and the effects of the scaling won't be so visible. The actual size determines the size required in the SWF.

As another example, suppose you used the 3D palette to apply a 5-pixel bevel to an object. If you pre-transformed the object (such as by enlarging it), the bevel would remain 5 pixels wide because you're changing the source artwork. But if you applied a post-transform to the object (such as enlarging it over several seconds in an animation), the bevel would increase in size proportionally with the rest of the object because you're transforming that copy of the object, not the source object. However, again, you could redefine its native size with the Make Actual Size command.

Understanding pre- and post-transforms is essential when you want to duplicate animations without greatly increasing the size of your exported SWF file. You can reduce its size by wrapping animated elements in a movie clip group, then applying transformations at the group level. Be aware that if you apply pre-transforms at the group level to a duplicate movie clip group, that group will export separately from the original (the artwork it contains are stored once, but the animations applied to it are exported twice). Instead, you can make an alias of the movie clip group, and then apply a post-transform such as Scale to it later. This will export a singe movie clip group and a reference to it for the alias.

Modify Transform properties. You can create more efficient animations by modifying Transform properties and avoiding Layer and Object Attribute properties. For example, using the Transform Scale property to change an object's width results in a smaller file size than using the Width property in the Layer palette. Transform attributes are located on the Transform palette, Object Opacity on the Opacity palette, as the Horizontal Flip and Vertical Flip commands, and within an object's Transform properties in the composition's Timeline window.

Aliases. Aliases make it easy to edit multiple objects simultaneously in LiveMotion and export them as single entities to Flash (that is, as an animated time-independent group with several aliases export to SWF just once). For example, when you rotate or skew an alias of an object, you're usually applying a post-transform (that is, you're changing just the copy you've selected). But when you scale it, by default you're applying a pre-transform (that's why each copy scales). You can apply post-transform scaling to an alias by first setting a scale stopwatch on the timeline, then scaling the alias. Color and object properties (shape type, points, etc.) are pre-transforms.

In this example, making an alias to the original time-independent group animation, then setting a stopwatch and scaling the time-independent group ensures that LiveMotion exports just one copy and uses it twice in the SWF.

Imported artwork versus native versions. Certain kinds of imported artwork are difficult to export efficiently. In particular, Illustrator files can contain objects that are rasterized when exported to SWF and imported gradients can be particularly difficult. So while you may be able to import them, you obtain the best results by recreating native versions in LiveMotion and deleting the imported originals. The LiveMotion versions export natively to SWF and help prevent your editing environment from slowing down.

Animating color versus animation tint. If you're familiar with Macromedia Flash, you might expect LiveMotion to vary the shade of objects in the same way that Macromedia Flash does. **<<Can we mention Macromedia Flash?>>** But instead of varying tint (a native transformation), LiveMotion varies the actual color of the object or layer. While this approach can yield more accurate results and allows you to apply color changes on just certain layers (Macromedia Flash tint applies the effect to the entire object), it requires LiveMotion to generate new artwork on every frame the color changes. As a result, you should be judicious in animating color transformations, especially on artwork that will generate a bitmap when exported to SWF.

If file size is a concern, consider making your shape a mask and then animate the color of a rectangle beneath the mask. A new rectangle will be created on every frame, but it will be about 35 bytes (almost definitely smaller than a new copy of your shape). However, you can't use vector artwork as a mask if you import it. But you can usually use the shape as a mask if you paste it instead. Converting the shape to a single color without a stroke before pasting may help as well.

Clipping and re-using sounds. LiveMotion clips off extra sound data you don't need. For instance, suppose you want only the first second's worth of a three-second-long sound, so you slide the end point of the sound's lifetime back to 1 second. LiveMotion will export only 1 second's worth of the sound. However, if you use the sound again later, but this time you use all three seconds, LiveMotion stores a second copy of the sound, meaning you now have a total of four seconds' worth of audio data in your SWF.

To avoid the extra file size, you can place your sounds in time-independent groups, then set the end point of the time-independent groups so that the sound is clipped where you want, but the entire sound is stored just once. Note, however, that because the Flash player doesn't synchronize event sounds and animation, setting the end points in this way might not clip the sounds exactly where you specified. Because this depends heavily on processor speed, frame rate, and other factors, you should test your SWF on various computers.

Per-object settings and performance. Use per-object export settings wisely. Per-object settings let you fine-tune an exported SWF file by letting you specify the best format for objects that will be converted to bitmaps when exported, reduce colors, experiment with different levels of quality, and so on to find the best balance between output quality and file size. Unfortunately, LiveMotion has to store and track each setting, which can increase memory use and decrease performance. It's a good idea, therefore, to pick the setting that works best for most objects and store it at the document setting (this is what you're doing when you specify settings without selecting Object in the Export palette and making a new setting). Also, use Preview Export Compression to check whether an object will become a bitmap when exported. If it doesn't, there's no reason to add a per-object setting to it.

Multi-layer objects. Objects with multiple layers, even if those layers are simple shapes, become bitmaps when exported to SWF. If you're using basic shapes in object layers, consider using multiple objects on the timeline so that they can export as vectors. You can still group the objects and animate characteristics at the group level so that you can edit them as a single object. Note that this doesn't mean you should never use multi-layer objects. Sometimes those objects can export and animate more efficiently than a large group of single-layer objects that would be required to achieve the same appearance.

Object layer opacity. Try to avoid animating object layer opacity and animate object opacity instead. Object layer opacity controls how each layer of a multi-layer object blends with other layers, whereas object opacity applies to an entire object. LiveMotion has to generate new artwork when you animate the object layer opacity. When you change object opacity, however, it's handled natively in the Flash player.

You can change the object layer opacity to make artwork appear and disappear in different custom states (this is useful for creating remote rollovers, for example). However, it's more efficient to group the artwork and create the custom states at the group level, since this lets you vary the object opacity of the grouped artwork, and LiveMotion would export just a single copy. As an alternative to grouping, you could turn off all object layers in rollover states where you want the artwork hidden. When all layers are hidden, LiveMotion export just a blank placeholder.

Animating text size. Whenever possible, don't animate the text size., since it makes LiveMotion generate new font information on every frame. Instead, animate the scale of a text object, instead.

Animating text tracking and leading. Animating the tracking and leading of a text object lets you keep a single, editable word or phrase on the timeline while distributing its characters vertically and horizontally. But when LiveMotion exports such an animation, it generates a new text object on every frame, resulting in a SWF file that is much larger and plays back more slowly than if you had animated each letter separately. In this case, consider using the Break Apart Text command and animating the individual letters. You can still group the animated letters to get the effect of working with a single text object.

Gradients. Because Flash can't animate gradient characteristics natively, LiveMotion must generate a new gradient on each frame where the gradient changes. You can achieve a similar effect by placing a gradient under a mask, then spinning or stretching it **<<THE GRADIENT OR THE MASK?>>** as necessary. In addition, applying a double-burst gradient to an object will convert that object to a bitmap when exported.

DIstortion lenses. Distortion lens can provide very interesting effects, but animating them can quickly increase the file size of your exported SWF. Using a lower frame rate will cause LiveMotion to generate fewer bitmaps, and using a very low per-object export setting with a distortion lens can reduce the file size without compromising the visual quality (after all, each image will be visible for only a fraction of a second). You can also use hold keyframes on the distortion characteristics in conjunction with regular keyframes on opacity keyframes to fade between versions of the lens. In this case, LiveMotion only generates bitmaps where the distortion characteristics change.

Previewing compositions

LiveMotion provides a variety of features that enable you to preview how your finished composition will look:

- The Preview Export Compression command displays an approximation of how your composition will look given the current export settings and file size. This lets you edit the composition or change compression settings to further reduce the file size and preview the result for image quality. All commands and tools function in Preview Export Compression mode. For information on changing export settings, see "Understanding the export report" on page 136.

The two sections along the bottom left of the active composition window display the composition's size and the size of any selected object. If you have selected individual objects, an icon indicates whether they will be exported as bitmap objects, vector objects, or a combination of both. Selected objects in the composition display a red border when Preview Export Compression is on. If the AutoSlice or AutoLayout option is selected, the size is the sum of all of the files that will be exported.

Note: Performance slows when you work in Active Preview mode, so it's a good idea to use this mode only for proofing your work.

- There are several ways to preview animations. For general information, see "Previewing animations" on page 100. For information on using Preview Mode to preview an animation, see "Previewing using Preview mode or a Web browser" on page 101.
- The Preview In commands let you preview the composition in a Web browser. Previewing your work in a Web browser is the best way to see how your composition will actually appear in that browser. In addition, when you preview in a Web browser, LiveMotion provides an export report that gives additional details about your composition, enabling you to see how the composition is exporting, how large each object in an animation is at each frame, and the like. (See "Understanding the export report" on page 136.)
- Real-Time Preview skips frames if necessary to preview animations at a constant speed. For example, at the beginning of an animation, only one object might be moving, whereas later in the animation numerous objects might be moving. A preview of the animation might slow down when it encounters the more complex part of the animation. Real-Time Preview would maintain the speed of the preview by skipping some of the frames of the animation.
- Simulate Slow Download simulates a slower connection. For example, suppose you were creating a pre-loader animation designed to run while the main animation downloads from a Web site. Because both of these animations would typically on your system, LiveMotion could download the main animation so quickly in Preview mode that you would not have time to see how the pre-loader would run. Simulate Slow Download would simulate the download time needed for the main animation, allowing the pre-loader to run.
- AutoSlice Area shows where LiveMotion will divide objects into separate pieces if you export the composition as AutoSlice. (See "Using batch replace HTML" on page 144.)
- Object Edges lets you see how objects look with or without their selection handles and borders. You can work with objects in this mode as well as simply view them.
- Objects Off Canvas lets you see outlines of objects that are past the edge of the canvas (the viewable/exportable area). This is useful, for example, when you are animating an object that begins out of view.
- Preview Mac Gamma (Windows) and Preview Windows Gamma (Mac OS) lets you see how a composition will look when viewed on a different platform. The gamma is a measure of the brightness of midtone values in graphics. On Windows systems, the gamma is 2.2, whereas on Mac OS the gamma is 1.8. The result is that the same image appears slightly darker on a Windows system than on a Mac OS system.

To preview the image quality and the current frame size based on the current Export palette settings:

1 Make the Composition window active.

2 Choose View > Preview Export Compression.

3 In the status bar (Windows) or the lower left of the Composition window (Mac OS), view the object and current frame size that results from changing Export palette settings.

4 If needed, change Export palette settings, or edit your composition until you reach an optimal balance between file size and image quality.

5 Choose View > Preview Export Compression to turn off Preview Export Compression.

To add a Web browser to the Preview In menu:

1 Create a shortcut or an alias for the Web browser.

2 Drag the icon for the shortcut or alias into the Helpers/Preview In folder within the LiveMotion program folder.

3 Restart LiveMotion.

To preview a composition in a Web browser:

1 Choose File > Preview In and choose a Web browser from the list. LiveMotion launches the application and displays the composition in the browser window.

Note: *If Entire Composition or Trimmed Composition is selected in the Composition Settings dialog box, Make HTML must be selected to preview the composition in a Web browser.*

To maintain an animation's speed while in Preview mode:

1 Click the Preview Mode button at the bottom of the toolbox or choose View > Preview Mode.

2 Choose View > Real-Time Preview.

3 Click the Edit Mode button to exit the Preview mode.

To preview how an animation will run over a slow internet connection:

Choose View > Simulate Slow Download.

To preview how LiveMotion will divide objects if you export as AutoSlice:

Choose View > AutoSlice Area.

To view or hide the selection handles and borders of an object:

Choose View > Object Edges.

To view or hide the selection handles and borders of an object that is beyond the canvas:

Choose View > Objects Off Canvas.

To preview how colors will look on a different platform:

Choose one of the following, depending on which platform you are using:

- For Windows, choose View > Mac Gamma to preview how colors will look in Mac OS.

- For Mac OS, choose View > Windows Gamma to preview how colors will look in Windows.

Understanding the export report

The Export palette lets you create an export report that appears when you preview a composition in a Web browser using the Preview In command. This report provides details on the composition, including estimated download times, number of keyframes, file size, and the like.

The following information is provided in the export report:

- Overview displays the file size, the number of frames in the SWF, and the number of frames per second (fps).
- Total Download Times displays an estimation of how long it takes to download the file on 14.4K, 28.8K, and 56K modems
- Download Streaming displays a table that shows the following for each frame (called a time code): the frame size in bytes and the number of preloaded frames for 14.4K, 28.8K, and 56K modems. Preloaded frames refer to how many frames stream in per frame. A negative number indicates how many frames are required for that particular frame to be loaded.
- Resources displays the time code and whatever objects (bitmap or vector) are present on each frame. This information includes the file format, file quality settings, opacity settings, file size, references (instances), and names.

To view the export report:

1 When you specify your export settings, click the box next to the Create HTML Export Report button <<**ICON**>> on the Export palette.

2 Choose File > Preview In, followed by the name of a Web browser.

3 Click the link "Export Report" on the preview of your composition that appears in the Web browser.

Exporting compositions and objects

When you export entire compositions or selected objects, per-object settings are saved with the document, as well as document export settings. To export a composition or object, you choose an export format, set options for that format, and then choose an export command.

Setting basic export options

The Export palette contains the export options you need to set for your compositions. Each file format has specific choices, but the basic steps for using the Export palette are the same whatever format you choose. For information on specific format options, see "Specifying export settings for different file types" on page 140.

To use the Export palette:

1 Turn on the Preview Export Compression feature so that you can see how your export choices will affect file size:

- Choose View > Preview Export Compression.
- Click the Preview Export Compression button <<**ICON**>> in the Export palette.

2 Display the Export palette:

- Choose Window > Export.
- Choose File > Export Settings.

3 Choose an export format from the menu at the top of the Export palette. (For a description of the various formats, see "About export formats" on page 127.)

4 If you are exporting in Macromedia Flash (SWF) format, you can specify a target window or frame for a page that a sliced image links to. If you are exporting in AutoLayout format, you can specify a filename and alternate text in addition to a target for a sliced image. See "Specifying a filename, alternate text, and a target for a sliced image" on page 143.

5 Select general export options (depending on the format you choose, not all options are available):

- Click the box next to the Make HTML Page button <<**ICON**>> to embed the exported file in an HTML page. (If you export in AutoLayout format, the HTML page contains references to the exported images.)
- Click the box next to the Export HTML Report button <<**ICON**>> to create an export report detailing the elements in the file. (See "Understanding the export report" on page 136.)
- Click the box next to the Trim Composition on Export button <<**ICON**>> to export the smallest area enclosing all of the objects in the composition. Leave this option unselected to export the entire composition (that is, all of the canvas, including any areas that don't have objects on them).

6 Click the Document Export Settings button <<**ICON**>> at the bottom of the Export palette to set export options for the overall document.

7 Choose document-level options for the selected export format as described in "Specifying export settings for different file types" on page 140.

8 If you are exporting in Macromedia Flash (SWF) format or AutoLayout format, you can specify different export settings for one or more individual objects in the composition. See "Specifying Per-Object Settings" on page 142.

9 Export the file:

- Choose File > Export to export the entire composition as a single or multiple files.
- Choose File > Export As to change the name, location, or format of an exported file for a previously exported composition.
- Choose File > Export Selection to export only the currently selected objects. LiveMotion exports the smallest rectangle that completely encloses the bounding boxes of the selected objects.

10 Name the file, select a location for it, and click Save.

Note: *You will overwrite a previously exported file the next time you choose File > Export. Choose Export As and type a new filename to export multiple versions of a file.*

Setting specific export options for different export formats

Once you've decided on an export format as described in "About export formats" on page 127 and have chosen the high-level export options as described in "Setting basic export options" on page 136, you can specify document-level settings for that particular export format.

It's a good idea to watch the Composition window and the file size indicators to see how your choices affect the size and visual quality of your composition.

To specify export options for Flash (SWF) format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 To specify a target window or frame for a page that an image links to, see "Specifying a filename, alternate text, and a target for a sliced image" on page 143.

3 Verify that you chose Macromedia Flash (SWF) from the format menu at the top of the Format palette.

4 Click the image format tab <<**ICON**>> and select an image format option:

- JPEG if you are exporting JPEG images, specify the image quality by dragging the Quality slider or entering a value (0–100) in the text box. Specify the Opacity Resolution by dragging the Opacity Resolution slider or entering a value (0–8) in the text box. Higher values increase the quality of colored areas and the file size; smaller values decrease the file size but can cause banding, an unintended variation in the opacity of colored areas.
- Indexed if you are exporting Indexed images, select compression settings as described for exporting a file in PNG-Indexed format.
- Truecolor if you are exporting Truecolor images, specify the color resolution by dragging the Color Resolution slider or entering a value (1–8) in the text box. Higher values increase the available colors for the palettes and the file size. A value of 8 will make millions of colors available; a value of 1 will create a black-and-white palette. Specify the Opacity Resolution by dragging the Opacity Resolution slider or entering a value (0–8) in the text box. Higher values increase the quality of colored areas and the file size; smaller values decrease the file size but can cause banding, an unintended variation in the opacity of colored areas.

5 Click the Rasterize button <<**ICON**>> to export selected vector objects as bitmaps.

6 Click the sound tab <<**ICON**>> and set the rate for sounds in the MP3 menu. If you're unsure what bit rate to use, choose Auto bit rate to let LiveMotion use it's built-in algorithm to choose the rate it considers best. In this case, it will compress some sounds more than other to retain the sound quality while minimizing the file size.

7 Unless you need stereo output, click the Convert Stereo Sounds to Mono button , which significantly decreases your file size.

8 Click the text tab <<**ICON**>> and specify which fonts you want to embed in the exported file. This is useful if you want to make sure the fonts you used in your composition appear in on users' Web browsers:

- From the Embed Fonts menu, choose whether you want to embed no fonts (None), the entire font set (Full Set), or just the ones you mark (Partial Set).

- Click the buttons representing the types of characters you want to embed: Embed All Uppercase Fonts <<**ICON**>>, Embed All Lowercase Fonts <<**ICON**>>, Embed All Numbers <<**ICON**>>, and Embed All Punctuation <<**ICON**>>.
- In the Extra text box, enter any specific characters you want to embed from the font.

Note: *If the composition contains text-entry fields and you embed partial sets of fonts, users can enter only those characters in the fields.*

9 Click the animation tab <<**ICON**>>. Then specify a frame rate and whether you want to attach or reference movie clips and sounds:

- To export the composition at a different frame rate than you worked with in LiveMotion, choose a frame rate from the Frame Rate menu.
- If you are using scripting, you can attach movie clips and sounds with the remaining option in the animation tab. See the *Adobe LiveMotion 2.0 Scripting Guide* for details.

10 To choose separate export options for individual objects within the composition, see "Specifying Per-Object Settings" on page 142.

To specify export options for AutoLayout format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 To specify filenames, alternate text, and targets for the sliced images, see "Specifying a filename, alternate text, and a target for a sliced image" on page 143.

3 To preview how LiveMotion will slice the objects, choose View > Autoslice Area.

4 Verify that you chose AutoLayout from the format menu at the top of the Export palette.

5 Choose a file format for the objects in the composition.

6 Choose options, depending on that format. For a description of the options, see the instructions for exporting a file in that format.

7 Enter the name of the folder in which you want to save the images. If you leave this blank, LiveMotion places the exported image files in a folder called "images" located in the same folder as the HTML file. You can specify a subfolder by placing a "/" in the path name. For instance, entering "Myfolder/Artwork" creates the folder "Myfolder" and the subfolder "Artwork," which in turn contains the images.

8 To choose separate export options for individual objects within the composition, see "Specifying Per-Object Settings" on page 142.

Note: *If an HTML composition is not slicing as expected, make sure that the bounding boxes of objects you want on different slices are not touching.*

To specify export options for Live Tab format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose Live Tab from the format menu at the top of the Export palette.

To specify export options for QuickTime Video format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose QuickTime Video from the format menu at the top of the Export palette.

3 Click the Video Options button <<**ICON**>> and select any of these options:

- From the Compressor area, select the video format (codec) you want. Some of these have further options, accessible by clicking the Options button.
- From the Compressor area, select the number of colors to include.
- Enter the quality, frame rate, key frame rate, and data limit rate for the exported video.

The settings and available codecs are determined by QuickTime. For detailed information about the QuickTime options, open the Apple QuickTime application and choose Help > On-line QuickTime Player Help.

4 Click the Audio Options button <<**ICON**>> and select any of these options:

- From the Compressor area, select the audio format you want. Some of these have further options, accessible by clicking the Options button.
- Choose a sampling rate.
- Select whether to save it in 8-bit or 16-bit format (which provides higher quality, but increases the file size).
- Select whether to save it in mono or stereo. Saving in stereo increases the file size.

The settings are determined by QuickTime. For detailed information about the QuickTime options, open the Apple QuickTime application and choose Help > On-line QuickTime Player Help.

To specify export options for GIF, animated GIF or PNG-Indexed format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose GIF, Animated GIF, or PNG-Indexed from the format pop-up menu at the top of the Export palette.

3 Specify the number of colors for the exported image by dragging the Colors slider or entering a value (2–256) in the text box. Shift-drag constrains the value to common color depths.

4 Select a color palette to set how colors are displayed in an operating system or a Web browser:

- Perceptual creates a custom palette by giving priority to colors for which the human eye has greater sensitivity. This palette usually produces images with the greatest color integrity.
- Selective creates a custom palette by sampling colors from the spectrum appearing most often in the image. For example, an image with only the colors green and blue produces a palette made primarily of greens and blues. Most images concentrate colors in particular areas of the spectrum.
- Web Adaptive creates a custom palette by shifting colors toward Web-safe colors, and preserves Web-safe colors on export.
- Web uses the standard 216-color palette common to the Windows and Mac OS Web-safe color palettes.

- Mac OS uses the default 8-bit color palette of the Mac OS system, which is based on a uniform sampling of RGB colors.
- Windows uses the default 8-bit color palette of the Windows system, which is based on a uniform sampling of RGB colors.

5 Click the display options you want:

- Click the Include Transparency Information button to export the image with the object's alpha channel or active matte. (See "Using alpha channels" on page 54.)
- Click the Dither button to mix the available colors to simulate unavailable colors. Dithering often improves the gradation after you have reduced the number of colors—but increases the exported image's file size. You can see dithering with Preview Export Compression on.
- Click the Compress for Progressive Downloads button to let browsers display a lower resolution image while the final image loads.

6 If you are exporting an animated GIF, choose a frame rate from the Frame Rate menu. Then choose how many times, if at all, you want the animation to loop, or repeat.

To specify export options for JPEG format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose JPEG from the format menu at the top of the Export palette.

3 Specify the quality for the exported image by dragging the Quality slider or by entering a value (0–100) in the text box. Higher values increase the quality and the file size of the exported image.

4 Choose any of the following:

- Select Progressive to export the images as a progressive JPEG.
- Select Reduce Chroma to create a slightly smaller JPEG file. If the image quality visibly degrades, increase the Quality setting.
- Select Optimized to create a custom compression table for the image. Optimized JPEGs have a slightly smaller file size and a longer compression time.

To specify export options for Photoshop format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose Photoshop from the format menu at the top of the Export palette.

To specify export options for PNG-Truecolor format:

1 Choose the general options for exporting as described in "Setting basic export options" on page 136.

2 Verify that you chose PNG-Truecolor from the format menu at the top of the Format palette.

3 Click the Transparency button to export the image with the object's alpha channel or active matte. (See "Using alpha channels" on page 54.)

4 Click the Compress for Progressive Downloads button to export the image at a lower resolution and increase the image quality as the image loads.

Specifying Per-Object Settings

If you are exporting in SWF or AutoLayout format, the Export palette lets you set export options for individual selected objects within the composition. Applying separate optimization settings for each object lets you determine the export format, quality, and size of individual objects or groups of objects.

For example, if you are exporting in SWF format and the composition consists of several photographs and two solid-color graphics, you might save the document in JPEG and then select the solid-color graphics and save them as Indexed.

For another example, suppose the document your are exporting in AutoLayout format contains several smaller images that can be lower quality, but one large image that needs to be higher quality. In this case, you could first specify the document-level settings to be JPEG with a lower quality setting. You could then select the large image, specify that its setting be JPEG with a higher quality setting.

Note the following when specify per-object export settings:

- You can only apply per-object settings to compositions being exported in SWF or AutoLayout format.
- Settings for an individual object are saved even if the document-level export settings change.
- The per-object options on the Export palette change depending on whether you are exporting the document in SWF format or AutoLayout format.
- You can only choose per-object settings within the overall document-level format you chose. For example, you can't set the document to export as SWF and an object to export as AutoLayout.
- You can select and specify per-object settings for multiple objects at once.
- You cannot specify per-object settings for groups or movie clip groups. **<<TBD: Will Move Clip Groups be able to have per-object settings?>>**

To specify or modify an export setting for an individual object:

1 Set overall document settings as described in "Setting basic export options" on page 136 and "Setting specific export options for different export formats" on page 138, making sure to select either Macromedia Flash (SWF) or AutoLayout for the export format.

2 Select the object.

3 Do one of the following:

- If no settings have yet been specified for the object, click the Create a New Object Setting button <<**ICON**>> at the bottom of the palette. The Object Export Settings button <<**ICON**>> is then automatically selected and the Document Export Settings button <<**ICON**>> is deselected.
- If settings have previously been specified for the object, the Object Export Settings button is automatically selected and the Document Export Settings button is deselected.

4 Choose from options listed in the bottom half of the palette.

For a list of formats, see "About export formats" on page 127. For a description of available settings, see the instructions for setting document-level export settings for that format in "Setting specific export options for different export formats" on page 138.

To remove individual settings for an object:

1 Select the object.

2 Click the Delete Current Object Settings button <<**ICON**>> at the bottom of the palette.

Specifying a filename, alternate text, and a target for a sliced image

Before you slice an HTML composition that you are exporting in AutoLayout format, you can specify a filename and alternate text for the image. If you don't specify a filename, LiveMotion creates the name. Alternate text is used in a Web browser when an image is not found or when the image is downloading slowly. It is also used on Web browsers that don't support images or are configured to not download images.

If you are exporting in Macromedia Flash (SWF) format or AutoLayout format, you can also specify a target window or frame for a page that an image links to. For example, if you create a button that opens a Web page, you can specify whether you want the page to open in a new browser window. Or, you can specify that the page opens in a specific frame if you are using the button in a frameset.

For more information on using these fields, consult an HTML reference guide.

To specify a filename, alternate text, or target:

1 Select any object that will become part of an exported image.

2 Choose Window > Web.

3 Choose Detail View from the pop-up menu in the Web palette to expand the palette.

4 (AutoLayout format only) Type the name in the File Name text box to specify a filename for the exported image.

5 (AutoLayout format only) Type the text in the ALT text box to specify alternate text for the exported image.

6 (SWF format and AutoLayout format) To target an exported button's linked page to a new window or a specific frame in a frameset, make sure that you have entered a URL for the image, and then enter one of the following in the Window text box (make sure you include the underscore):

- *_blank* to load the linked page into a new browser window.
- *_parent* to load the linked page into the containing frame of the frameset.
- *_self* to load the linked page into the frame that contains the button. This is the default if no target is specified.
- *_top* to load the linked page into the top frame (include the underscore).
- The name of any frame in the frameset (do not include an underscore at the beginning).

For information on adding a URL to an exported image, see "Creating linked images and image maps" on page 120.

Making objects variables for use with Adobe GoLive

Adobe GoLive can detect replacement tags (variables) in LiveMotion files and control LiveMotion variable objects for automated graphics production, animation building, and

file updates via Smart LiveMotion objects. You can swap the text, assign or modify an embedded link, and apply a new style or texture using controls within GoLive. GoLive then launches LiveMotion, which applies the settings to the variables and generates a new SWF target file. See the *Adobe GoLive 6.0 User Guide* for details.

To make an object a variable for use with Adobe GoLive:

1 In LiveMotion, select the object.

2 Choose Window > Web to display the Web palette.

3 Choose Detail View from the pop-up menu in the Web palette to expand the palette.

4 In the Replace text box, enter a name for the variable, such as something that represents the type of object you want to replace in Adobe GoLive. For example, you could select an image object that represents a company logo and enter the name "logo" here.

5 Save the composition.

Tip: Adobe GoLive 's Convert Text to Banner command lets you take static text and transform it into an image or dynamic SWF-based animation to add an attractive looking navigation element to your Web page. This gives you functionality similar to the Batch Replace command in LiveMotion 1.0. In GoLive, you can select HTML text, choose the Convert Text to Banner command, and select a LiveMotion (LIV) source file with variables. The selected HTML text is assigned to the first text variable. You then use the Smart Object variables workflow to create the target file. See the *Adobe GoLive 6.0 User Guide* for details.

Using LiveMotion HTML code

As you build your Web pages, you can open and edit the HTML files that LiveMotion generates in a Web-page design application such as Adobe GoLive. You can also copy and paste the HTML code generated by LiveMotion into pages you create in another application. For example, if you create an image map in LiveMotion, you can do either of the following:

- Use the HTML page that LiveMotion generated in your Web site. The image reference and image map code are included in the source code of the page.
- Open the HTML page that LiveMotion generated in your Web-page design application or HTML editor. Then view the page's source, copy the image map code, and paste it into the source view of another page.

If you've used the Replace field in the Web palette and want to edit the original text, you can edit the datamap code in the Web page's source code. **<<Does this still apply, since we don't do batch replace the old way as in LM 1.0?>>**

For more information, see the documentation that came with your Web-page design application or an HTML reference guide.

To copy JavaScript code into a Web page using Adobe GoLive:

1 In GoLive, open the HTML page that LiveMotion created and click the Layout tab to show the Layout Editor.

2 Click the little blue triangle under the Layout tab to display the head section.

3 Drag the HeadScript icon from the Head section of the HTML page into the Head section of the page to which you are adding it.

4 Drag any images or other elements from the body section of the LiveMotion page into the body section of the page into which you want to copy it.

To copy JavaScript code into a Web page if you don't have Adobe GoLive:

1 In your HTML editor, open the HTML page that LiveMotion created. If you are using a Web-page design application such as Adobe GoLive, open the HTML page and select Source Mode.

Tip: In GoLive, you can also drag the script icon from the Basic tab of the Objects palette and place it on your page. Then double-click the icon on the page to open a text window to copy the JavaScript into.

2 Copy the JavaScript code from the Head section of the HTML page into the Head section of the page to which you are adding it. Copy all the text between the beginning tag <Script> and the closing tag </Script>.

3 Copy the anchor elements for the images from the Body section of the page and paste them to the appropriate location where you want them to appear in the body of the other page. The anchor element begins with the tag <a HREF= "*nnn*"> and ends with the tag. The anchor element will also contain the reference to the image files.

To copy image map code into a Web page using Adobe GoLive:

1 In GoLive, open the HTML page that LiveMotion created and click the Layout tab to show the Layout Editor.

2 Select the image you want to copy, then drag it by the image border into the Layout Editor of the document you want to copy it to.

To copy image map code into a Web page if you don't have Adobe GoLive:

1 In your HTML editor, open the HTML page that LiveMotion created. If you are using a Web-page design application such as Adobe GoLive, open the HTML page and switch to Source Mode.

2 Copy and paste the reference code for the exported image and the image map into the source code of your new page. The image reference begins with the tag <img SRC= and ends with the symbol >. The image map code immediately follows and is enclosed by the tags <MAP name= "*nnn*"> and </MAP>.

To use Adobe GoLive to edit the original text in a Web page after batch replacing with images:

1 In GoLive, open the HTML page that LiveMotion created and click the Layout tab to show the Layout Editor.

2 Select the image in the Layout Editor.

3 In the Image Inspector, click the More Tab to display the More panel.

The Name Attribute text field shows the name of the image.

4 Scroll to the bottom of the document.

5 Select the DataMap comment tag to display the comments text in the Inspector palette.

6 Find the *ObjId* that matches the Name attribute.

7 Edit the text in the *FPOrigText* attribute associated with the ObjId, for example, <?FPPI ObjId="object10" FpOrigTag="H1" FpOrigText="My Heading" ?>.

To edit the original text in a Web page after batch replacing with images if you don't have Adobe GoLive:

1 In your HTML editor, open the Web page. If you are using a Web-page design application such as GoLive, open the Web page and switch to Source Mode.

2 Find the reference for the image you want to change (it starts with <img SRC=). Note the Name attribute for the image reference, for example, Name="object10".

3 At the end of the source code, before the </Body> tag, you'll find the DataMap comment that LiveMotion created. Find the *ObjId* that matches the Name attribute. Edit the text in the *FPOrigText* attribute associated with the ObjId, for example, <?FPPI ObjId="object10" FpOrigTag="H1" FpOrigText="My Heading" ?>.