Avid® Marquee® Title Tool
User's Guide

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Using This Guide

This guide describes how to use the Avid® Marquee® Title Tool (Marquee), a powerful title-animation and graphics component of Avid editing applications. You can use Marquee to create a wide variety of titles for use in your Avid editing application or in other applications.

This guide is intended for all Marquee users, from beginning to advanced. The guide assumes that you are familiar with the basic methods used to manage projects, edit sequences, and apply effects in your Avid editing application. For information on these procedures, see the documentation for your Avid editing application.

This guide includes materials specially designed for new users of Marquee. Two tutorial chapters (Chapter 1 and Chapter 2) teach you how to create basic titles quickly and introduce you to some of Marquee's more advanced capabilities. Chapter 3 contains complete, self-contained instructions for creating the most common types of titles in Marquee. In combination with the tutorial lessons in Chapter 1, Chapter 3 provides all the information you need to create basic lower thirds, rolls, and crawls

Unless noted otherwise, the material in this document applies to the Windows XP and Mac OS X operating systems.The majority of screen shots in this document were captured on a Windows XP system, but the information applies to both Windows XP and Mac OS X systems. Where differences exist, both Windows XP and Mac OS X screen shots are shown.

This guide describes certain functions of Avid editing applications that relate to the use of Marquee. Because Marquee is available with a range of Avid editing applications, it is not possible to illustrate all variations in the appearance of the editing application interface. Some details of the interface in your Avid editing application might be different from those shown in the illustrations in this guide.

Symbols and Conventions

Avid documentation uses the following symbols and conventions:

Symbol or Convention	Meaning or Action
	A note provides important related information, reminders, recommendations, and strong suggestions.
	A caution means that a specific action you take could cause harm to your computer or cause you to lose data.
	A warning describes an action that could cause you physical harm. Follow the guidelines in this document or on the unit itself when handling electrical equipment.
	In the tutorial chapters, the Title Tool to Marquee icon marks information that will help you make the transition from the classic Avid Title tool to Marquee.
>	This symbol indicates menu commands (and subcommands) in the order you select them. For example, File > Import means to open the File menu and then select the Import command.
▶	This symbol indicates a single-step procedure. Multiple arrows in a list indicate that you perform one of the actions listed.
⌘	This symbol represents the Apple or Command key. Press and hold the Command key and another key to perform a keyboard shortcut.
Margin tips	In the margin, you will find tips that help you perform tasks more easily and efficiently.
(Windows), (Windows only), (Macintosh), or (Macintosh only)	This text indicates that the information applies only to the specified operating system, either Windows XP or Macintosh OS X.
Italic font	Italic font is used to emphasize certain words and to indicate variables.
`Courier Bold font`	Courier Bold font identifies text that you type.
Ctrl+*key* or *mouse action* ⌘+*key* or *mouse action*	Press and hold the first key while you press the last key or perform the mouse action. For example, ⌘+Option+C or Ctrl+drag.

If You Need Help

If you are having trouble using Marquee:

1. Retry the action, carefully following the instructions given for that task in this guide. It is especially important to check each step of your workflow.
2. Check for the latest information that might have become available *after* the documentation was published:
   - The ReadMe files are available in your Avid application folder. ReadMe files are also available from Help. You need Adobe® Acrobat® Reader® to view the ReadMe file.

The most up-to-date ReadMe files are available on the Avid Knowledge Base.

3. Check the documentation that came with your Avid application or your hardware for maintenance or hardware-related issues.
4. Visit the online Knowledge Base at www.avid.com/onlinesupport. Online services are available 24 hours per day, 7 days per week. Search this online Knowledge Base to find answers, to view error messages, to access troubleshooting tips, to download updates, and to read/join online message-board discussions.
5. For Technical Support, please call 800-800-AVID (800-800-2843).

   For Broadcast On-Air Sites and Call Letter Stations, call 800-NEWSDNG (800-639-7364).

Accessing the Online Library

The Online Library disk for your Avid editing application contains all the product documentation in PDF format together with other learning resources such as multimedia tutorials and movies. Avid recommends the multimedia tutorial as your first resource for learning how to use your application. You can access the library and tutorial from the Online Library disk or from the Help menu.

The Online Library that ships with all Avid editing applications includes a Master Glossary of all specialized terminology used in the documentation for Avid products.

You will need Adobe® Acrobat® Reader® installed to view the documentation online. You can download the latest version of Acrobat Reader from the Adobe Web site. The effects reference guide requires Apple's QuickTime® application to view the QuickTime movies. You can download the latest version of QuickTime from the Apple® Web site.

To access the online library and tutorial from the CD-ROM:

1. Insert the Online Library CD-ROM into the CD-ROM drive.
2. Double-click the Mainmenu file.

To access the online library and tutorial from the Help:

1. Insert the Online Library CD-ROM into the CD-ROM drive.
2. In your Avid application, select Help > Online Library & Tutorial.

Related Information

The release notes or ReadMe files for your Avid editing application might contain additional information about Marquee.

Information is also available in the form of online Help. For information on viewing online Help, see "Using Help" on page 209.

For information on Avid editing application operations that you might perform on titles created in Marquee, see the documentation for your Avid editing application.

For hardware-related issues, refer to the documentation that came with your computer.

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Chapter 1
Tutorial I: Basic Titles

This chapter is the first of two tutorial chapters that give you a hands-on introduction to Marquee. The lessons in this chapter teach you how to create basic versions of the most common titles quickly and easily.

Each lesson does the following:

- Defines the goals of the lesson
- Provides step-by-step instructions and supporting information
- Summarizes what you have learned, offering suggestions for further practice, and providing references to additional information in this guide

If you are familiar with the classic Avid Title tool, additional information in this chapter helps you make the transition from that tool to Marquee. The step-by-step instructions for Marquee are accompanied in the margins by descriptions of significant equivalent steps in the Title tool, allowing you to compare procedures directly. The lessons also include summaries of the differences between the two tools and several additional notes and tips. Look for the Title Tool to Marquee icon (shown in the margin beside this paragraph) to locate this information.

This chapter contains the following main sections:

Lesson 1: Getting Started with Marquee

In this lesson, you will create a simple sequence in your Avid editing application. Then you will open Marquee, create a new title, and practice moving around in Marquee and switching between Marquee and your editing application.

This lesson includes the following sections:

The Marquee methods that you will learn in this lesson are very similar to their equivalents in the Title tool. There are slight differences in the way you create a new title and in the way you switch between the titling tool and your Avid editing application. These differences, noted in the lesson, have only a minor effect on your workflow.

Creating the Tutorial Sequence

To start this lesson, you need to create a new project in your editing application and then create a simple sequence so that you have some reference background material to view in Marquee. The sequence will consist of three imported graphics files. This initial setup takes a few minutes, but you will have to do it only once for the entire tutorial.

To set up the project and create the tutorial sequence:

1. Start your editing application.

   Depending on which editing application you are using, either the Select Project or the Select User and Project dialog box appears.

2. (Option) If the Select User and Project dialog box has appeared (allowing you to create or select a user within the application), select an existing user from the Users list, or create a new user by doing the following:

   a. Click New User.

      The New User dialog box appears.

   b. Type your name in the Name text box, and then click OK.

      The new user you have just created is highlighted in the Users scroll list of the Select User and Project dialog box.

3. Create a new project by doing the following:

   a. Click New Project.

      The New Project dialog box appears.

   b. Type **`Marquee Tutorial`** in the Project Name text box.

   c. Choose a standard definition format, such as 30i NTSC, from the Format list

   d. Click OK.

      The new project you have just created is highlighted in the Projects list of the Select Project or the Select User and Project dialog box.

4. Click OK.

   The Project window opens. Most Avid editing applications also create and open a new bin named “Marquee Tutorial Bin.”

5. (Option) If a bin is not created when the project first opens, click New Bin to create a new bin.

   The application creates and opens a new bin named “Marquee Tutorial Bin.”

6. Click the title bar of the Marquee Tutorial Bin window to make the bin active.

7. Import the graphics files that you will use to create the sequence by doing the following:

   a. Select File > Import.

      The “Select files to Import” dialog box appears.

   b. Navigate to one of the following locations (depending on your operating system), where *Editing Application* is the name of your Avid editing application:

(Windows)
drive letter:\Program Files\Avid*Editing Application*\marquee\Tutorials\Images

The location of the Tutorials folder on your system might be slightly different if you did not use the default installation path when you installed your Avid editing application.

(Macintosh)
drive name/Applications/*EditingApplication*/Marquee/Tutorials/Images

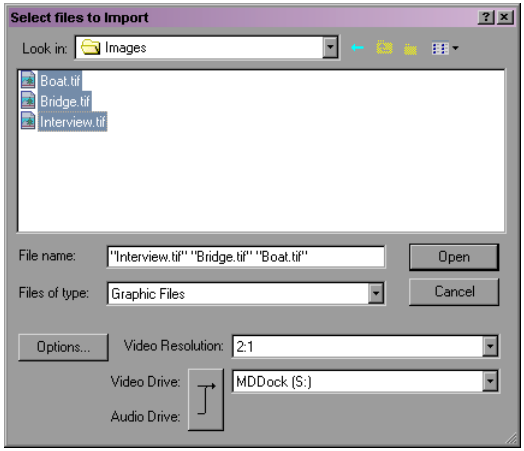
c. Ctrl+click (Windows) or ⌘+click (Macintosh) each of the following files:

Boat.tif

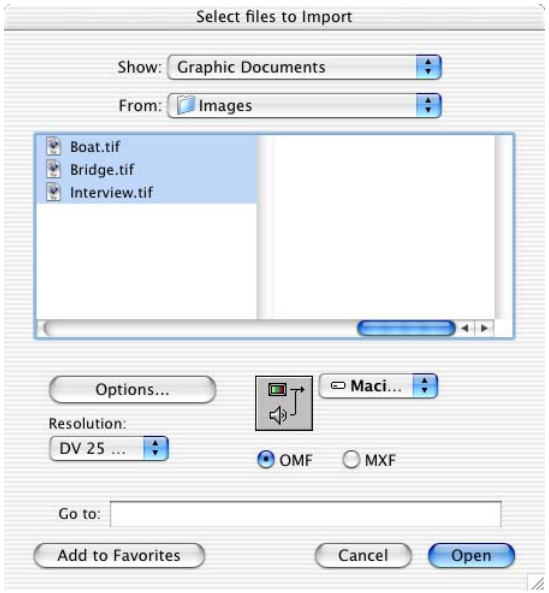
Bridge.tif

Interview.tif

If you cannot see these three image files, select Graphic Files from the "Files of type" list (Windows) or Graphic Documents from the Show list (Macintosh).



Windows

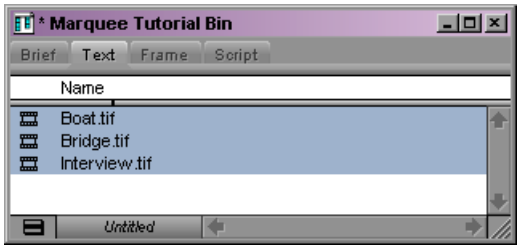


Macintosh

d. Click Open.

The system imports the three files as clips that appear in the bin.

8. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the clips in the bin.



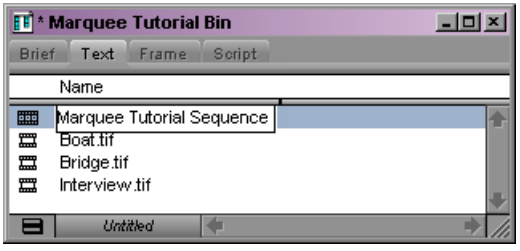
9. Press and hold the Alt key (Windows) or Option key (Macintosh), and drag the selected clips into the Record monitor.

The system creates a new 30-second sequence using the three clips in the order they appeared in the bin.

10. In the bin, rename the sequence by doing the following:

a. Click the default name, Untitled Sequence.01.

b. Type **`Marquee Tutorial Sequence`**.



c. Press Enter (Windows) or Return (Macintosh).

Opening Marquee and Creating a New Title

To open Marquee and create a new title:

1. Select Clip > New Title.

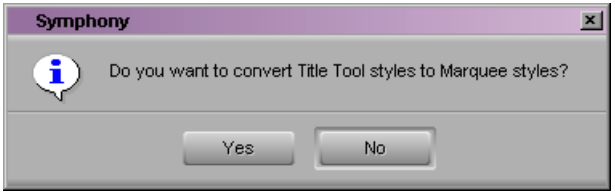
The New Title dialog box appears.

The New Title dialog box allows you to select which titling tool you want to use — Marquee or the Title tool.

To open the Title tool: click Title Tool in the New Title dialog box.

2. Click Marquee.

   A message box appears, asking if you want to convert Title Tool title styles to Marquee styles.



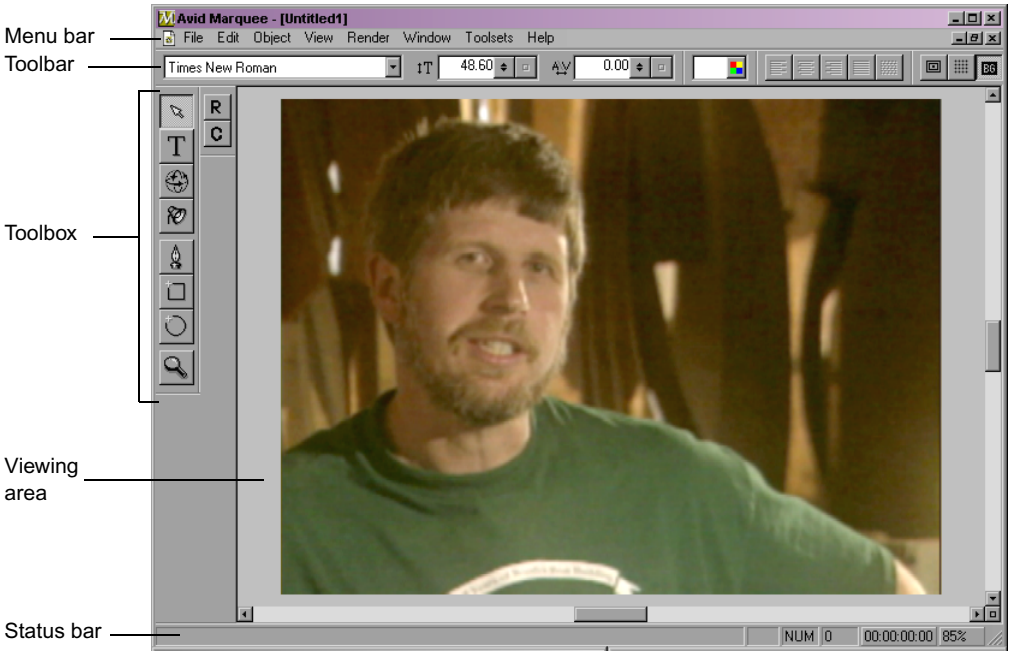
3. Click No.

   Marquee opens and creates a new title.

You might want to click Yes in the message box once you start working regularly in Marquee. When you do, your editing application converts all your existing Title Tool title styles to Marquee styles. For more information, see "Converting Title Tool Title Styles to Marquee" on page 236.

Getting Started with the Monitor Window

Take a few moments now to familiarize yourself with the Monitor window, the large window in the upper right area of the screen. This is Marquee's main window.



Macintosh menu bar

On Windows, there is a menu bar at the top of this window from which you can access many of Marquee's menu commands. On the Macintosh, the menu bar is at the top of the entire screen and is not part of the Monitor window.

Near the top of the Monitor window on both Windows and Macintosh is a toolbar with buttons that allow you to make many adjustments to your titles with a single click.

At the left is a toolbox with buttons that let you switch between different tools. You use these tools to manipulate the objects in your title. The toolbox is similar to the toolboxes or tool palettes found in most graphics applications.

At the bottom of the window is a status bar that displays useful information, allows you to view the title at different points in time, and allows you to change the magnification of the title.

The middle of the Monitor window is a viewing area that displays the workspace in which you create and modify the contents of your title.

In the center of the workspace is the scene, which shows the area that will be visible in the finished title. At present, the scene shows a reference background image. This image is copied from the current frame (the location of the position indicator) of the sequence in your editing application. It is important to understand that this image is not part of the title itself. It is displayed so that you can check the look of the title against the video material.

Outside the scene is a gray adjustment area that you can use to position moving title elements when you are creating animated titles.

Many controls in the toolbar of the Title tool have their equivalents in the Monitor window toolbar and toolbox in Marquee. You'll use most of them as you work through this tutorial. The area in which you view your title in the Title tool is similar to the viewing area of the Monitor window in Marquee. However, the Title tool has no adjustment area since it is not capable of animating titles.

Now try some basic methods for changing the display in the viewing area.

To change the magnification in the viewing area:

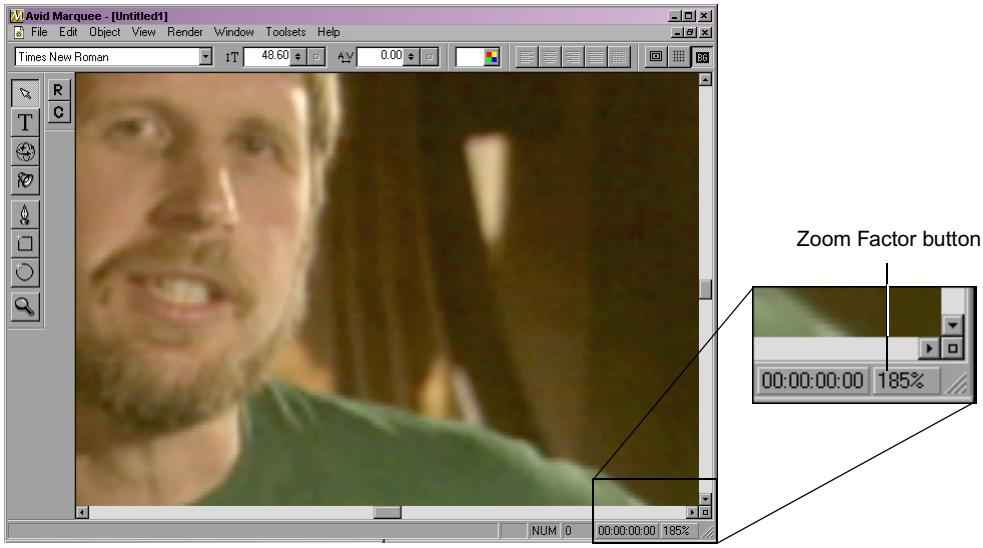
There is no method for changing the magnification in the Title tool.

1. Press Ctrl+= (equal) (Windows) or ⌘+=(equal) (Macintosh).

   The magnification of the scene in the viewing area increases by 50 percentage points.

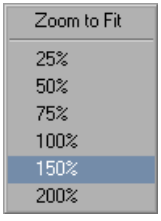
2. Press Ctrl+= (equal) (Windows) or ⌘+=(equal) (Macintosh) again to increase the magnification by another 50 percentage points.

   Notice that the current magnification always displays on the Zoom Factor button at the right side of the status bar.



3. Press Ctrl+- (hyphen) (Windows) or ⌘+-(hyphen) (Macintosh), and then press Ctrl+- (hyphen) (Windows) or ⌘+-(hyphen) (Macintosh) again.

   Each time you press the key combination, the magnification decreases by 50 percentage points, returning you to the default magnification.



4. Click the Zoom Factor button on the status bar, and then select 150%.

   In addition to displaying the current magnification, the Zoom Factor button provides another way for you to change magnification levels.

5. Click the Zoom Factor button again, and then select Zoom to Fit.

   Zoom to Fit returns the view to a magnification that shows the whole scene plus a small surrounding part of the adjustment area.

To change some aspects of the display in the viewing area:

1. Click the Background button (the button furthest to the right on the toolbar).

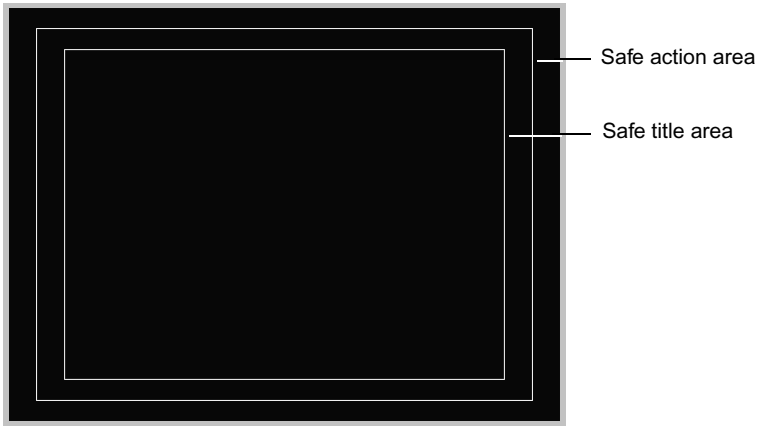
   The reference background image disappears. It is often useful to turn off the reference background image so that you can concentrate on the title elements you are creating, and turn it back on to check how the title looks against the background.

Title tool equivalent: click the Video Background button.

2. Click the Safe Action/Title button (third button from the right on the toolbar).

   Safe action and safe title guides appear. The safe action guide shows the area within the scene where action is guaranteed to be visible on television displays. The safe title guide shows the area where titles are guaranteed to be readable on television displays.

Title tool equivalent: select Object > Safe Title Area/Global Grid. In the Title tool, the guides are on by default.



3. Click the Background button again.

   Now both the reference background image and the safe action and safe title guides display at the same time.

Switching Between Marquee and Your Avid Editing Application

You sometimes need to switch between Marquee and your Avid editing application as you work. One reason for doing so is to change the frame in the sequence that Marquee is using as the reference background image. This allows you to check how your title looks against different frames of the video material.

There are several ways to switch between open applications on your system. The following steps teach you the following two methods:

- How to switch to an application simply by clicking in it

  This method is only available if the arrangement of windows in the two applications allows you to see part of the inactive application beneath the active one.

- How to switch to an application using the Alt+Tab (Windows) or ⌘+Tab (Macintosh) keyboard shortcut.

Because Marquee and your Avid editing application operate as separate applications, switching between the two is slightly more complicated than it is when you are working with the Title tool. You need to take one extra step to reactivate the application you are moving to before you can work in it again.

To switch between Marquee and your Avid editing application and to change the reference background image:

1. If Marquee covers your entire desktop and you cannot see any part of the interface for your Avid editing application, adjust the size or position of a Marquee window so that part of the Avid editing application interface is visible.
2. Click anywhere in the visible part of the Avid editing application.

   This makes the editing application active and brings it to the foreground. Marquee is inactive (and might be completely hidden behind the editing application), but is still open.

You use the same method to update the Video Background in the Title tool.

3. In the editing application Timeline, click the Boat.tif clip (the first clip in the sequence) to move the position indicator to that clip.
4. Press and hold the Alt key (Windows) or the ⌘ key (Macintosh), and then press and release the Tab key once without releasing the Alt key (Windows) or ⌘ key (Macintosh).

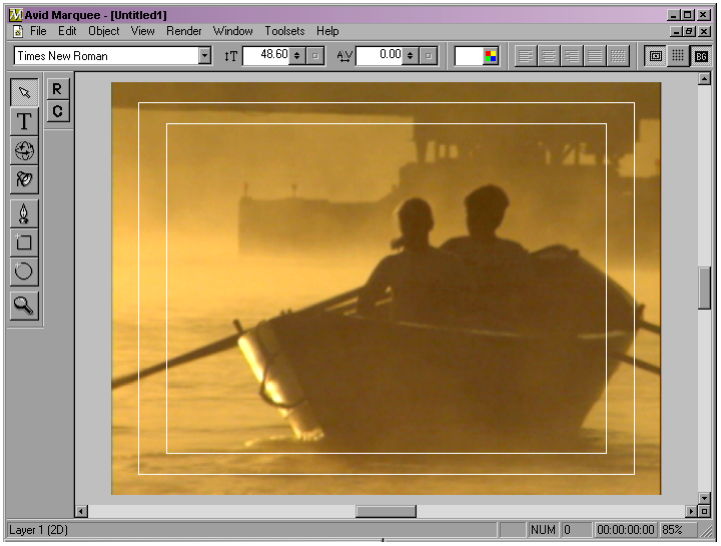
   On Windows, a message box appears that shows the icon of each application currently running on your system. On the Macintosh, the Dock appears. Since Marquee was the last active application before you switched to the editing application, the Marquee icon is highlighted and the Marquee name appears (in the message box on Windows or above the Marquee icon in the Dock on the Macintosh).

Windows

Macintosh

5. Release the Alt key (Windows) or ⌘ key (Macintosh).

   The Marquee user interface reappears and the reference background image in the Monitor window changes to reflect the new location of the position indicator in the editing application.



6. Repeat step 4.

   This time the editing application becomes active since the editing application was the last active application before you switched to Marquee.

7. In the editing application Timeline, click the Interview.tif clip (the last clip in the sequence).
8. Repeat step 4.

   The Marquee interface reappears and the background image updates again to show the Interview image.

Saving the Title as an .mqp File

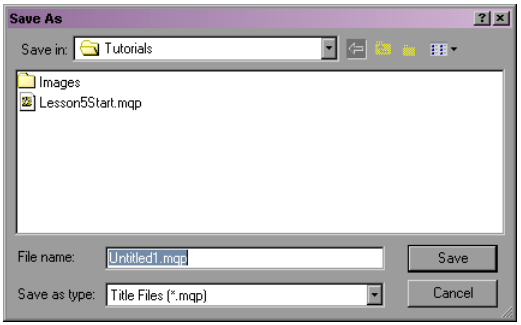
Even though you have not yet created any content for your title, you can take the opportunity now to learn one way to save titles in Marquee. You will save your title as an .mqp file. This is a Marquee file that you can reopen at any time to continue creating and editing the title. Think of it as an easy way to save unfinished work that you are not yet ready to make into a title clip in your editing application.

There is no exact equivalent in the Title tool for this "in progress" save procedure. It is particularly useful if you want to save complex unfinished titles without creating a title clip or when you want a quick and compact format for moving an unfinished title between systems. The nearest equivalent is the Fast Save option. Titles do not have to be saved as .mqp files; you can save them to your Avid editing application as title clips (with or without Fast Save) and edit them from a bin or sequence just like title clips created with the Title tool.

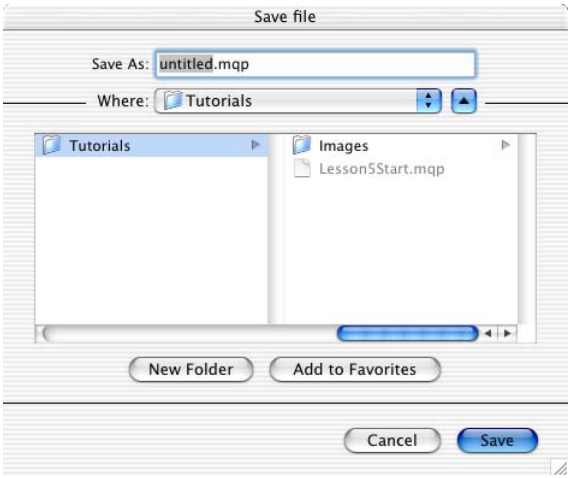
To save the title as an .mqp file:

1. Select File > Save.

   The Save As dialog box (Windows) or "Save file" dialog box (Macintosh) appears.



Windows



Macintosh

2. If necesary, navigate to the location where you want to save the file. For convenience, Avid recommends that you save tutorial files in the Tutorials folder created when your editing application is installed:

   (Windows)
   drive letter:\Program Files\Avid*Editing Application*\marquee\Tutorials

The location of the Tutorials folder on your system might be slightly different if you did not use the default installation path when you installed your Avid editing application.

   (Macintosh)
   drive name/Applications/*Editing Application*/Marquee/Tutorials

3. Type **`LowerThird`** in the “File name” text box (Windows) or “Save As” text box (Macintosh), and then click Save.

   Marquee saves the title in the Tutorials folder or in your chosen location.

Quitting Marquee

If you do not want to proceed to the next lesson immediately or do other work in Marquee, you can quit Marquee now.

To quit Marquee:

Title tool equivalent: select File > Close.

1. Select File > Exit (Windows) or Marquee > Quit Marquee (Macintosh).

   A message box appears, asking if you want to save the current title to a bin in your Avid editing application.

2. Click Cancel.

   Marquee quits and the editing application interface reappears.

Lesson 1 Summary

In this lesson you have learned:

- How to open Marquee and create a new Marquee title
- The layout of the Monitor window in Marquee
- How to change magnification and display in the Monitor window
- How to switch between Marquee and your Avid editing application
- How to change the reference background image that displays in Marquee
- How to save a title in progress as an .mqp file
- How to quit Marquee

For further experimentation, try the following:

- Pan your view of the title by using the viewing area's vertical and horizontal scroll bars.
- Display a grid of reference points for aligning objects by using the Grid button (second button from the right on the toolbar).
- Edit any moving video clip into the Marquee Tutorial Sequence, and then switch between Marquee and your editing application, changing the location of the position indicator in the video clip, to see how Marquee updates the reference background to show different frames in moving video.

For Complete Information On	See
How Marquee and your Avid editing application work together	The chapter "Using Marquee with Your Avid Editing Application" on page 213
Creating titles and customizing title settings	"Creating Titles" on page 242 and "Title Duration and Title Formats" on page 243
Working in the Monitor window	"Monitor Window" on page 180
Panning and zooming a title	"Panning and Zooming" on page 258
Displaying guides for titles	"Displaying Guides" on page 269

Lesson 2: Creating a Basic Lower Third

This lesson shows you the quickest and simplest way to create a lower-third title that you might use to identify a speaker in a news or documentary program. This lesson will introduce you to the concept of title objects and their properties. This lesson will also expand your understanding of the default Marquee interface by showing you how to use the Templates Library window and the Quick Titles Properties window.

This lesson includes the following sections:

- Before You Begin
- Applying a Lower-Third Title Template
- Changing the Content of the Text Objects
- Changing the Color of Title Objects
- Adjusting Properties in the Quick Titles Properties Window
- Saving the Title to Your Avid Editing Application
- Lesson 2 Summary

Because Avid does not supply predefined templates for the Title tool, you cannot create a basic lower third as quickly in the Title tool as you can in Marquee. You must create each text or graphic object manually. Once you have saved a template of your own in the Title tool, the general workflow for creating other lower thirds based on the template becomes very similar to the Marquee workflow in this lesson.

Before You Begin

In your editing application, Marquee Tutorial Sequence should be open and the position indicator should be in the Interview.tif clip. In Marquee, the current title should be LowerThird.mqp.

If you are continuing directly from Lesson 1, Marquee and the editing application are ready for you to continue. If you quit Marquee at the end of Lesson 1, you need to set up the sequence in your editing application, open Marquee, and reopen LowerThird.mqp from within Marquee.

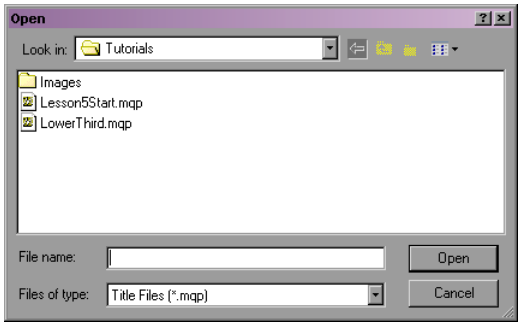
To set up your Avid editing application and Marquee for this lesson:

1. In your editing application, open the Marquee Tutorial project and load the Marquee Tutorial Sequence.
2. In the Timeline, move the position indicator to the Interview.tif clip.
3. Select Clip > New Title, and then click Marquee.
4. In the message box, click No.

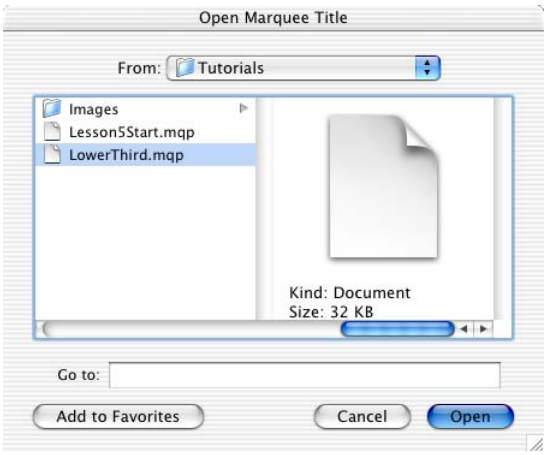
   Marquee opens and creates a new title. In this case, you want to load the existing LowerThird.mqp title, so you need to close this new title and open the existing one.
5. Select File > Close (Windows) or File > Close *untitled.mqp* (Macintosh)

   The newly created title closes, and the entire viewing area changes to gray, indicating that there is no title open.
6. Select File > Open (Windows) or File > Open Marquee Title (Macintosh).

   The Open dialog box (Windows) or Open Marquee Title dialog box (Macintosh) appears.



Windows



Macintosh

7. If it is not already visible, navigate to the following location (or to the alternative location where you saved your title at the end of Lesson 1):

   (Windows)
   drive letter:\Program Files\Avid\Avid *Editing Application*\marquee\Tutorials

The location of the Tutorials folder on your system might be slightly different if you did not use the default installation path when you installed your Avid editing application. For example, the initial drive letter might be different.

   (Macintosh)
   drive name/Applications/*Editing Application*/Marquee/Tutorials

8. Double-click LowerThird.mqp.

   LowerThird.mqp opens and displays in the viewing area.

9. If necessary, click the Background and Safe Action/Title buttons to display the background image and the safe action/title guides.

Applying a Lower-Third Title Template

This section of the lesson uses the Library window, located in the lower left corner of the screen. In the default Marquee interface, the Library window contains five tabs that are used to store and organize library elements. Library elements are collections of prepackaged information (either supplied by Avid or created by the user) that you can use to speed up or completely automate various aspects of title creation.

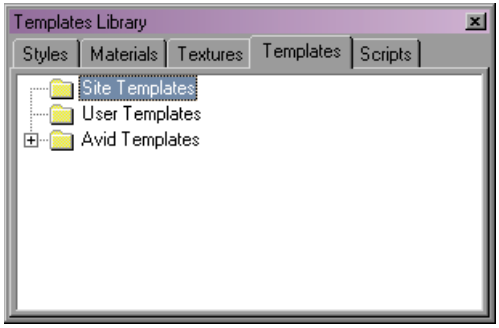
The Templates Library contains title templates, which are sets of title objects arranged and formatted for a specific purpose. A title object is an individual component of a title, such as a piece of text or a graphic element.

Avid supplies several templates for creating lower thirds. When you apply one of these templates, all the text and graphics objects needed to create a specific lower-third look appear in your title. Just change the text content and you have a finished lower third.

To apply a lower-third template:

1. In the Library window (currently titled Styles Library), click the Templates tab.

   The title of the window changes to Templates Library, and the Templates folder structure appears.

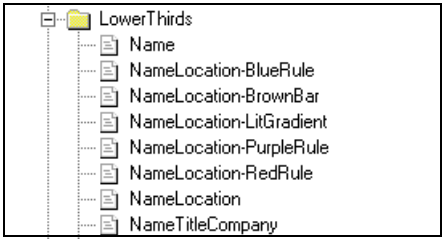


2. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside the Avid Templates folder.

   The view of the templates folder structure expands to show the contents of the Avid Templates folder.

3. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside the LowerThirds folder.

   The view of the templates folder structure expands to show the contents of the LowerThirds folder.



4. Double-click the NameLocation-BlueRule template.

   Several items appear in the viewing area of the Monitor window. These are the title objects that make up the lower third.

When they first appear, all the objects are surrounded by red bounding boxes with square bounding-box handles, which means that they are selected.

You can get a better sense of the design of the lower third by deselecting the objects and by hiding the safe action/title guide.

To view the lower third more clearly:

1. Click anywhere in the viewing area outside the red bounding boxes of the title objects.

   The objects are deselected, and the red bounding boxes disappear.

2. Click the Safe Action/Title button to hide the guides.

   You can now clearly see the design of the lower third against the Interview background. Two text objects and a blue bar graphic are positioned appropriately in the lower part of the scene.

Changing the Content of the Text Objects

You now need to replace the text in your title. You need to change “Name” to an actual name and “Location” to actual information such as an occupation, a person’s title, or the name of a place.

Edit tool 

Text tool 

To do this, you need to switch to a different toolbox tool. You are currently using the default Edit tool, which you use to select any kind of title object when you want to modify the whole object. To change the characters that appear in a text object, you need to switch to the Text tool. You will quickly become familiar with switching between these two tools when you use Marquee to create title text.

The Title tool uses the Text tool *and the* Selection tool, *which have similar functionality and nearly identical button icons to the Marquee* Text tool *and* Edit tool.

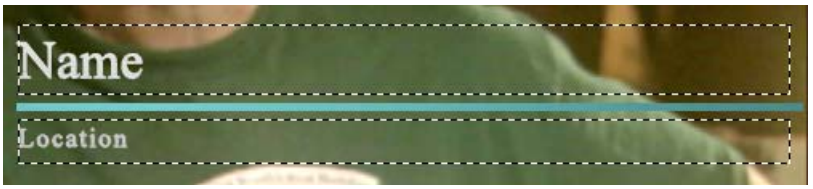
When you select a text object using the Text tool, you tell Marquee to treat the object like a small text file in a word processing application. You can then change the text by typing.

To change the text content:

1. Click the Text tool in the toolbox on the left of the Monitor window.

   Dotted-line bounding boxes appear around the two text objects in your title. This type of bounding box identifies all text objects that are not selected when you are working with the Title tool.

Title tool equivalent: click the Text tool in the toolbar.



2. Move the pointer into the viewing area.

   As the pointer enters the viewing area, its appearance changes — you see an I-beam in addition to the arrow.

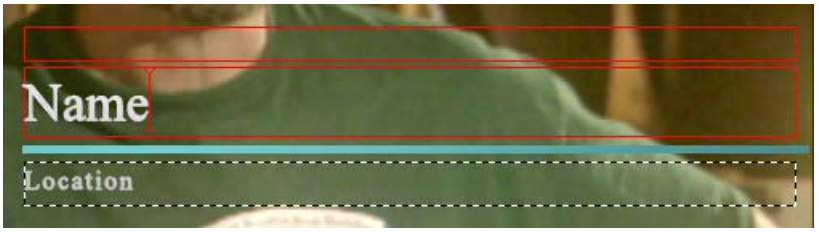
3. Move the pointer inside the dotted-line bounding box that surrounds the “Name” text object.

   The pointer changes again so that it is simply an I-beam. This indicates that the pointer is over text material that you can select and change.

In the Title tool, the pointer and I-beam look slightly different, and text objects do not display with any kind of bounding box when the Text tool is active. Otherwise, you select the whole text object the same way in the Title tool as you do in Marquee: click inside the object, and press Ctrl+A (Windows) or ⌘+A (Macintosh).

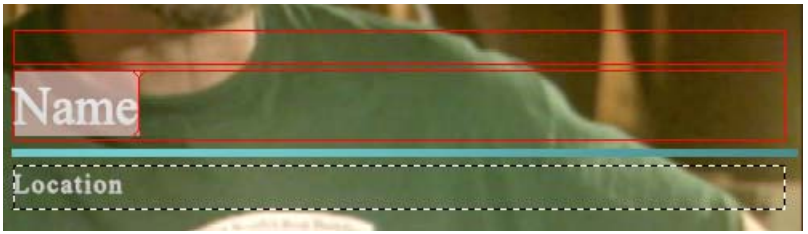
4. Click inside the dotted-line bounding box that surrounds the “Name” text object.

   The bounding box changes to a solid red box with an additional red box above and a large red I-beam pointer. This is the bounding box that indicates that a text object is selected with the Text tool. You can now edit the text.



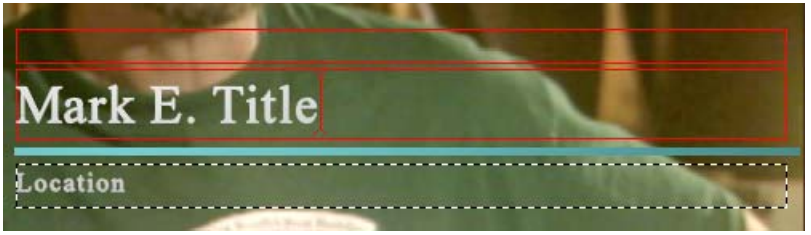
5. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text in the "Name" text object.

   The whole word "Name" is highlighted.



6. Type **`Mark E. Title`** or another name.

   The characters of the name you type replace the word "Name" in the text object.



7. Click inside the dotted-line bounding box that surrounds the "Location" text object.

   Now this object is surrounded by the red box.

8. Press Ctrl+A (Windows) or ⌘+A (Macintosh), and type **`Senior Editor`** or other identifying information.

   The words you type replace the word "Location" in the text object.

9. Deselect all objects, and hide all bounding boxes by doing the following:
   a. Click outside the two text objects.
   b. Click the Edit tool in the toolbox on the left of the Monitor window.

Changing the Color of Title Objects

Next, you will make a basic modification by changing the color of your title objects. Adjusting the color of objects is one of the most common modifications that you make in Marquee.

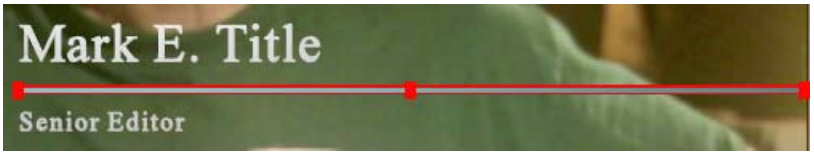
The controls for changing color that are available in Marquee are a little different from those in the Title tool, but the general approach is the same. In the Title tool, you make basic color selections from the Title Tool Color Picker *and use the standard Color controls for your operating system for more precise color definition. In Marquee, you make basic color selections from the* Color menu *and use the* Color Picker dialog box *for more precise color definition. In both tools, you can use an eyedropper to select a color from the screen.*

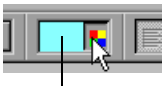
You will change the color of the blue bar graphic and then change the color of both text objects at once so that they are the same.

To change the color of your title objects:

1. Click the blue bar graphic to select it.

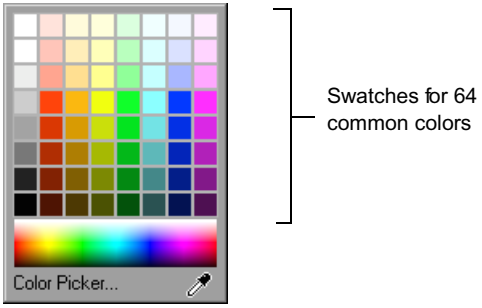
   A red bounding box with bounding-box handles appears around the blue bar.





2. Click the button beside the color well in the Monitor Window toolbar.

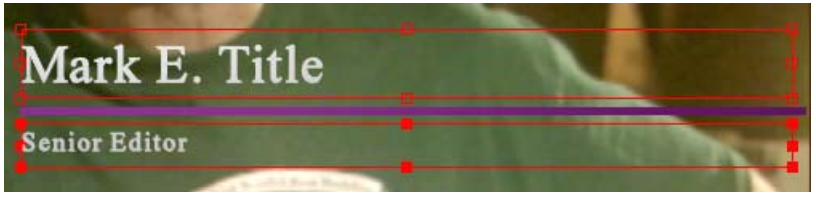
   The Color menu appears.

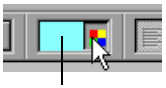


Title tool equivalent: click and hold the Fill Color Selection box, and select a color from the Title Tool Color Picker.

3. Click one of the 64 common color swatches to change the blue bar to that color.
4. Click one of the text objects to select it.
5. Ctrl+click (Windows) or ⌘+click (Macintosh) the other text object.

   You now have multiple objects selected at the same time. Red bounding boxes appear around both of them.





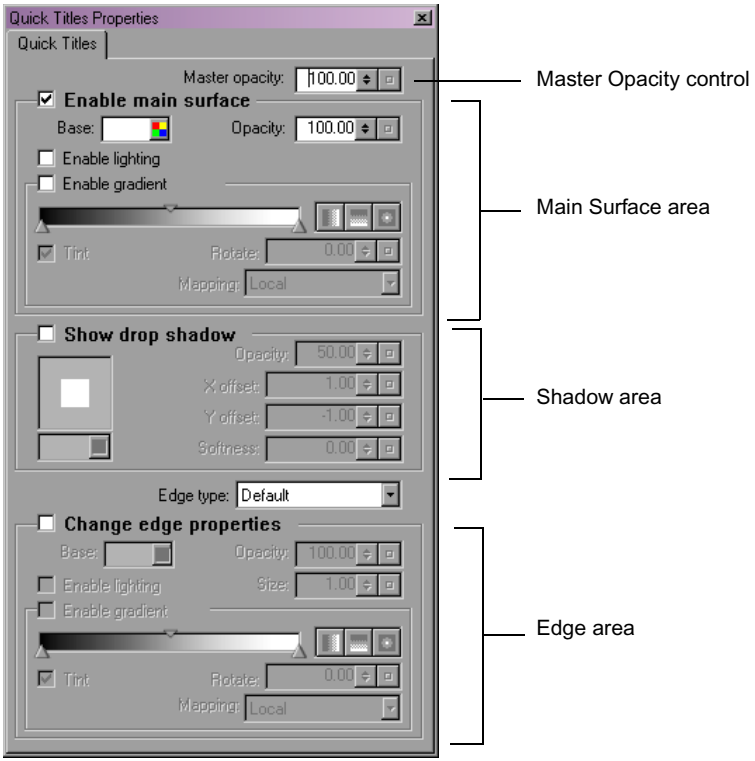
6. Click the button beside the color well in the toolbar.
7. Click one of the 64 common color swatches to change the color of all text in both text objects to that color.
8. Click outside the selected objects to deselect them and check the appearance of your title.

Adjusting Properties in the Quick Titles Properties Window

The attributes of a title object in Marquee are known as properties of that object. When you changed the colors of your title objects in the last section, you changed a color property for each object.

Although you can change some properties directly from the toolbar, or by manipulating an object in the viewing area, you make most changes to properties by using controls in the Properties windows. The default Marquee interface includes the Quick Titles Properties window, which groups the most commonly used property controls in one place.

Take a moment to familiarize yourself with the Quick Titles Properties window, located in the upper left corner of the screen. Three groups of controls allow you to alter the main surface of an object, define a drop shadow, and add an Edge effect. Above the groups is a Master opacity control to change the opacity level of the whole object.



Properties windows have no overall equivalent in the Title tool. They provide controls that allow for much more complex title effects than are possible in the Title tool. However, you'll find some individual controls familiar. For example, the Shadow tool *in the Quick Titles Properties window functions very much like the* Shadow Depth and Direction button *in the Title tool.*

You will now add the finishing touches to your basic lower third by applying a drop shadow to all three objects.

To add a drop shadow to the title objects:

1. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the objects.
2. In the Quick Titles Properties window, select "Show drop shadow."

   A drop shadow with a standard offset appears on each object.
3. Click outside the objects to deselect them and view your title more clearly.

Title tool equivalent: press Ctrl+A or ⌘+A to select all the objects, and drag the Shadow Depth and Direction button to define a drop shadow.

Saving the Title to Your Avid Editing Application

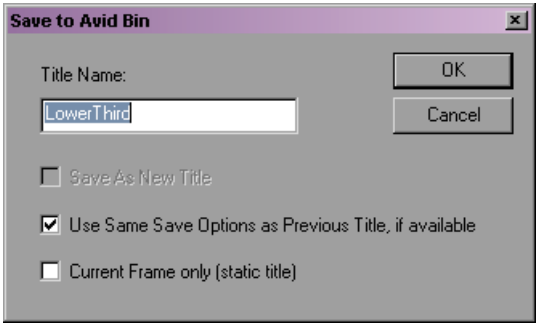
Your lower-third title is finished. You can now save the title directly to the bin in your Avid editing application, creating a title clip that you can edit into your sequence. Title clips saved from Marquee function exactly like those created when you save a title in the Title tool.

To save your title to the editing application bin:

Title tool equivalent: select File > Save Title, and make appropriate selections in the Save Title dialog box. The Marquee method differs only in that you name the title while you are still in Marquee and you click in the editing application to reactivate it and complete the save operation.

1. Select File > Save to Bin.

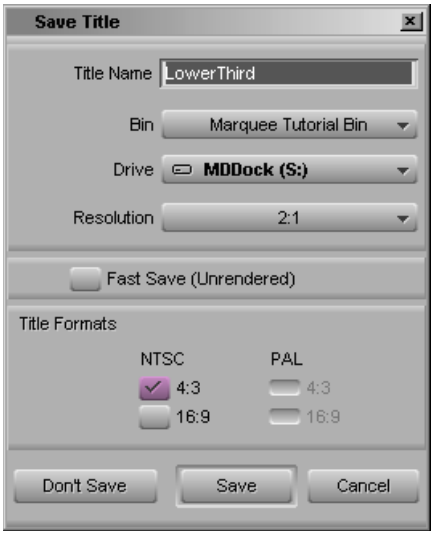
   The Save to Avid Bin dialog box appears.



2. If LowerThird does not appear in the Title Name text box, type **`LowerThird`** in the Title Name text box.
3. Click OK.

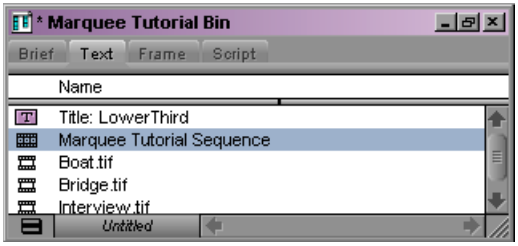
   Marquee briefly displays a Rendering Progress message box while it renders a graphics file that the editing application will use to create the title clip.
4. When the Rendering Progress message box disappears, switch to your Avid editing application.

   The Save Title dialog box is open in the editing application. You can accept all the default settings for this tutorial.



5. Click Save.

   The title clip appears in the bin and loads in the Source monitor.



6. (Option) If you want, you can edit part of the title over the Interview.tif clip to see how the title looks as part of the sequence.

Lesson 2 Summary

In this lesson you have learned:

- The function of the Library window
- How to apply a title template
- How to switch between the Edit and Text tools
- How to change the content of a text object
- How to change the color of a title object
- The function of the Quick Titles Properties window
- How to create a simple drop shadow
- How to save a title to a bin in your Avid editing application

For further experimentation, try the following:

- Select a text object with the Edit tool, and use the first three controls at the left side of the toolbar to alter the text by changing its font, font size, or kerning.

The button immediately to the right of the text boxes in the Font Size and Kerning controls is known as a value shuttle. Move the pointer over the shuttle and drag up or down to increase or decrease the numeric value in the text box. Many of Marquee's property controls include a value shuttle.

- Select one or both of the text objects, and experiment with adjusting the drop shadow. Click the white square in the Shadow tool, and drag to change the depth and direction of the shadow dynamically. Double-click in the Softness text box, type a number (try 20 to start), and then press Enter (Windows) or Return (Macintosh) to soften the shadow.
- Select an object with the Edit tool, and adjust property controls in the Quick Titles Properties window. Notice what effect each change has on the object. To undo any change that you do not like, press Ctrl+Z (Windows) or ⌘+Z (Macintosh).
- Select an object with the Edit tool, and then drag the object to move it within the scene.

For Complete Information On	See
Working with templates	The chapter "Working with Templates" on page 531
Working with text	The chapter "Working with Text" on page 323
Editing objects	The chapter "Creating and Editing Objects" on page 277
Working with shadows	The chapter "Working with Lights and Shadows" on page 497
Modifying basic titles	"Modifying Basic Titles" on page 143
Selecting colors	"Selecting Color Values" on page 205
Saving to a bin in your editing application	"Saving Titles to Your Avid Editing Application" on page 226

Lesson 3: Creating a Basic Rolling Title

This lesson shows you how to create a basic rolling title that you might use for the end credits of a program. As in lesson 2, you will use a template to quickly generate a suitable text object, and then change the text to include a list of job titles and names of the kind you would need for a real program.

The basic methods you will practice in this lesson also apply to the creation of crawling titles.

This lesson contains the following sections:

Because Avid does not supply predefined templates for the Title tool, you cannot create a rolling title from an Avid template in the Title tool as you can in Marquee. Once you have a rolling text object in the Title tool, the general methods for editing it are similar to those for Marquee, although several details are handled differently between the two tools.

Before You Begin

To set up your Avid editing application and Marquee for this lesson:

1. In your editing application, open the Marquee Tutorial project and load the Marquee Tutorial Sequence.
2. In the Timeline, move the position indicator to the Boat.tif clip.
3. Select Clip > New Title, and then click Marquee.
4. In the message box, click No.

   Marquee opens and creates a new title.

Applying a Rolling Title Template

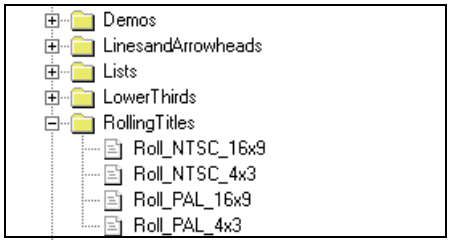
Your first task in this lesson is to apply a rolling title template to your new title. This will create a single text object that you can save to your editing application bin as an Avid Rolling Title. You can edit an Avid Rolling Title to length in your editing application.

To apply a rolling title template:

1. If it is not already open, click the Templates tab in the Library window.
2. If the Avid Templates folder is not already open, click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside the Avid Templates folder.

   You might need to scroll up to see the folder.

3. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside the RollingTitles folder.



The Title tool never attempts to show rolling title text exactly as it will be positioned in the finished title, so the entire text does not disappear from view in any normal circumstances. However, you still need to work with the Text tool in the Title tool to enter or edit rolling title text.

4. Double-click Roll_NTSC_4x3.

   The bounding box for a large text object appears in the viewing area. You cannot see any text because you are viewing the roll at the beginning of its duration, when the top of the roll is just off the bottom of the screen.

5. Click the Text tool.

   The object's bounding box changes to indicate selection with the Text tool. You can now see the default text from the template. You can also see a red scroll bar to the right of the bounding box. As you enter text and your roll lengthens, you can use the scroll bar to view different parts of the roll.

Changing the Content of the Rolling Title

Next you will change the text in your title. The placeholder text in the template consists simply of three lines of text. You will replace this text with a series of two-line groups of text separated by vertical space. You'll also change the font size for the first line of each group.

To create the first text group:

1. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the default text.
2. Type **`Production Designer`** and then press Enter (Windows) or Return (Macintosh).

   The insertion point moves to a new line.
3. Type **`Tina Van Rye`**.
4. Drag across the first line of text (**Production Designer**) to select it.

Title tool equivalent: click the Point Size button and select a standard point size, or type a size in the Point Size text box.

5. Double-click in the Font Size text box in the toolbar, type `30`, and then press Enter (Windows) or Return (Macintosh).

   The first line of text becomes smaller (30 points high), creating a visual distinction between the two lines of text that you can maintain throughout the roll.

6. Click at the end of the second line of text to place the insertion point, and then press Enter (Windows) or Return (Macintosh) three times.

   This ends the second line of text and adds two lines of space.

You now have a block of text and spacer lines that you can copy and paste as many times as necessary until you have enough groups of text to complete your roll.

To create multiple text groups by copying and pasting:

1. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text and space lines.
2. Press Ctrl+C (Windows) or ⌘+C (Macintosh) to copy the selected material.
3. Click in the line below the selected material (at the location of the red insertion point) to set the location in which to paste the copy of the selected material.

In the Title tool, you cannot see the boundaries of the rolling text object while the Text tool is active, so you must take care to paste into the existing text object rather than create a new one. Otherwise, you can copy and paste text in almost exactly the way described here for Marquee.

4. Press Ctrl+V (Windows) or ⌘+V (Macintosh) to paste the selected material.

   A second group of lines appears.

5. Repeat steps 3 and 4 eight more times.

   You now have a rolling title with ten identical two-line groups. The scroll bar to the right of the window has moved down with each additional group of lines you added.

6. Drag the scroll bar up to return to the top of the rolling title.
7. Drag across the first line of the second group to select it.
8. Type **`Lighting`**.
9. Drag across the second line of the second group to select it.

10. Type **`Bruce Williams`**.

11. Repeat steps 7 through 10 eight more times with each of the eight remaining text groups to complete the final text content you need.

    You can add your own job titles and names, or you can use the names and titles in the following list. Drag the scroll bar when necessary to move further down in the rolling title.

    `Visual Effects Supervisor`
    `John Latour`

    `Camera`
    `Matt Matthews`

    `Audio Engineer`
    `Caroline Vane`

    `Editor`
    `Kate Rustler`

    `Script Supervisor`
    `Tessa Antonelli`

    `Casting`
    `Andrew Harris`

    `Director`
    `Steve Boyer`

    `Producer`
    `David Kramer`

Saving the Rolling Title to Your Avid Editing Application

Now that your rolling title has complete text, you can save it. In this case, you will save your title directly to the editing application bin without saving it as an .mqp file.

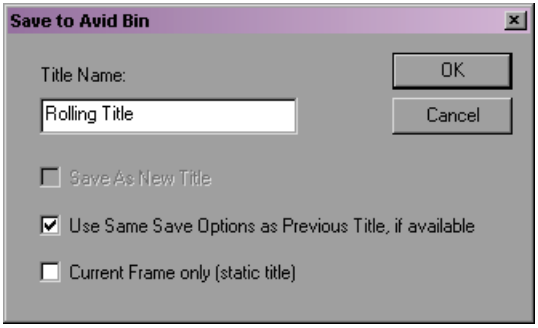
To save the rolling title to the bin:

1. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

2. Type **`Rolling Title`** in the Title Name text box.

3. Make sure that "Use Same Save Options as Previous Title, if available" is selected.



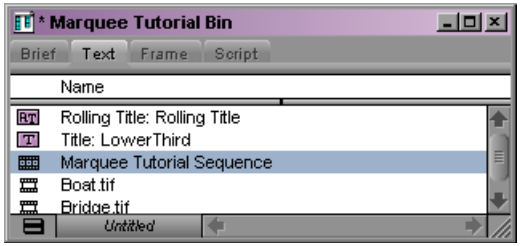
4. Click OK.

   Marquee displays a Rendering Progress message box while it renders the graphics files that the editing application will use to create the title clip.

5. When the Rendering Progress message box disappears, switch to your Avid editing application.

6. In the Save Title dialog box, click Save.

   Your rolling title appears in the bin as an Avid Rolling Title and loads in the Source monitor. Play the clip in the Source monitor to check the movement of the roll.



7. (Option) Edit the rolling title over the full duration of your sequence, and then play the sequence.

If you have edited a title into the sequence for a previous lesson, you will need to delete it.

The rolling title now runs for 30 seconds and moves at an appropriate speed.

Lesson 3 Summary

In this lesson you have learned:

- How to apply a rolling title template
- How to view and scroll a rolling text object
- How to change the content of a rolling text object
- How to create line breaks in text
- How to change the font size of text
- How to copy and paste text

For further experimentation, try the following:

- Create a new title in Marquee, and click the Adjust Roll button. Notice how this button provides an alternative way to quickly create a rolling title. This method differs from applying a template only in that the text object it creates does not contain any placeholder text. You can also use this button to adjust a rolling text object so that it meets the requirements for an Avid Rolling Title.

For Complete Information On	See
Creating rolling and crawling text	"Creating Rolling, Crawling, and Path Text" on page 350
Creating rolling titles that can be saved as Avid Rolling Titles	"Rolling Titles" on page 223
Creating crawling titles that can be saved as Avid Crawling Titles	"Crawling Titles" on page 224
Selecting colors	"Selecting Color Values" on page 205
Saving to a bin in your editing application	"Saving Titles to Your Avid Editing Application" on page 226

Lesson 4: Creating and Customizing a Main Title

This lesson shows you how to create a static main title that you might use for the name of a show during the show's opening. Instead of using a template from the Avid Templates folder as a starting point, you will create all the elements in this title yourself.

This lesson contains the following main sections:

This lesson creates basic title objects that you could also create using the Title tool. In Lesson 5: Creating a 3D Title with Lighting Effects in Chapter 2, you will create a more complex version of this title that uses Marquee capabilities such as lighting and 3D objects that have no equivalent in the Title tool.

Before You Begin

To set up your Avid editing application and Marquee for this lesson:

1. In the editing application, open the Marquee Tutorial project and load the Marquee Tutorial Sequence.
2. In the Timeline, move the position indicator to the Bridge.tif clip.
3. Select Clip > New Title, and then click Marquee.
4. In the message box, click No.

   Marquee opens and creates a new title.

Creating the Text Objects

In this lesson, think of the Bridge.tif clip as the opening shot for a show called "Under the Bridge." You will create the title for this show using three separate text objects, one for each word. This makes it easy to size and position the three words independently and to group them attractively.

To create the text objects:

1. If it is not already selected, click the Text tool in the toolbox on the left of the Monitor window.

Creating multiple text objects is a very similar process in the Title tool. The only difference is that just a single click is needed to make one text object inactive and begin creating another.

2. Click in the area under the bridge in the Monitor window.

   The red bounding box for a new text object appears. At this stage, the precise location of the object is not important. You will adjust its position later.

3. Type **`Under`**.

4. Click away from the word **Under**.

   The bounding box around the word changes to a dotted white line, indicating that this text object is no longer active.

5. Click in the area under the bridge somewhere to the right of the word **Under**.

   The red bounding box for a new text object appears.

6. Type **`the`**.

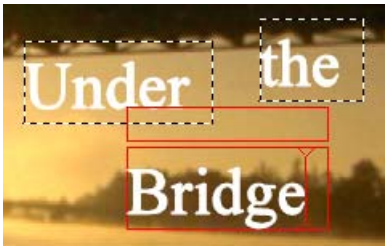
7. Click away from the word **the**.

   Both words you have typed now appear with dotted-line bounding boxes.

8. Click in the area under the bridge somewhere below the two existing words.

   The red bounding box for another new text object appears.

9. Type `Bridge`.



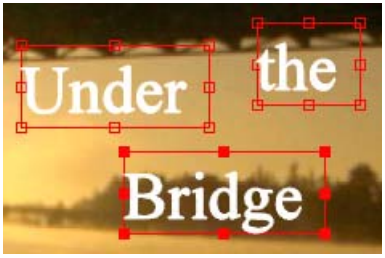
Modifying the Appearance of the Text Objects

Next, you'll make several adjustments that affect all three text objects you have just created. You'll apply a new font to the objects, change their color, add an edge or border around each character, and add a soft drop shadow. In this section of the lesson, you'll also preview a title at its finished quality.

To select new font and color values:

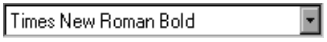
1. Click the Edit tool in the toolbox on the left of the Monitor window.
2. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all three text objects.

   Red bounding boxes with handles appear around all three objects.

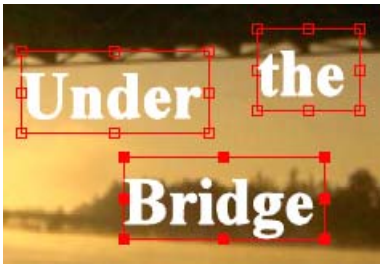


Title tool equivalent: click the Font Selection button, select Times New Roman, and then click the Bold button.

3. Select Times New Roman Bold from the Font list in the Monitor Window toolbar.



All three text objects change to use the Times New Roman Bold font.



Title tool equivalent: click the Fill Color Selection box, and select a color from the Title Tool Color Picker.

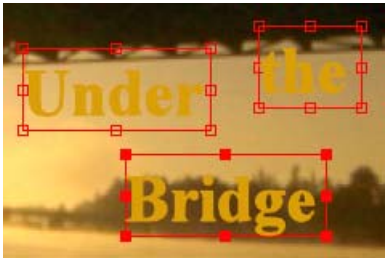
4. Click the button beside the color well in the Monitor window toolbar.

   The Color menu appears.

5. Click one of the 64 common color swatches to select a color.

   For example, select an orange or brown color that is consistent with the color palette of the Bridge.tif background.

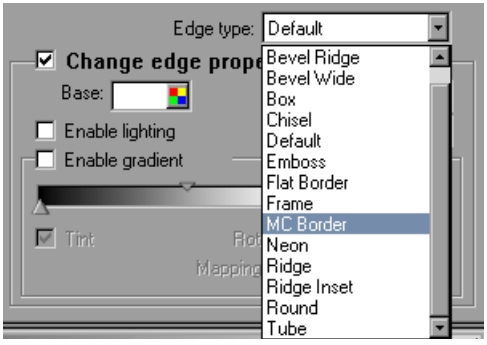
All three text objects change to the color you selected.



To add an edge:

Title tool equivalent: click the Border Width tool, and select the first solid line width selection.

1. In the Edge area of the Quick Titles Properties window, select MC Border from the “Edge type” list.

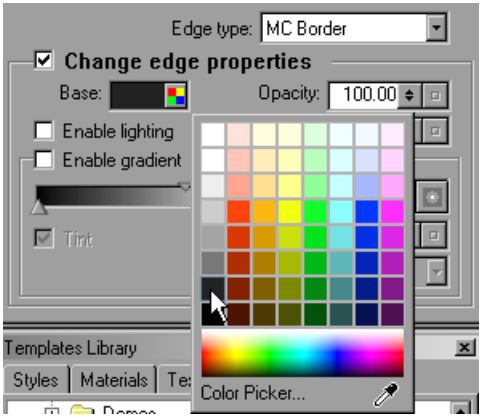


   This adds a basic white border around every character in the text objects. “Change edge properties” is also automatically selected so that the edge is visible on the characters.

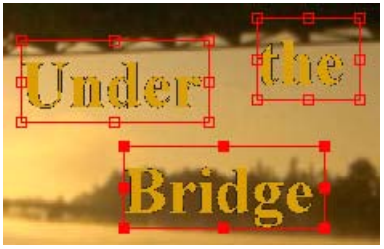
2. In the Edge area, click the button beside the Base color well.

   The Color menu appears.

3. Click one of the black color swatches in the lower left corner of the area of 64 common color swatches.



The border around the text changes to black.



The border around the text characters is not drawn at very high quality in the viewing area of the Monitor window, so it is difficult to tell whether the look of the border is acceptable. You can quickly preview a title at any time to see how it will look at its final quality.

Marquee does not draw objects at their finished quality in the viewing area because high-quality rendering is a resource-intensive process that would interfere with other drawing operations such as redrawing objects as you drag them.

The Title tool uses a similar method for drawing titles as you are working. By default, title objects in the Title tool are drawn with anti-aliasing turned off, so the edges of objects might appear jagged. You use Preview mode to view the title with anti-aliasing turned on (the final quality at which the title will be saved).

In the Title tool, you can work with Preview mode turned on. You can make some changes to title objects without losing the anti-aliased Preview mode quality, while other changes require objects to be drawn without anti-aliasing. In Marquee, you must preview your title as a separate step.

To preview the title:

Title tool equivalent: select Object > Preview.

- Select Render > Preview.

  Marquee briefly displays the Rendering Progress message box as it renders a preview image, and then displays the preview in the Preview window.

You can now see the borders as they will appear in the finished title. They are a little too thin to define the text characters clearly, so you can adjust their width to make them bolder.

To adjust the edge width:

Title tool equivalent: click the Border Width tool, and select a width selection, or select the Custom Width option and then type a width in the Enter New Line Width dialog box.

1. Click the Close button (Windows) or the OK button (Macintosh) in the Preview window.
2. In the Edge area of the Quick Titles Properties window, double-click in the Size text box, type `1.50`, and then press Enter (Windows) or Return (Macintosh).
3. Click in the Monitor window to make it active.
4. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh).

   This is the keyboard shortcut for previewing a title. (The backslash key is above the Enter key on Windows or the Return key on Macintosh.)

   The preview appears in the Preview window, and you can see that the edges on the text characters are now more prominent.
5. Click the Close button (Windows) or the OK button (Macintosh) in the Preview window.

Now complete the modifications to all three text objects by adding a soft drop shadow.

To add a soft drop shadow:

Title tool equivalent: drag the Shadow Depth and Direction button, and type a value in the Shadow Depth text box.

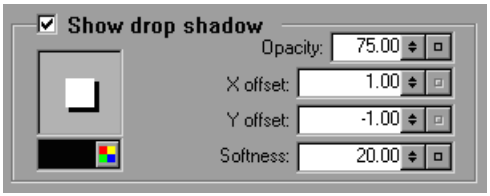
Title tool equivalent: click and hold the Shadow Transparency Level box and drag the slider in the pop-up control.

Title tool equivalent: select Object > Shadow Softness, and type a value in the Shadow Softness text box.

1. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text objects.
2. In the Shadow area of the Quick Title Properties window, select “Show drop shadow.”

   A drop shadow with a standard offset from the text appears on all three objects.
3. In the Shadow area, double-click in the Opacity text box, type `75`, and then press Enter (Windows) or Return (Macintosh).

   The shadows become less transparent.
4. In the Shadow area of the Quick Titles Properties window, double-click in the Softness text box, type `20`, and then press Enter (Windows) or Return (Macintosh).



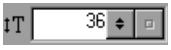
The edges of the shadows become softer.

Resizing and Repositioning the Text Objects

Next you'll make some adjustments to individual text objects to resize and reposition them.

To resize the text objects:

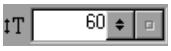
1. Click away from the text objects in the viewing area to deselect them.
2. Click the word **the** to select only that text object.



3. In the toolbar, double-click in the Font Size text box, type `36`, and then press Enter (Windows) or Return (Macintosh).

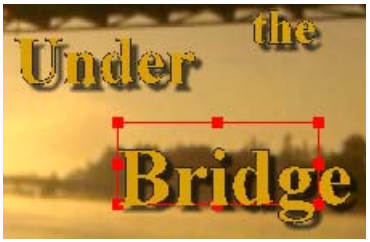
   The font size for the selected text object becomes smaller.

4. Click the word **Bridge** to select only that text object.



5. Double-click in the Font Size text box, type `60`, and then press Enter (Windows) or Return (Macintosh).

   The font size for the selected text object becomes larger.



To reposition the text objects relative to one another:

1. Click the word **the** to select it.
2. Drag the word to a position just above the final two letters of the word **Bridge**.
3. Click the word **Under** to select it.
4. Drag the word to a position just above and overlapping the beginning of the word **Bridge**.
5. (Option) If you need to fine-tune the position of any of the three words, "nudge" the word (move it one pixel at a time) by selecting it and then pressing one of the arrow keys.

   Your three text objects should now be arranged in a manner similar to that shown in the following illustration.

T ➡ M

These techniques exactly parallel those in the Title tool, where you move an object by selecting the Selection tool and dragging the object, and you nudge an object by selecting it and then pressing one of the arrow keys.

6. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all three objects.
7. Select Object > Group to group the three objects.

   A single bounding box appears around all three words. The three text objects are now grouped together and function as a single object.
8. Drag the group of objects until they are approximately centered in the area under the bridge.

T ➡ M

Title tool equivalent: select Object > Group.

Adding a Background Object

Now you'll complete the look of your title by adding a semitransparent rectangle as a background element.

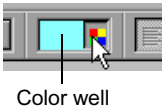
To create the background object:

1. Click away from the grouped text in the Monitor window to deselect it.
2. Click the Rectangle tool in the toolbox on the left of the Monitor window.

Title tool equivalent: click the Square and Rectangle tool, and drag in the main viewing area.

3. Drag from a point above and to the left of the text objects in the Monitor window to a point below and to the right of the text objects, and then release the mouse button.

   A white rectangle appears that covers the text objects.



4. Click the button beside the color well in the toolbar.

   The Color menu appears.

5. Click one of the black color swatches in the lower left corner of the area of 64 common color swatches.

   The rectangle changes to black.

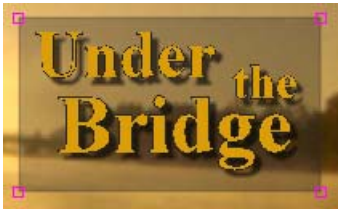
Title tool equivalent: select Object > Send To Back.

6. Select Object > Send to Back.

   The rectangle appears behind the text objects.

7. In the Quick Titles Properties window, double-click in the "Master opacity" text box, type `40`, and then press Enter (Windows) or Return (Macintosh) to change the opacity level of the rectangle.

   The rectangle appears partially transparent.



8. (Option) If necessary, adjust the rectangle by clicking the Edit tool and then dragging the rectangle or its bounding box handles until you are satisfied with its size and position.

Saving the Main Title to Your Avid Editing Application

Your main title is now complete, and you can save it to the bin in your Avid editing application.

To save the main title to the bin:

1. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

2. Type **`Main Title`** in the Title Name text box.

3. Make sure that "Use Same Save Options as Previous Title, if available" is selected.

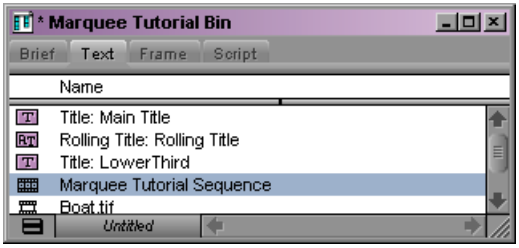
4. Click OK.

   Marquee displays a Rendering Progress message box while it renders the graphics file that the editing application will use to create the title clip.

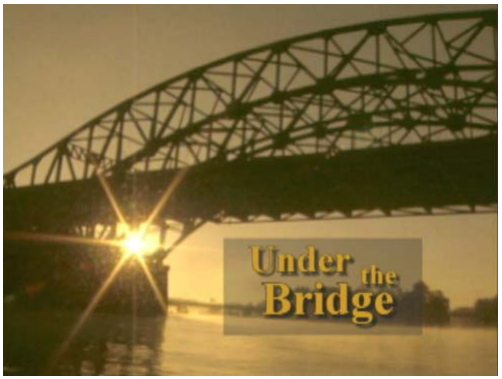
5. When the Rendering Progress message box disappears, switch to your Avid editing application.

6. In the Save Title dialog box, click Save.

   Your title appears in the bin and loads in the Source monitor.



7. (Option) Edit the title over the Bridge.tif clip in your sequence to see its final appearance against the background.



Lesson 4 Summary

In this lesson you have learned:

- How to create new text and graphics objects
- How to change fonts and font sizes
- How to add an edge or border to an object
- How to add a soft drop shadow to an object
- How to modify the opacity of objects and shadows
- How to move objects by dragging and by nudging using the arrow keys
- How to select multiple objects and group objects together
- How to preview a title

For further experimentation, try the following:

- Select the background rectangle, and select “Enable gradient” in the Main Surface area of the Quick Titles Properties window to create a color gradient on the surface of the rectangle. Experiment with the gradient controls that are now enabled in the Main Surface area of the Quick Titles Properties window. For detailed instructions on using the gradient controls, see “Working with Gradients” on page 468.

For Complete Information On	See
Working with text objects	The chapter "Working with Text" on page 323
Working with graphics objects	The chapter "Working with Graphics" on page 361
Creating edge effects	"Creating Edge Effects" on page 487
Creating shadows	"Adding Shadows to Objects" on page 509
Modifying opacity levels for an object	"Changing the Visibility of Objects" on page 295
Moving objects	"Moving Objects Within the Scene" on page 282
Selecting and grouping objects	"Selecting and Deselecting Objects" on page 280 and "Grouping and Ungrouping Objects" on page 294
Previewing titles	"Previewing Title Frames on Screen" on page 568

Chapter 2

Tutorial II: Introduction to Advanced Marquee Techniques

This chapter is the second of two tutorial chapters that give you a hands-on introduction to Marquee. The lessons in this chapter get you started with Marquee's more advanced features. You will create three-dimensional objects, work with lighting effects, and create animated titles that move or otherwise change their appearance over time.

Each lesson does the following:

- Defines the goals of the lesson
- Provides step-by-step instructions and supporting information
- Summarizes what you have learned, offering suggestions for further practice, and providing references to additional information elsewhere in this guide

This chapter features some of the wealth of Marquee capabilities that have no equivalent in the classic Avid Title tool. These capabilities will allow you to produce titles that are far more sophisticated than any previously possible in an Avid editing application. Where steps in this chapter's lessons do have Title tool equivalents, those equivalents are noted where you see the Title tool to Marquee icon (shown in the margin beside this paragraph).

This chapter contains the following main sections:

Lesson 5: Creating a 3D Title with Lighting Effects

This lesson shows you how to create a main title similar to the one you created in Lesson 4 in Chapter 1. In this version, however, you will use Marquee's 3D and lighting capabilities to achieve a more sophisticated look.

This lesson includes the following sections:

Before You Begin

You will begin this lesson by opening an .mqp file that contains a group of text objects similar to those you created in Lesson 4.

To set up your Avid editing application and Marquee for this lesson:

1. In the editing application, open the Marquee Tutorial project and load the Marquee Tutorial Sequence.
2. In the Timeline, move the position indicator to the Boat.tif clip.
3. Select Clip > New Title, and then click Marquee.
4. In the message box, click No.

   Marquee opens and creates a new title. In this case, you want to load an existing .mqp file, so you need to close this new title and open the existing one.

5. Select File > Close.

   The newly created title closes, and the entire viewing area changes to gray, indicating that there is no title open.

6. Select File > Open (Windows) or File > Open Marquee Title (Macintosh).

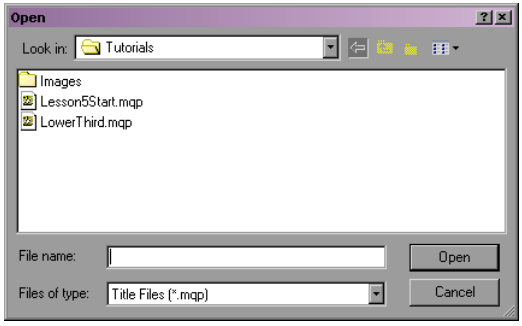
   The Open dialog box (Windows) or the Open Marquee Title dialog box (Macintosh) appears.

7. Navigate to the following location:

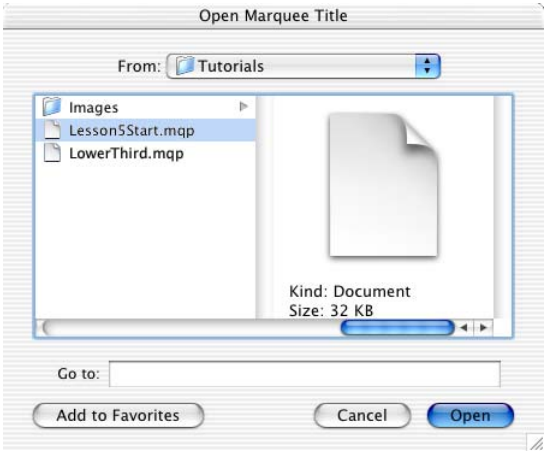
   (Windows)
   drive letter:\Program Files\Avid*Editing Application*\marquee\Tutorials

The location of the Tutorials folder on your system might be slightly different if you did not use the default installation path when you installed your Avid editing application.

   (Macintosh)
   drive name/Applications/*Editing Application*/Marquee/Tutorials



Windows



Macintosh

8. Double-click the Lesson5Start.mqp file.

   The title opens in the Monitor window. You see three text objects, similar to those you created in Lesson 4.

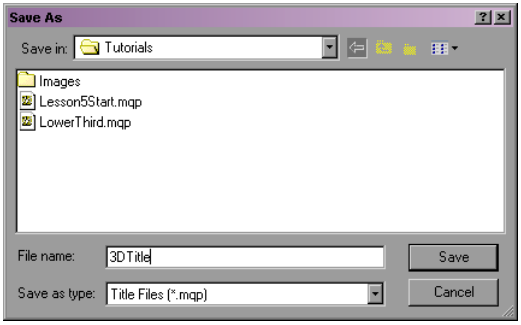
You need to save this title with a new name so that the changes you make to it do not affect the Lesson5Start.mqp file. Lesson5Start.mqp will remain available as a starting point if you want to repeat this lesson or another user wants to follow it.

To save the title as a new .mqp file:

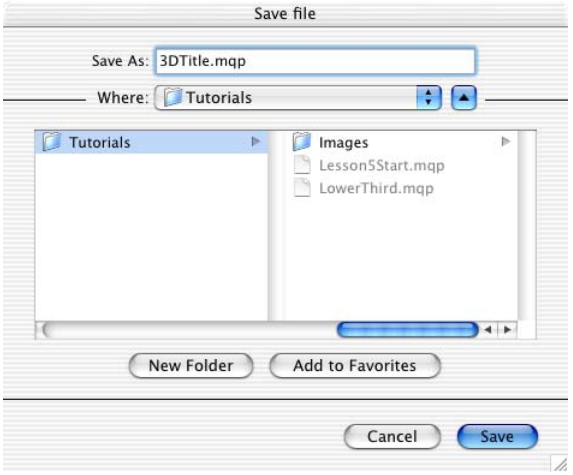
1. Select File > Save As.

   The Save As dialog box (Windows) or "Save file" dialog box (Macintosh) appears.

2. Type `3DTitle` in the "File name" text box (Windows) or Save As text box (Macintosh), and then click Save.



Windows



Macintosh

Creating a Background Rectangle

You'll start your titling work for this lesson by creating a new rectangle object. Using lighting and an Edge effect, you'll achieve a three-dimensional look for the object.

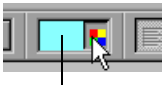
To create the rectangle:

1. Click the Rectangle tool in the toolbox on the left of the Monitor window.
2. Drag from a point above and to the left of the text objects in the Monitor window to a point below and to the right of the text objects, and then release the mouse button.

   A white rectangle appears that covers the text objects.

To modify the appearance of the rectangle:

1. Click the Edit tool in the toolbox on the left of the Monitor window.

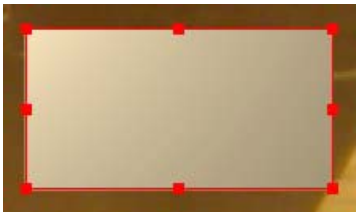


2. Click the button beside the color well in the toolbar.

   The Color menu appears.
3. Click one of the color swatches to change the color of the rectangle.

   For example, click a lighter shade of orange than that used for the text. In the illustrations here, the chosen color is the second swatch from the top in the column of orange swatches.

4. In the Main Surface area of the Quick Titles Properties window, select "Enable lighting."



The appearance of the rectangle changes so that it appears to be lit by a light source that is above it and to its left. (You'll learn how to view and modify this light source later in the lesson.) The rectangle appears lighter in the top left corner and darker in the bottom right corner.

Title tool equivalent: click the Box Corner tool on the Title Tool toolbar, and select a rounding option.

5. Select Object > Set Corner Radius > 10.

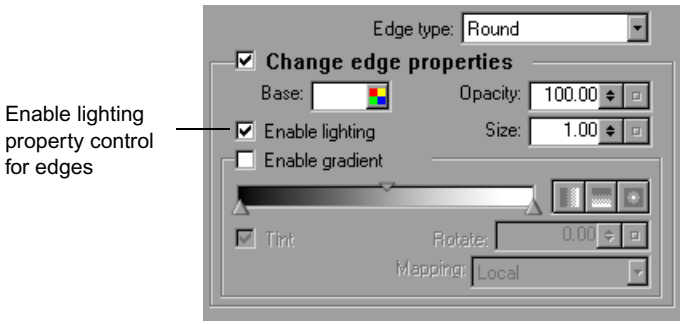
   The corners are now slightly rounded.

6. (Option) To view the rounded corners, click away from the rectangle to deselect it, and then click it to select it again.

7. In the Edge area of the Quick Titles Properties window, select Round from the "Edge type" list.

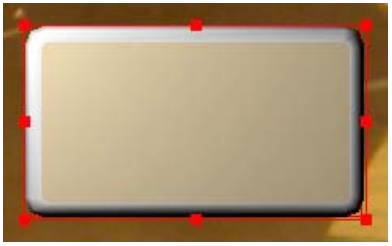
   "Change edge properties" is automatically selected in the Edge area, and an edge, currently the default white color, appears around the rectangle.

8. In the Edge area, select “Enable lighting.”



Enable lighting property control for edges

The rectangle now has a rounded and lit edge and appears to have some thickness. You will enhance the appearance of depth later in the lesson by rotating your title objects.



9. In the Edge area, click the button beside the Base color well.

   The Color menu appears.

10. Click one of the color swatches to change the color of the edge.

    Using the same shade of orange that you used for the main surface of the rectangle results in a uniform surface appearance for the object. If you want the edge to be more distinct from the main surface, you can select a different color.

11. Select Object > Send to Back.

    The rectangle now appears behind the text objects.

12. In the Shadow area of the Quick Titles Properties window, select “Show drop shadow.”

13. In the Shadow area, double-click in the Softness text box, type **25**, and then press Enter (Windows) or Return (Macintosh).

14. Click in the Monitor window to make it active.
15. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh) to preview the title.

Modifying the Text Objects

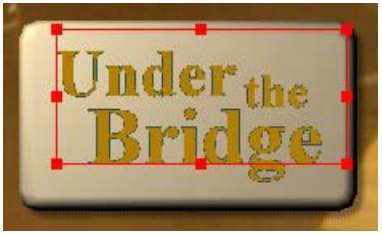
At this stage, the title looks inconsistent. The rectangle is lit but the text objects are not. Also, the text objects appear flat and lack visual interest when compared to their background. You'll now modify the text objects so that they have some depth and are lit.

To modify the text objects:

1. Click the Close button (Windows) or the OK button (Macintosh) in the Preview window.
2. Click the Edit tool in the toolbox on the left of the Monitor window.

3. Click the text objects to select them.

   The text objects are currently grouped together so you can easily select and modify them.



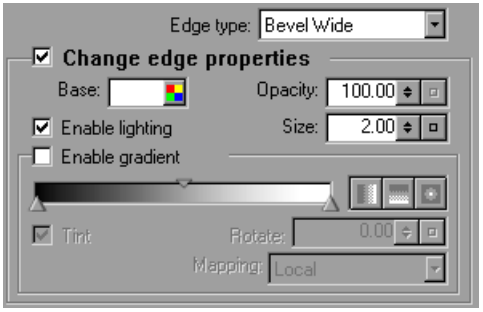
4. In the Main Surface area of the Quick Titles Properties window, select "Enable lighting."

   The text objects are now lit by the same light source as the rectangle behind them.

5. In the Edge area of the Quick Titles Properties window, select Bevel Wide from the "Edge type" list.

6. In the Edge area, double-click in the Size text box, type **2**, and then press Enter (Windows) or Return (Macintosh).

7. In the Edge area, select "Enable lighting."



8. Click in the Monitor window.

9. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh) to preview the title.

   The text now appears to be raised from the surface of the background rectangle.

Repositioning and Scaling the Title Objects

Next, you will finalize the position and size of the title objects.

To position the text objects with respect to the rectangle:

1. Click the Close button (Windows) or the OK button (Macintosh) in the Preview window.
2. (Option) If necessary, do one or more of the following to position the group of text objects so that it is centered within the area of the rectangle:
   - Drag the group of text objects.
   - "Nudge" the group (move it one pixel at a time) by pressing one of the arrow keys.

To scale the title objects:

1. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the objects.
2. Select Object > Group to group the objects.

3. Move the pointer over the top left corner bounding-box handle.

   The pointer changes to an upward-pointing arrow.

4. Press and hold the Shift and Alt keys (Windows) or the Shift and Option keys (Macintosh), and drag the top left corner bounding-box handle up and to the left.

   As you drag, all the objects increase in size. Pressing and holding the Shift and Alt keys (Windows) or the Shift and Option keys (Macintosh) preserves the original aspect ratio of the objects as you drag, maintaining their proportions and avoiding any distortion of the text.

Do not make the objects too large; it will be difficult to light them correctly, and they will visually overwhelm the background video. The following illustration shows a good final size.

5. When you are satisfied with the size of the objects, release the mouse button.

Rotating the Title Objects

Now you'll enhance the three-dimensional quality of your title by rotating all the title objects together around their vertical (Y) axis. This will adjust the position of the group of objects in three-dimensional space, moving one side away from you and the other side toward you.

To rotate the title objects as a group:

1. Make sure that the grouped title objects are still selected (have a red bounding box with bounding-box handles).
2. 
Click the Rotate tool in the toolbox on the left of the Monitor window.

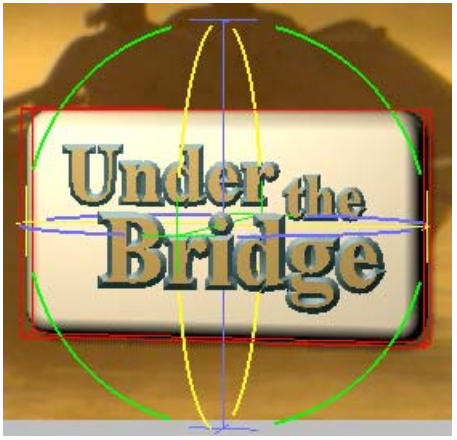
   A rotation sphere appears around the group of objects.

3. Move the pointer over the front part of the blue rotation circle until the pointer changes to a set of direction arrows, as shown in the following illustration.

4. Drag the circle a little to the left.

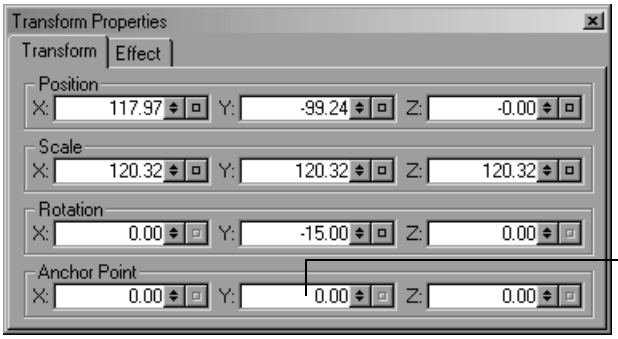
   As you drag, all the title objects rotate around their vertical axis. The left side of the objects moves away from you, while the right edge moves toward you.

5. When the objects are positioned approximately as shown in the following illustration, release the mouse button.



   Check the Y Rotation text box in the Transform Properties window located at the bottom of the screen. The value has changed from its default of 0 to a value of approximately –15, representing a clockwise rotation of approximately 15 degrees about the objects' Y axis. (You can also rotate objects by changing the values directly in the Rotation text boxes.)

The following illustration shows the Transform Properties window with typical values for this point in the lesson. Your Position and Scale values might be different as a result of your resizing and repositioning of the objects.



6. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh) to preview \the title again.

   The angle at which you are viewing the objects and the angle at which light is falling on them have now changed. The objects all appear brighter, and the rounded edge of the rectangle is clearer on all sides.

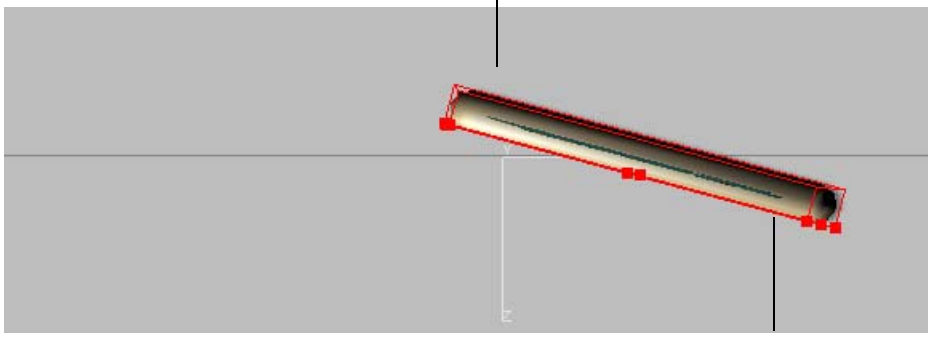
Viewing the Title Objects from the Top

Next, you'll change your view of your title so that you are looking down on the objects from the top. This will allow you to see more clearly how the rotation of the objects has changed their orientation in three-dimensional space. When you are working in three dimensions, it is often useful to change the position from which you are viewing your work. If you need to, you can also view a title from several other viewpoints.

To view the title objects from the top:

1. Click the Close button (Windows) or OK button (Macintosh) in the Preview window.
2. 
Click the Edit tool in the toolbox on the left of the Monitor window.
3. Select View > Views > Layer Top.

   The viewing area changes to show the title objects as if you were looking down on them from above, as shown in the following illustration.



The Layer Top view is the equivalent of viewing the action on a theater stage from above the actors rather than from a normal seat in the theater.

The horizontal line running across this view represents the plane of the scene. You can see how the left side of the group of objects is further back than this plane, while the right side is further forward. This view also allows you to see the thickness of your title objects very clearly.

To return to the normal view of your title (known as Scene view):

- Press Ctrl+5 (Windows) or Option+5 (Macintosh) on the numeric keypad.

  This is the keyboard shortcut for returning to the normal view.

  (Windows only) If you have turned off Num Lock on your keyboard, you will need to press the Num Lock key before this shortcut will work.

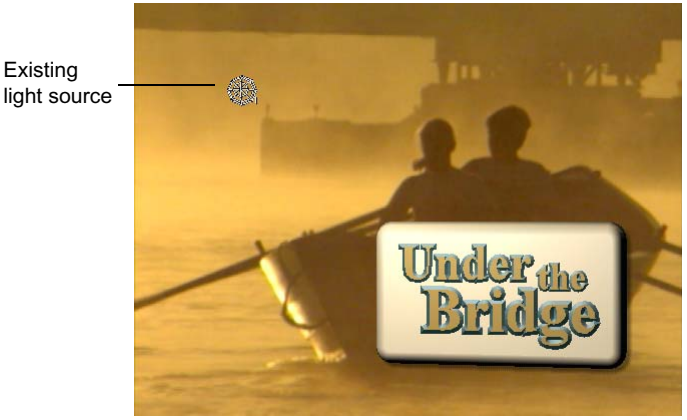
Modifying Light Effects

Now you'll view and modify the light sources for your title. You'll see where the default light source that is currently lighting your objects is located, change the color of that light, and create a second light source to enhance the lighting effects for the title.

To view the current light source:

- Click the Light tool in the toolbox on the left of the Monitor window.

  A light object (named "1") appears in the viewing area of the Monitor window. This is the source of the light that is currently lighting your objects.



The position of this light does not need to be modified. (You could change its position simply by dragging it, and the appearance of the title objects would update to reflect the change.) However, the default white color of the light might be considered too harsh for the golden tones of the background video, so you'll change the color of the light.

To change the color of the light:

1. Click the light object to select it.

   The light object appears filled.

2. Select Window > Properties > Light.

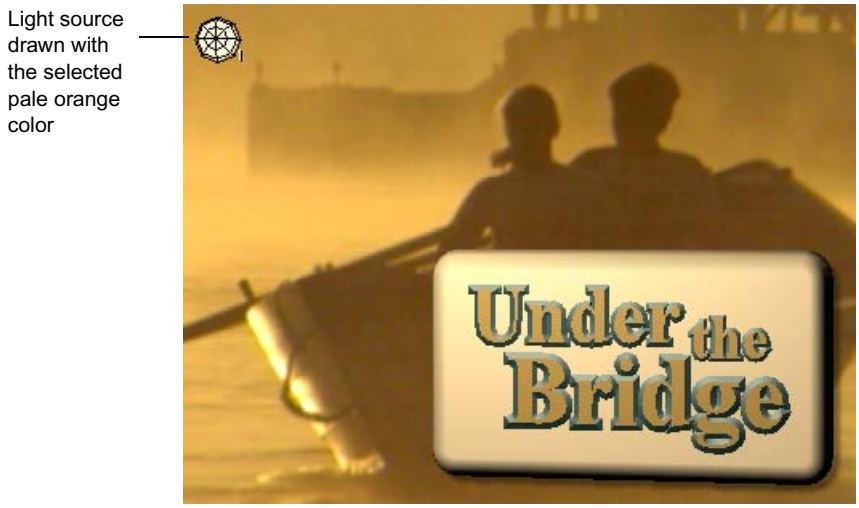
   The Light Properties window opens. This window contains controls for adjusting light sources.

3. In the Light Properties window, click the button beside the “Light color” color well.

   The Color menu appears.

4. Click the palest orange swatch at the top of the color swatches.

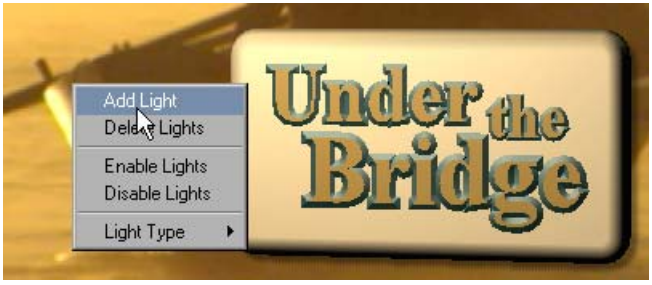
   The color well, the color used to draw the light object, and the title objects all update dynamically to use the light color that you have chosen.



Next, you'll create a new light source to add to the title. The new light source will be a spot light that shines a focused light on a relatively small area of the scene.

To create and target a spot light:

1. Right-click (Windows) or Ctrl+click (Macintosh) a little to the left of the title objects, and select Add Light.



   A new light appears at the location where you right-clicked. The light's initial color is the color that you selected in the "Light color" color well in the previous procedure. At present, the new light, which is very close to the objects, makes the objects look much brighter.

2. Click the new light to select it.

3. Right-click (Windows) or Ctrl+click (Macintosh) the light, and select Light Type > Spot.

   The light source changes its appearance. The light source now has a cone that indicates the spread of the light, and a target dot that indicates the point at which the light is aimed.

4. Move the pointer over the target dot.

   The pointer changes to an upward-pointing arrow.

5. Drag the target dot until it is pointing at the dot over the **i** in the word **Bridge**.

   The scene updates as you drag to show the effect of the spot light.

6. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh) to preview the title.

The spot light highlights the title effectively, but the color of the light is too bright and tends to bleach out detail. You'll now select a different color for the light, using the eyedropper to pick a color from the background image.

To change the color of the spot light:

1. Click the Close button (Windows) or OK button (Macintosh) in the Preview window.
2. In the Light Properties window, click the button beside the "Light color" color well.

   The Color menu appears.
3. (Windows only) Do the following:
   a. Click and hold the mouse button over the eyedropper.

      The pointer changes to an eyedropper.
   b. While pressing and holding the mouse button, drag the eyedropper into the viewing area of the Monitor window and over one of the medium-brown areas of the background video, such as the water immediately below the boat.

The eyedropper "picks up" whatever color is beneath it on the screen. The color well, the color used to draw the light object, and the title objects all update dynamically to use the color that the eyedropper is currently over.

c. When you are satisfied with the color of the light, release the mouse button.

4. (Macintosh only) Do the following:

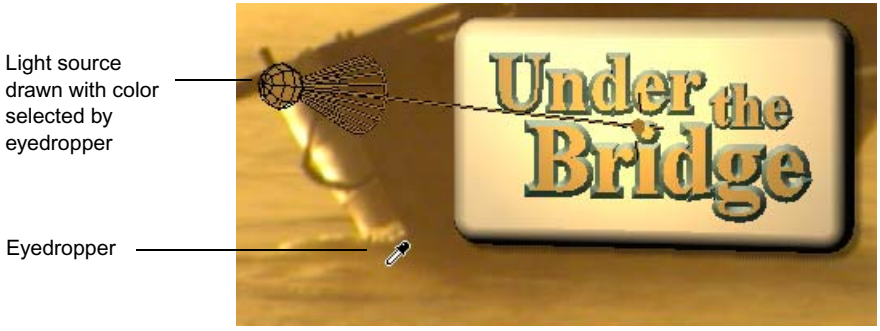
   a. Click the eyedropper in the Color menu.

   b. Move the eyedropper pointer into the viewing area of the Monitor window and over one of the medium-brown areas of the background video, such as the water immediately below the boat.

      The color well updates dynamically as you move the eyedropper pointer to show the color currently under the pointer.

   c. When the eyedropper pointer is over a color with which you are satisfied, click to select the color.

      The color well, the color used to draw the light object, and the title objects all update to use the color that you have selected.



5. Click in the viewing area to make the Monitor window active.
6. Press Ctrl+\ (backslash) (Windows) or ⌘+\ (backslash) (Macintosh) to preview the title.

   Your title should now look similar to the following illustration.

7. Click the Close button (Windows) or OK button (Macintosh) in the Preview window.

Your title is now finished, so you can save it to the bin in your Avid editing application.

Saving the 3D Title to Your Avid Editing Application

To save the title to the bin in your Avid editing application:

1. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

2. If "3DTitle" does not appear in the Title Name text box, type **`3DTitle`** in the Title Name text box.

3. Make sure that "Use Same Save Options as Previous Title, if available" is selected.

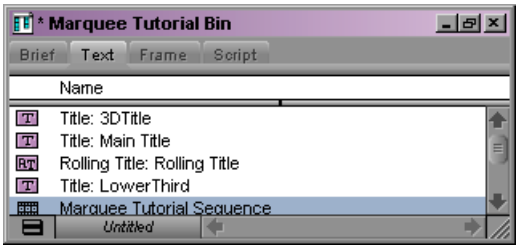
4. Click OK.

   Marquee displays a Rendering Progress message box while it renders the graphics file that the editing application will use to create the title clip.

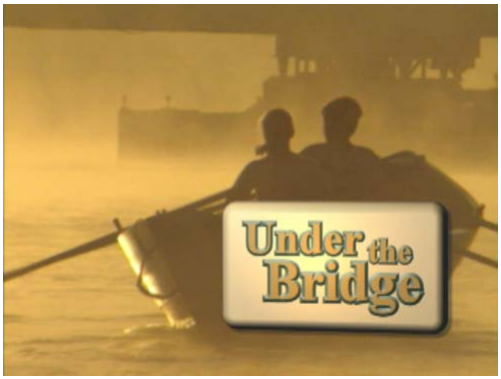
5. When the Rendering Progress message box disappears, switch to your Avid editing application.

6. In the Save Title dialog box, click Save.

   Your title appears in the bin and loads in the Source monitor.



7. (Option) Edit the title over the Boat.tif clip in your sequence to see its final appearance against the background.



Lesson 5 Summary

In this lesson you have learned:

- How to create Edge effects that give depth to title objects
- How to round the corners of a rectangle
- How to resize title objects while maintaining their proportions
- How to rotate objects in three-dimensional space
- How to view a title from above
- How to enable lighting for title objects
- How to view light sources and change their color
- How to create and target a spot light source

For further experimentation, try the following:

- Select one of your title objects (the background rectangle is the simplest example), and change the “Extrude depth” property value in the Effect Properties window by dragging the value shuttle up. As you increase the value, the object becomes increasingly stretched out in its third dimension — that is, it becomes thicker and thicker. You can use this extrusion technique to create three-dimensional objects with greater depth than you can achieve with Edge effects alone. You can, for example, turn squares into cubes and circles into cylinders. You can gain fuller control over the Extrude surface by using controls in the Surfaces Properties window. For more information, see “Extruding Objects” on page 492 and the chapter “Working with Surfaces and Materials” on page 451.
- Experiment with more controls in the Light Properties window. For example, click the Light tool, select the spot light that you created in the lesson, and then change the “Spot size” and “Spot falloff” values. These properties modify the area that the light affects and the softness of the edges of that area.

For Complete Information On	See
Creating Edge effects	“Creating Edge Effects” on page 487
Rounding the corners of a rectangle	“Rounding Corners of Squares and Rectangles” on page 363
Scaling objects	“Scaling Objects” on page 296
Rotating objects	“Rotating Objects” on page 300
Viewing titles from different angles	“Viewing the Scene from Different Angles” on page 260
Working with lights	The chapter “Working with Lights and Shadows” on page 497

Lesson 6: Creating a Title with Animated Text

In this lesson, you will create a text object and then animate the object so that its appearance changes over time. The text object will fade in, be briefly highlighted with a glow, and eventually fade out. It will also move slowly across the scene and appear to expand as its kerning value (the amount of space between characters in the text) increases over time. The result will be a "floating" text object similar to those common in advertising spots.

Once you have one object animated, you'll save all your adjustments to that object as a style, quickly apply the style to a second text object, and then modify the second object so that its behavior remains similar to the first but exhibits some differences.

This lesson introduces you to the Animation Mode button and to the Timeline window, which are the main tools that you use when animating titles.

This lesson includes the following sections:

Before You Begin

To set up your Avid editing application and Marquee for this lesson:

1. In the editing application, open the Marquee Tutorial project and load the Marquee Tutorial Sequence.
2. In the Timeline, move the position indicator to the Boat.tif clip.

3. Select Clip > New Title, and then click Marquee.
4. In the message box, click No.

   Marquee opens and creates a new title.

Creating the First Text Object

For this lesson, imagine that the images in your sequence will form part of an advertisement for a company that makes boats like the one you see in the Boat.tif clip. A voice-over will stress key qualities of the company, such as craftsmanship and ingenuity, and the moving text on screen will reinforce that message.

To create the first text object:

1. Select Arial Bold from the Font list in the Monitor window toolbar.

2. Click the Text tool in the toolbox on the left of the Monitor window.
3. Click in the Monitor window toward the top left of the background image.
4. Type **`craftsmanship`**.

5. Click the Edit tool in the toolbox on the left of the Monitor window.
6. If necessary, drag the text object so that it is positioned exactly where you would like it to appear at the beginning of the title.

Animating the First Text Object

Next, you will animate the text object. You'll do this in several distinct stages, adding one kind of move or change in each stage and playing the title to check your work after each stage.

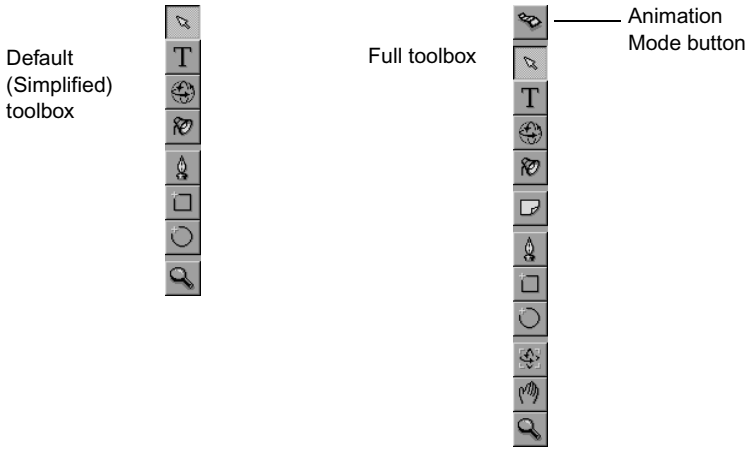
To do this, you need to work in Animation mode. In Animation mode, the changes you make to the properties of objects are tied to the specific point in time at which you make the change. This idea will become clear as you work through the stages in this part of the lesson.

Entering Animation Mode

To enter Animation mode:

1. Select View > Toolbox > Full.

   The toolbox on the left of the Monitor window expands to show more buttons.

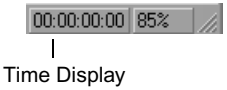


2. Click the Animation Mode button at the top of the toolbox.

   The button changes to red, indicating that Marquee is in Animation mode.

Moving the Object Across the Scene

Next, create the basic movement of the object from left to right across the scene.



This is the first of several stages to the lesson that involve moving through time in the title. In the Monitor window, you do this by clicking the Time Display button in the status bar, and then dragging either to the left or to the right. The Time Display button displays the current position in time within the title: currently, it displays 00:00:00:00.

To move the object across the scene:

1. Click the Time Display button and drag to the right until the Time display reaches its end value, 00:00:04:29.

   00:00:04:29 is the last frame in the title, which has a default duration of 5 seconds. You'll learn how to change this duration, and what happens when you do, later in the lesson.

2. Release the mouse button.
3. Shift+drag the object to the right until it is located where you would like it to end its movement, and then release the mouse button.

   You are aiming for a slow, floating effect, so you should not move the object too far to the right. Pressing and holding the Shift key while you drag constrains the object's movement in the direction in which you start dragging — in this case, horizontally.

   By dragging the object, you are setting the position you want the object to occupy at the end of the 5-second animated title.

4. Click the Time Display button and drag to the left until the Time display reaches its initial value of 00:00:00:00 again.

   As you drag, you'll see that the object moves back from the position you just set to its original position.

5. Press the space bar.

   The title now plays forward in time. You'll see the text moving from left to right, and the Time display changing as the title plays. Playback stops when the end of the title is reached.

00:00:00:00

00:00:02:15

00:00:04:29

This simple movement illustrates the basic method of all Marquee animation. You have set a starting position (the original location at 00:00:00:00) and an ending position (the new location at 00:00:04:29). Marquee uses these two values to interpolate the movement of the object during the 5 seconds between the beginning and the end. At 00:00:02:15, for example, the object will be halfway between the starting and ending points.

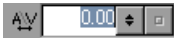
You can add more positions for specific points in time, and Marquee will interpolate from one point to the next. For example, if you move the time to 00:00:02:15 and then position the object at the very bottom of the scene, it will move down to that position during the first 02:15, and then back up to the ending position during the second 02:15.

Animating Kerning for the Text

Now you'll change the kerning value for the text object at the end of the title. The next time you play the title, not only will it move across the screen, but it will also expand a little as the space between characters increases over time.

You are already in Animation mode, have the object selected, and are at the point for setting the end value. All you need to do is change the Kerning value and then play your title to see the result.

To animate the kerning and play the title:



1. Double-click in the Kerning text box in the toolbar, type `0.7`, and press Enter (Windows) or Return (Macintosh).

   The characters in the object appear with more space between one and the next.

2. Press the Home key.

   This is the keyboard shortcut for jumping to the beginning of a title.

   You'll now see the text object in its starting position and with its orginal default spacing between characters. Because you are in Animation mode, the change you made in step 1 applies only to the end of the title.

3. Press the space bar.

   The title plays again. This time, it both moves across the scene and expands as it moves.

00:00:00:00 00:00:02:15 00:00:04:29

Fading the Object In and Out

Next you'll fade the object in at the beginning of the title and out at the end by animating the Master Opacity property value for the object.

To fade the object in and out:

1. Press the Home key to return to the beginning of the title.
2. In the Quick Titles Properties window, double-click in the "Master opacity" text box, type `0`, and then press Enter (Windows) or Return (Macintosh).

   The text of the object disappears.

3. Ctrl+click the Time Display button at the bottom of the Monitor window and drag to the right until the Time display reads 00:00:00:20.

   Pressing the Ctrl key while you drag gives you more precise control of movement in time, making it easier to move an exact number of frames.
4. Double-click in the "Master opacity" text box, type `100`, and then press Enter (Windows) or Return (Macintosh).

   The text of the object reappears at full opacity.
5. Ctrl+click the Time Display button at the bottom of the Monitor window and drag to the right until the Time display reads 00:00:04:09.

6. Double-click in the “Master opacity” text box, type `100`, and then press Enter (Windows) or Return (Macintosh).

You need to enter this value again, even though it already appears in the text box, to tell Marquee when you want the period of 100% opacity to end.

7. Click the text object in the viewing area to make the Monitor window active and keep the object selected.
8. Press the End key.

   This is the keyboard shortcut for jumping to the end of a title.
9. Double-click in the “Master opacity” text box, type `0`, and then press Enter (Windows) or Return (Macintosh).
10. Click the text object in the Monitor window to make the Monitor window active while keeping the object selected.
11. Press the Home key, and then press the space bar.

    The title plays again. The text now fades in at the beginning and out at the end.

00:00:00:00

00:00:02:15

00:00:04:29

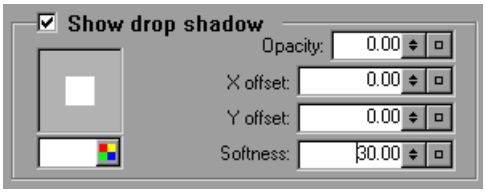
Animating a Glowing Highlight for the Object

As a final touch to your animation, you’ll use the shadow controls to create a glow around the text that shines briefly to highlight the text and then fades out.

To animate a glowing highlight:

1. Press the Home key.
2. Ctrl+click the Time Display button and drag until the Time display reads 00:00:00:20.

3. Adjust controls in the Shadow area of the Quick Titles Properties window as follows:
   a. Select “Show drop shadow.”
   b. Click the button beside the color well, and click a white color swatch in the Color menu.
   c. Double-click in the Opacity text box and type `0`.
   d. Double-click in the X Offset text box and type `0`.
   e. Double-click in the Y Offset text box and type `0`.
   f. Double-click in the Softness text box and type `30`.



   Since you are setting the Opacity to 0, you will see no change to the text in the Monitor window at this stage. However, you need to set these values at this point to place the start of the glow animation where you want.
4. Ctrl+click the Time Display button and drag until the Time display reads 00:00:01:05.
5. In the Shadow area, double-click the Opacity text box and type `100`.

   The text appears with a white glow around it.

6. Ctrl+click the Time Display button and drag until the Time display reads 00:00:01:20.
7. In the Shadow area, double-click the Opacity text box and type `0`.
8. Click the text object in the Monitor window to make the Monitor window active while keeping the object selected.

9. Press the Home key, and then press the space bar.

   The title plays again. The text now flashes with the glowing highlight near the beginning of the title. The following illustration shows the glow highlight part of the animation.

00:00:00:20 00:00:01:05 00:00:01:20

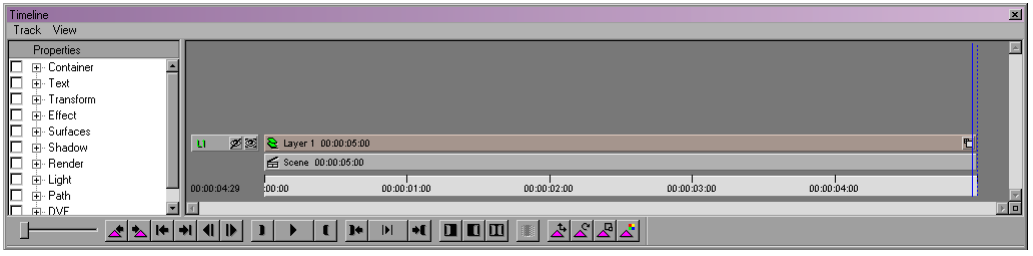
At present, the glow effect is probably too brief to be effective. You'll adjust that part of the animation in the Timeline window.

Opening the Timeline Window

For the rest of the lesson, you'll need to view your title in the Timeline window.

To open the Timeline window and view your text object:

1. Press Ctrl+T (Windows) or ⌘+T (Macintosh).

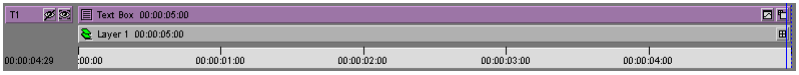


The Timeline window opens, giving you a linear view of how your objects exist over time in your title. Each object has its own track in the Timeline. The Timeline and its object tracks are similar in many ways to the Timeline and its video and audio tracks in your Avid editing application.

2. Click the Expand button at the right end of the L1 (Layer 1) track.

A layer is a top-level container for other objects in your title. For many titling tasks, including this title, you only need one layer, but you can create additional layers to help you organize very complex titles.

A new object track, Text Box, appears. This is the track that represents the text object you have already animated. The track is purple, indicating that the object is currently selected.



Adjusting the Glow Animation in the Property Curve Graph

You'll improve the look of the glow animation by making adjustments in the property curve graph for the text object. In the property curve graph, you can display information about the changes to an object's properties over time and modify those changes.

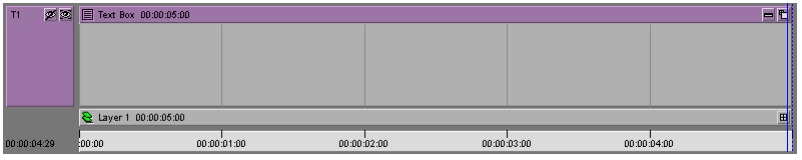
Currently, the glow effect is only 100% opaque for a single frame. This, combined with the short overall duration of the glow animation, means that it is hardly noticeable to the viewer. You need to display the information for the Shadow Opacity property in the Timeline, and then modify that information so that the glow remains at full opacity longer.

To view the Shadow Opacity property curve:

Show Curves button 

1. Click the Show Curves button at the right side of the Text Box object track.

   The property curve graph for the object expands below the object's track. It is currently empty because you have not selected any properties to display.

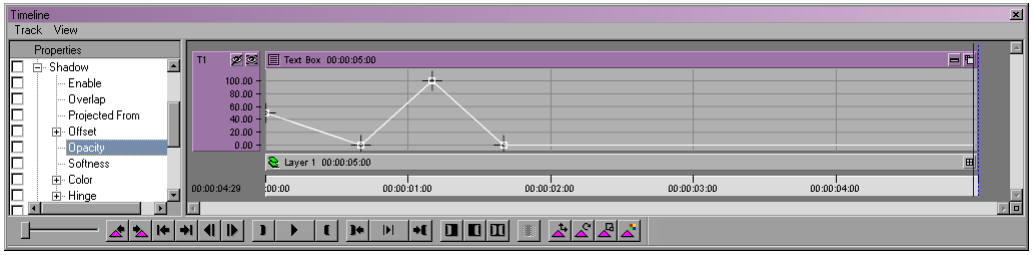


2. In the Properties list on the left of the Timeline window, click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside Shadow.

   The list expands to show all the Shadow properties.

3. Click Opacity to select it.

   A curve representing the animation of the Opacity property appears in the property curve graph.



This curve represents all the changes that you defined for the Shadow Opacity value while you were working in the Monitor window and the Quick Titles Properties window. The horizontal axis of the graph represents time, while the vertical axis represents the range of values for the property (in this case, 0 to 100). Each small hollow square on the graph is a keyframe marker that marks one of the points in time where you set a specific value for Opacity. The lines that run between these squares show the interpolation that Marquee performs between one square and the next.

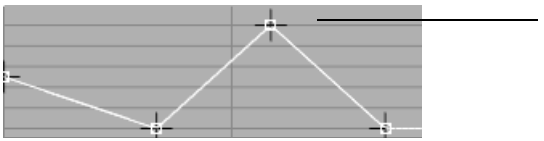
You will move one of the keyframe markers and add a new marker to lengthen the period when the glow is at 100% opacity. The glow will reach 100% a little earlier, and then remain at 100% for 20 frames.

You might notice that the graph shows a keyframe marker at the very beginning, representing an opacity value of 50%. This is the default starting keyframe marker that all properties have even if you make no animation adjustments. However, it has no visible effect on your object because the shadow is not set to show at all until the 00:00:00:20 mark. (You can confirm this in the graph by clicking Enable in the Shadow section of the Properties list to view the Enable curve.)

To modify keyframe markers for the glow animation:

1. Move the pointer over and then slightly to the side of the keyframe marker at the top of the graph.

   This is the keyframe marker that represents the point at which the glow opacity reaches 100%.



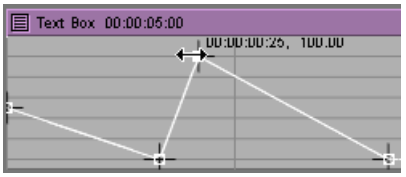
   When the pointer is in the correct position, it changes to a double-headed arrow pointing horizontally. When the pointer has this appearance, you can drag the marker and your dragging is constrained horizontally. You can change the time value for the keyframe, but you cannot accidentally alter the property value.

2. Drag the keyframe marker slowly to the left.

   When you start to drag, the property and time values for the keyframe appear above the pointer. As you drag, the time value changes.

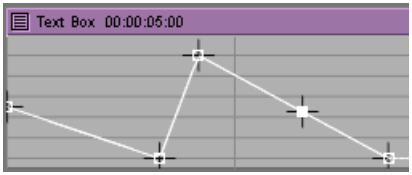
3. When the time value for the keyframe marker reaches 00:00:00:25, release the mouse button.

   You have moved this keyframe to an earlier point in time, and the opacity value for the glow now ramps up from 0 to 100 over only a few frames.



4. Right-click (Windows) or Ctrl+click (Macintosh) anywhere on the part of the curve that slopes downward from the keyframe marker you have just adjusted, and select Insert Key.

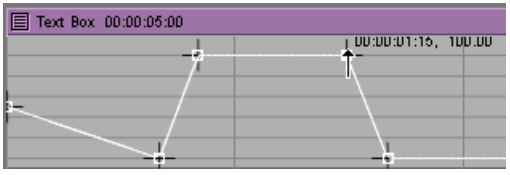
   A new keyframe marker appears where you clicked on the curve.



5. Move the pointer over the new keyframe marker.

   When the pointer is right over the keyframe marker, it changes to an upward-pointing arrow. When the pointer has this appearance, you can drag the keyframe marker freely in both dimensions of the graph.

6. Drag the marker up until its property value is 100 and across until its time value is 00:00:01:15, and then release the mouse button.



7. Press the Home key, and then press the space bar.

   The title plays again. Now the glow highlight is more prominent.

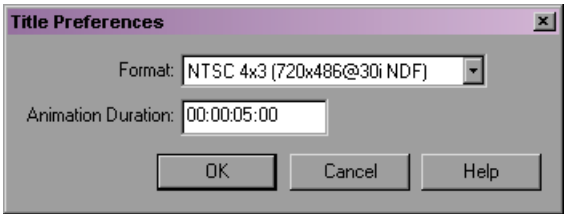
Modifying the Duration of the Title and the Text Object

You are now satisfied with your first text object. The animation looks good and moves at the speed you want. However, your plan for the title calls for a second text object that will move in a similar fashion to the first but will not appear until the first has faded out. You need to double the length of your title to accommodate this second object.

To change the title's duration:

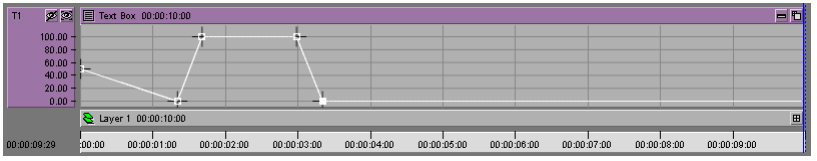
1. Select File > Duration.

   The Title Preferences dialog box appears.



2. Double-click in the Animation Duration text box, type `00:00:10:00`, and then click OK.

   The duration of the title doubles. In the Timeline, the numbers in the Time track change to reflect the new length.



Your existing text object, however, still occupies the full length of the title. Marquee has scaled the object, and all its animated changes, to the new title length. This standard Marquee behavior is often useful when you want to make a title longer or shorter without changing the proportions of the animated changes. In this case, it is not what you want, so your next task is to change the duration of the existing object so that it is again 5 seconds long. You do this by dragging in the Timeline, using a method very similar to the one you use when trimming clips in the Timeline of your Avid editing application.

To change the duration of the text object:

Hide Curves button 

1. In the Timeline window, click the Hide Curves button at the right side of the Text Box object track.

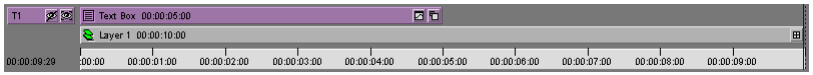
   The property curve graph disappears.

2. Move the pointer over the right end of the Text Box object track.

   The pointer changes to a trim roller.

3. Drag to the left until the end of the object track is at the 5-second point on the Timeline, and then release the mouse button.

   The duration of the object displays near the beginning of the track and updates as you drag.



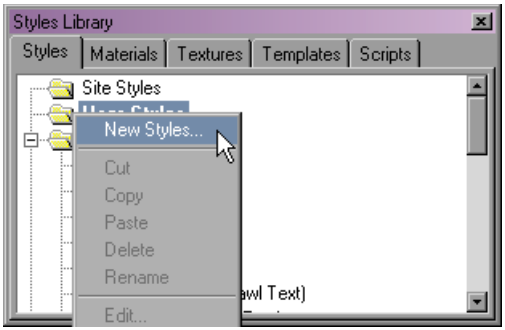
You now have a 10-second title in which the existing text object occupies the first 5 seconds. Now you can create a second text object that will occupy the last 5 seconds of the title.

Creating a Style from the First Text Object

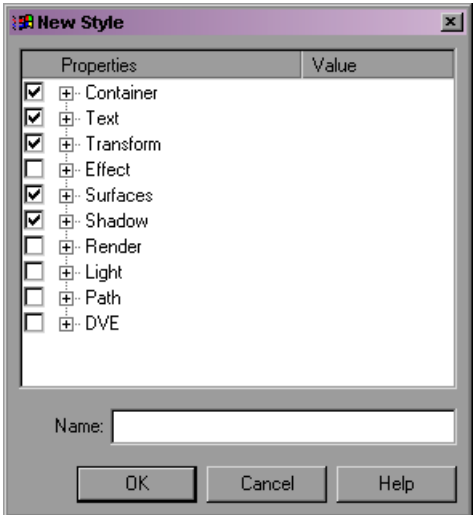
You will now save all the property values that define the first text object and its animation as a style. You can then create your second text object and apply the style to it, recreating all your animation work on the second object in a single step. The style will remain available for use in any other situation where you might need the same (or nearly the same) animation.

To create a style from the first text object:

1. Press Ctrl+T (Windows) or ⌘+T (Macintosh) to hide the Timeline window.
2. Make sure that the text object is selected in the Monitor window.
3. In the Styles Library window in the lower left corner of the screen, right-click (Windows) or Ctrl+click (Macintosh) the User Styles folder, and select New Styles.



The New Style dialog box appears.



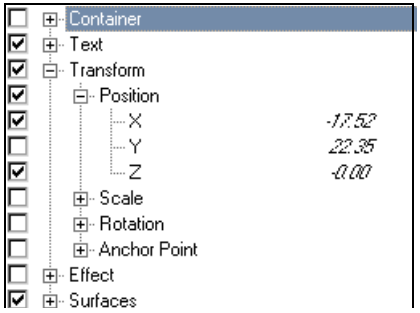
The New Style dialog box contains a Properties list similar to the one in the Timeline window. Any property that is selected in the column of check boxes on the left will be included in the style when you complete the process of creating it. At present, any property with a non-default value from your text object is selected in the list.

You want to keep most of these properties as part of your style, but you need to deselect some that will not be useful. For example, you don't want to include the Y (vertical) Position property. If you do, any new object to which you apply the style will use the same Y Position value as the first object and will appear on top of it. You should also deselect the Container property values, which control the size of the object's bounding box.

To modify and save the style:

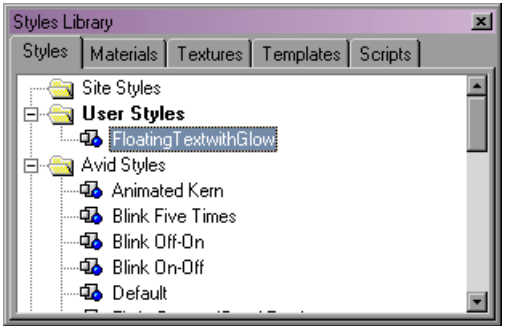
1. Deselect the Container property group at the top of the list.
2. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside Transform.
3. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside Position.
4. Deselect the Y property.

   Make sure you keep the X property selected, since this controls the horizontal movement of the animation.



5. In the Name text box, type **`FloatingTextwithGlow`**, and then click OK.

   A new style named FloatingTextwithGlow appears in the User Styles folder.



Creating the Second Text Object and Applying the Style

Now you can create the second text object and apply the style you just created.

Before you do so, you will leave Animation mode and return to the beginning of your title's duration. You need to leave Animation mode because you want to apply the property values from the style (including the animated properties) across the whole duration of the new object, not just at one point.

To create the second text object:

1. Click the Animation Mode button in the toolbox on the left of the Monitor window.

   The Animation Mode button changes to gray, indicating that you are not in Animation mode.

2. Press the Home key to return to the beginning of the title's duration.

3. Click the Text tool in the toolbox on the left of the Monitor window.

   The bounding box surrounding the existing text object changes to the Text tool bounding box.

4. Click away from the existing text box in the viewing area.

   The bounding box surrounding the existing text object changes to a dotted line, indicating that it is not currently selected.

5. Click in the viewing area somewhere below the existing text object and roughly in the center.

   You can adjust the final position of the new text object later.

6. Type **`ingenuity`**.

7. Click the Edit tool in the toolbox on the left of the Monitor window.

8. In the Styles Library window, double-click the FloatingTextwithGlow style.

   Marquee applies all the properties saved in the style, including those that are animated, to the new text object. You immediately see the text of your new text object disappear, because it now has a Master Opacity value of 0 at the beginning of its duration.

9. Click the new text object in the Monitor window to make that window active while keeping the object selected.

10. Press the Home key, and then press the space bar.

    The title plays. You'll see that all the animation and other properties that you created for the first object now also apply to the second. The word **ingenuity** now uses the Arial Bold font, fades up and down, moves horizontally, and has a glow highlight.

    However, you'll also notice a problem — the new text object animates more slowly because it currently occupies the full 10-second length of the title. (The following illustrations show several frames from the animation that show this.) You'll fix that problem, and make other final changes, in the next section of the lesson.

00:00:01:00

00:00:04:00

00:00:07:00

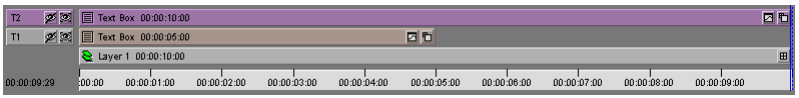
Modifying the Second Text Object in the Timeline

Now you'll make final adjustments to your title. You'll adjust the second text object to the correct length, quickly reverse one of its animated properties so that it moves from right to left on screen instead of from left to right, and, if necessary, make final adjustments to its position.

To set the duration of the second text object:

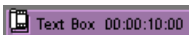
1. Press Ctrl+T (Windows) or ⌘+T (Macintosh).

   The Timeline window opens. You can now see a new Text Box object track that extends for the full duration of the title. The new track is purple because the object is selected in the Monitor window.



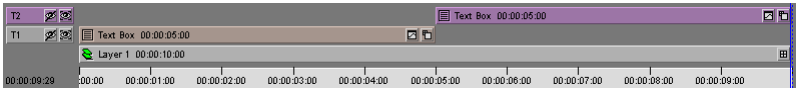
2. Move the pointer over the left end of the new Text Box object track.

   The pointer changes to a trim roller.



3. Drag to the right until the beginning of the object is at the 5-second point in the title.

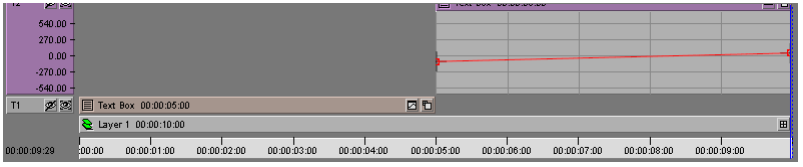
   The duration of the object displays near the beginning of the track and updates as you drag.



Show Curves button

4. Click the Show Curves button at the right side of the Text Box object track you have just modified.

   The property curve graph for the object appears.

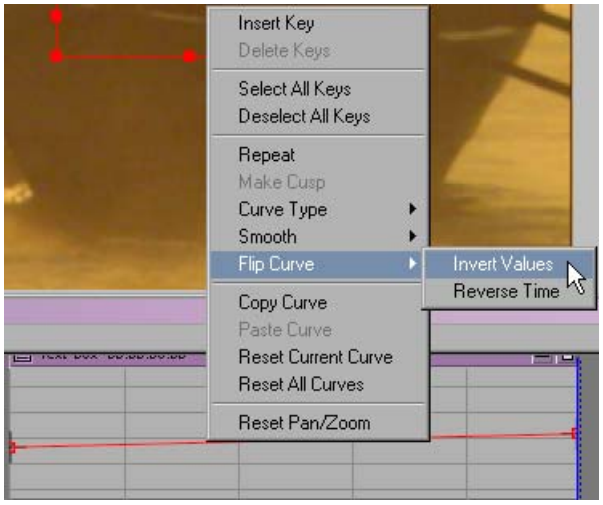


5. In the Properties list on the left of the Timeline window, click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside Transform.
6. Click the plus (+) icon (Windows) or the triangular opener (Macintosh) beside Position.

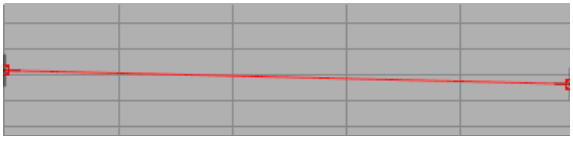
7. Click the X property to select it.

   The X Position property curve, representing the horizontal movement of the object, appears in the property curve graph. The curve is a line that slopes gently upward as the X position value increases during the course of the animation.

8. Right-click (Windows) or Ctrl+click (Macintosh) the property curve, and select Flip Curve > Invert Values.



   The curve in the property curve graph flips vertically, becoming a line that slopes gently downward. Now, the X Position value is decreasing during the course of the animation, which means that the object will move right to left instead of left to right.



9. Click the Go to Previous Edit button in the Transport controls at the bottom of the Timeline.

Transport controls

The Transport controls provide a full set of buttons for moving in and playing your title from the Timeline. Many of the button icons are similar to their equivalents in your Avid editing application. In this case, clicking the button moves you directly to the beginning of the second text object's duration.

10. If necessary, drag the object in the Monitor window to adjust its position.

    For example, you might want to move the starting position of the object further to the right. As you drag, the entire property curve moves in the Timeline. Marquee is dynamically adjusting the new starting X position of the object as you drag and adjusting the ending X position by the same amount, maintaining the animation move that you have already created.

11. Press the Home key, and then click the Play button.

    Clicking the Play button in the Transport controls is another way to play a title.

    The title plays. You can now see your final animation, with the first object moving left to right, and then the second moving right to left. The following illustrations show selected frames from the final animation.

00:00:01:00

00:00:04:00

00:00:06:00

00:00:09:00

If the playback stutters significantly, closing the Timeline (Ctrl+T on Windows or ⌘+T on Macintosh) should improve the performance. Any playback limitations that you see when working with animation in Marquee are the result of the complexity of drawing the animation to the Monitor window at full speed. Your finished title will play back smoothly in your editing application.

Saving the Animated Title to Your Avid Editing Application

Your animated title is now finished, and you can save it to the bin in your Avid editing application.

Saving an animated title requires Marquee to render a separate image for every frame in the title and requires the editing application to create an Avid Animated Title (which behaves as a real-time moving matte). This process can take time. This Animated Title will take several minutes to render and save to the bin.

To save the title to the bin in your Avid editing application:

1. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

2. Type **`Floating Text`** in the Title Name text box.
3. Make sure that "Use Same Save Options as Previous Title, if available" is selected.

   Marquee displays a Rendering Progress message box while it renders the graphics files that the editing application will use to create the Animated Title.

Marquee takes considerably longer to render those frames that contain the glow animation (several seconds for each frame). It is useful to remember that Marquee takes extra time to render soft shadows.

4. When the rendering process in Marquee is complete and the Rendering Progress message box disappears, switch to your Avid editing application.
5. In the Save Title dialog box, click Save.

   Your title appears in the bin (as Animated Title:Floating Text) and loads in the Source monitor.

6. Play the title in the Source monitor to see how it looks.
7. (Option) Edit the title over the Boat.tif clip in your sequence to see its final appearance against the background.

Lesson 6 Summary

In this lesson you have learned:

- How to animate objects in Animation mode using the Monitor window and controls in the Properties windows
- How to open the Timeline window
- How to view objects and their property curves in the Timeline
- How to modify animations in the Timeline property curve graph
- How to change the duration of titles and the objects within them
- How to create a style that saves the property values for an object
- How to apply a style to an object

For further experimentation, try the following:

- Elaborate on some of the animation you have created for one of the text objects. For example, add an additional position change and see how the object moves as a result, or add a color change to the glow animation so that the glow changes from white to another color as it fades in.
- Experiment with creating another style from the first text object. For example, if you deselect the Shadow property group in the New Style dialog box, you can create an alternative style called FloatingTextNoGlow that has all the other animations but does not include the glow highlight. Now you can choose between the two alternatives at any time.
- Experiment with moving keyframe markers around in the Timeline, replaying the title after each adjustment. You'll quickly get a sense of how easy it is to change the duration or the appearance of an animated effect simply by dragging keyframe markers in the Timeline.

For Complete Information On	See
Creating animation and working with the Timeline	The chapter "Animating Object Properties" on page 411
Working with styles	The chapter "Working with Styles" on page 523

Chapter 3

Creating Basic Titles for Your Avid Editing Application

This chapter describes how to create basic titles that you save to a bin in your Avid editing application for use in a sequence. Using the procedures in this chapter, you can create basic lower thirds, rolls, and crawls quickly and easily without needing to learn the advanced capabilities of Marquee.

The procedures in this chapter cover only basic lower thirds, rolls, and crawls and the most frequently needed adjustments to them. When you need more flexibility to customize your titles or more advanced features, you can turn to the information in later chapters of this guide. Use the many cross-references in this chapter to locate specific information that will help you create more complex titles.

This chapter covers the following topics:

Getting Started with the Marquee Interface

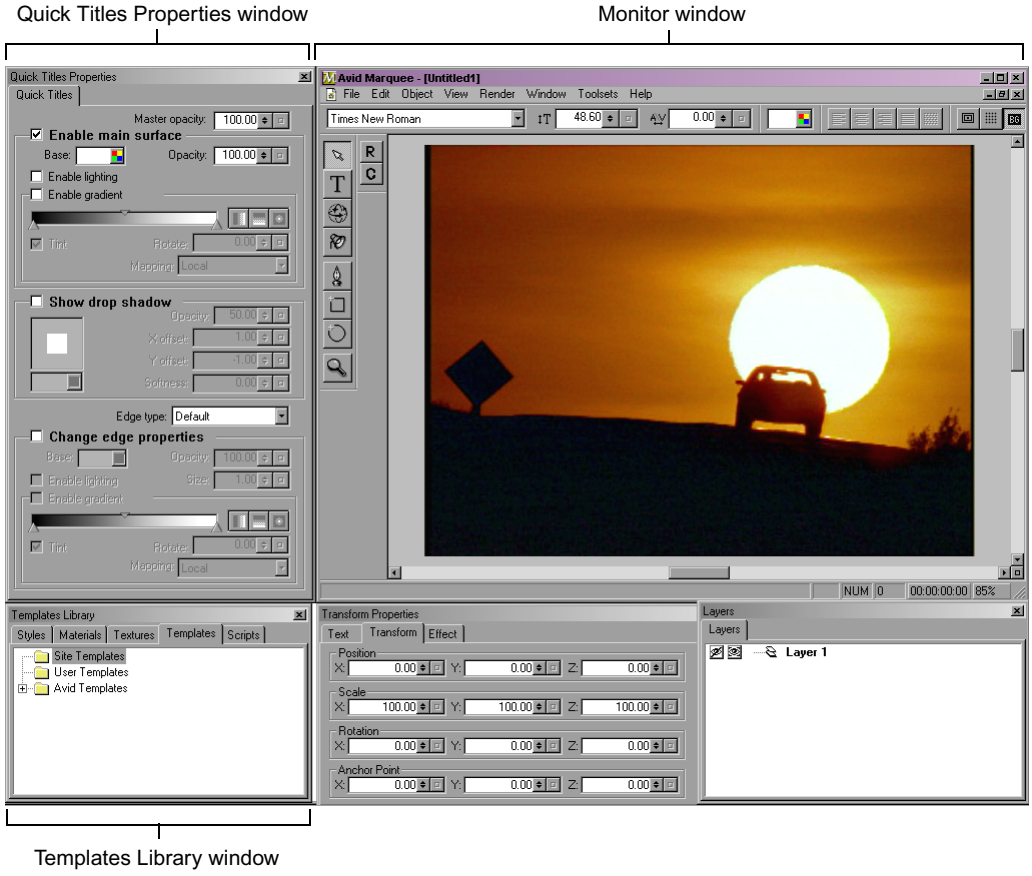
When you first start Marquee, you see the default interface configuration. This configuration includes all the tools and controls you need for basic titling work.

To create and customize the basic titles described in this chapter, you use the following parts of the interface:

- Monitor window
- Quick Titles Properties window
- Templates Library window

For more comprehensive information on the Marquee user interface, see “The Marquee User Interface” on page 179.

The following illustration shows the default Marquee interface.

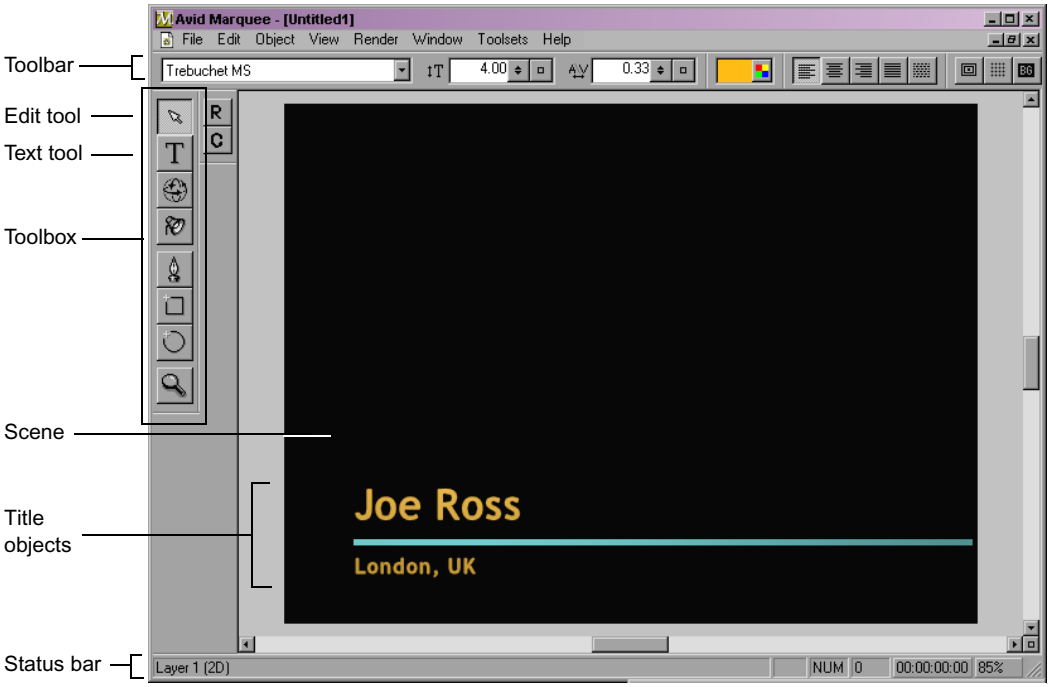


Monitor Window Basics

The Monitor window shows you the objects in your title as they appear in the scene. The scene is an area the same size (when viewed at 100%) as the frame in your sequence, for example, 720 x 486 pixels for a 4 x 3 NTSC video sequence. You can select text and other objects in your title using the Edit and Text tools in the toolbox. You can adjust some aspects of your title's appearance, particularly text formatting, using the controls in the Monitor Window toolbar.

For more information on the Monitor window, see "Monitor Window" on page 180.

The following illustration shows the Monitor window with a typical lower third title.



The Quick Titles Properties Window

The Quick Titles Properties window provides a single location for basic title controls that are not available in the Monitor Window toolbar. It contains controls that can also be found in other Properties windows, but that are grouped together in the Quick Titles Properties window for the convenience of beginning users and users who need to create only basic titles.

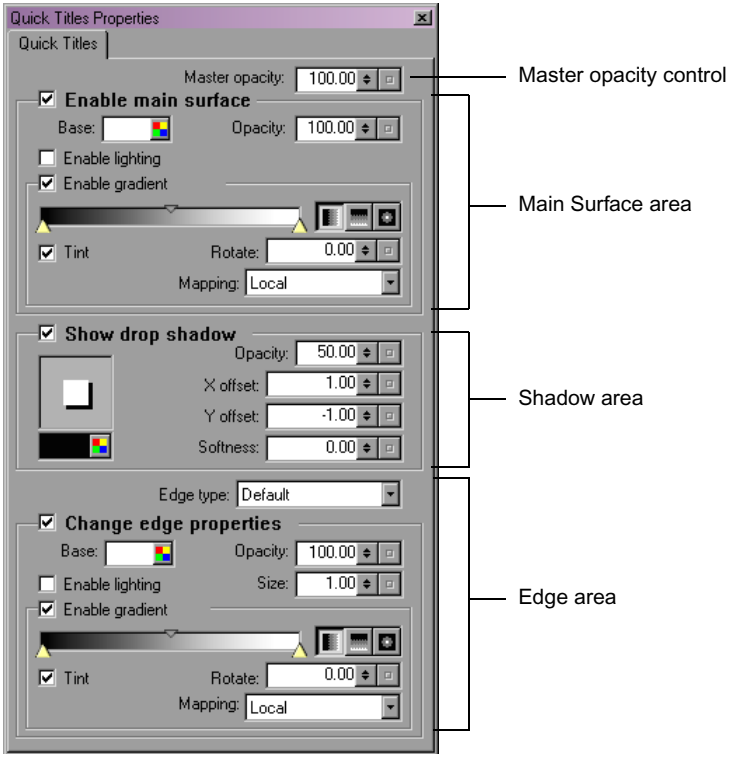
For more information on the other Properties windows and the full range of controls available in them, see "Properties Windows" on page 194 and "Properties Windows and Their Controls" on page 305.

The Quick Titles Properties window is divided into four sections:

- A master control for setting the opacity of a title object

- A Main Surface area that contains controls for changing the appearance of the main surface of an object
- A Shadow area that contains controls for adjusting the shadow for an object
- An Edge area that contains controls for adjusting the Edge effect for an object

The following illustration shows the Quick Titles Properties window.



The Templates Library Window

The Templates Library window displays the contents of the Templates library, a collection of templates that define the content and layout of titles. You start creating the basic title types covered in this chapter by applying one of the templates in the Avid Templates folder of the Templates library.

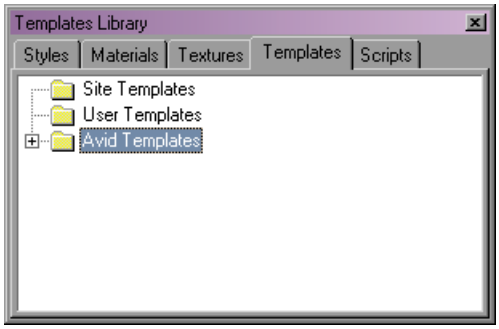
By default, the Templates Library window appears as a tab within a Library window located in the lower left corner of the screen that groups several Marquee libraries.

For more information on libraries, see "Marquee Libraries" on page 173.

To show the contents of the Templates library:

- Click the Templates tab in the Library window.

The following illustration shows a typical view of the folders in the Templates library.



Basic Titling Workflow

The following procedure explains the main steps you take when creating a basic title for use in your Avid editing application.

For more information on how Marquee and your Avid editing application work together, see the chapter "Using Marquee with Your Avid Editing Application" on page 213.

For a Marquee workflow that allows for more complex features such as animation, see "Marquee Workflow" on page 168.

To create a basic title for use in your Avid editing application:

1. Open Marquee.

   Marquee automatically creates a new title when you open it from your Avid editing application. For more information, see "Creating New Basic Titles" on page 141.

2. Apply a template to the title.

   For more information, see "Applying Basic Title Templates" on page 142.

3. Replace the placeholder text in text objects with appropriate text content.

   For more information, see "Replacing Placeholder Text" on page 146.

4. Use the controls on the Monitor Window toolbar and in the Quick Titles Properties window to modify the look of your title.

   For more information, see "Modifying Basic Titles" on page 143.

5. Save your title as a title clip in an editing application bin.

   For more information, see "Saving Basic Titles" on page 164.

6. (Option) If you have finished working with Marquee, quit Marquee.

Creating New Basic Titles

You open Marquee from your Avid editing application. When Marquee opens, it automatically creates a new title. New titles always use settings (for example, for dimensions and frame rate) based on the current project in your editing application.

For information on customizing title settings, see "Title Duration and Title Formats" on page 243.

To open Marquee and create a new title:

1. In your editing application, do one of the following:

   - Select Clip > New Title.
   - Select Tools > Title Tool.

   The New Title dialog box appears.

2. Click Marquee.

   Marquee opens in the Bin monitor and creates a new title.

Applying Basic Title Templates

The title templates supplied with Marquee provide predefined title objects, layout, and behavior that you can use to create basic titles. You apply a template to your new title and then modify the content to meet your needs, for example, by changing the text or altering the appearance of some of the objects.

For complete information about templates, including procedures for applying templates and creating new templates, as well as descriptions of Avid-supplied templates, see the chapter "Working with Templates" on page 531.

For general information about objects and how Marquee organizes them, see "Understanding Objects" on page 277 and "The Marquee Object Model" on page 169.

For a full discussion of the organization of templates and other library elements, see "Marquee Libraries" on page 173.

To begin creating title objects manually, see the chapter "Creating and Editing Objects" on page 277.

To apply a basic title template:

1. If you have not already done so, create a new title, as described in "Creating New Basic Titles" on page 141.
2. In the Library window, click the Templates tab.
3. In the Avid Templates folder, open the LowerThirds, RollingTitles, or CrawlingTitles folder as appropriate by doing one of the following:
   - (Windows) Double-click the folder.
   - (Windows) Click the Plus Sign (+) icon beside the folder.
   - (Macintosh) Click the triangular opener beside the folder.
4. Double-click the template you want to apply to your title.

   Marquee applies the template, and the objects in the template appear in the Monitor window. The following illustration shows the objects for the "NameLocation-BlueRule" Lower Third template.

You can also create rolling or crawling text objects quickly and easily by using the Adjust Roll or Adjust Crawl toolbar button. For more information, see *"Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357.*

Modifying Basic Titles

Once you have applied a template to your title, you can modify the title to meet your requirements.

You must replace the placeholder text from the template (such as "Name") with the specific text that you need. You can also quickly change many aspects of the individual objects in your title, such as a text font or the color of a graphic object. In Marquee, the individual attributes of an object that you can adjust, such as size, color, and location, are known as properties. The following sections explain how to make these changes.

Maintaining Requirements for Basic Rolling and Crawling Titles

A rolling or crawling title created with Marquee must meet certain requirements to be saved as an Avid Rolling Title or Crawling Title. For example, it must be the full height of the scene (for rolling titles) or the full width of the scene (for crawling titles). The templates in the RollingTitles and CrawlingTitles folders meet these requirements.

If you modify a Marquee rolling or crawling title so that it no longer meets the requirements for an Avid Rolling Title or Crawling Title, you can save it to your Avid editing application only as an Animated Title.

There are two advantages to creating rolling or crawling titles in Marquee that can be saved as Avid Rolling Titles or Crawling Titles in your Avid editing application. First, they save quickly since only a small number of temporary graphics need to be rendered when you save them to a bin. Second, their length can be adjusted in your editing application. An Animated Title takes longer to render when you save it to a bin, and its length is fixed at the duration set in Marquee.

For a full discussion of the requirements for creating Avid Rolling Titles and Crawling Titles, see "How Marquee and Your Avid Editing Application Save Titles" on page 221.

When you modify a basic rolling or crawling title created with a template, you should limit your changes to replacing and modifying the template placeholder text or changing text color. Do not change the height of the text object in a rolling title or the width of the text object in a crawling title. Observe the other specific limitations on modifications to rolling and crawling titles that are noted in the following sections.

Viewing Rolling and Crawling Title Text Objects

When you first apply a rolling title or crawling title template, the text object that contains the rolling or crawling text appears as a red bounding box with bounding box handles. However, you cannot see the placeholder text in the text object because you are viewing the roll or crawl at the very beginning of the title's duration, when the start of the roll or crawl is still off screen.

To see the text in a roll or crawl, do one of the following:

- Click the Text tool.

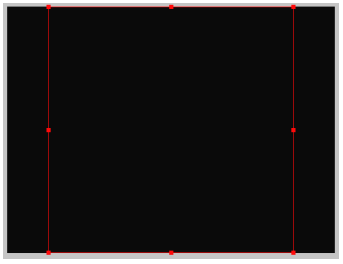
  This makes the placeholder text visible and available for editing.

Time Display button

- Click the Time Display button near the lower right corner of the Monitor window, and drag to the right until text appears in the scene.

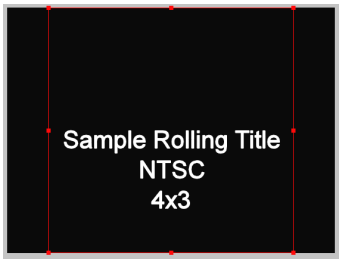
  This shows you how the roll or crawl moves over the duration of the title.

The following illustration shows a text object from a rolling title template as it originally appears and after it has been made visible using the two techniques described above.



Appearance of rolling title text object immediately after template is applied

Appearance of rolling title text object after switching to Text tool (text is available for editing)



Appearance of rolling title text object after dragging in Time Display area to show text

By dragging to the right on the Time Display button, you are moving forward in time in the title. For more information on moving through time in a title, see "Moving Through Time" on page 262.

For more information on working with rolling or crawling text objects, see "Creating Rolling, Crawling, and Path Text" on page 350.

Modifying Text

The following sections describe the modifications you can make using controls in the Monitor window that are specific to text objects, such as changing the text content and modifying fonts.

For complete information on creating and editing text objects and on formatting text, see the chapter "Working with Text" on page 323.

Selecting Text

You must select text in order to modify it. This section explains basic methods for selecting text using the Edit tool and the Text tool.

Use the Edit tool to select an entire text object. You can then change a text property such as the font or the color for the whole object. In most cases, this is the best way to make a change that you want to apply to all the text in an object.

Use the Text tool to select a specific range of characters within a text object, for example, a single word or the first letter of each word. You can then change a text property for those characters without changing the other characters in the object.

Also use the Text tool to select any range of text, including all the text in an object, when you want to change the actual content of the text rather than one of the properties that control its appearance.

To select an entire text object using the Edit tool:

1. Click the Edit tool.
2. Click anywhere inside the text object.

   A red bounding box with handles appears around the text object.

To select a range of text using the Text tool:

1. Click the Text tool.

   The text objects in the title are outlined with dotted-line bounding boxes.
2. Click inside the text object with which you want to work.

   A red box appears around the text object, and an insertion point (I-beam cursor) appears inside the box.

Insertion point 

3. Do one of the following:
   - To select all the text, press Ctrl+A (Windows) or ⌘+A (Macintosh).
   - To select a range of text, drag the text cursor from the beginning of the range and release the mouse button at the end of the range.

     The range of text is highlighted as you drag.

Replacing Placeholder Text

Replacing the placeholder text from a template for a basic title is a simple matter of selecting all the text and then typing replacement text. Since you are changing text content, select the text using the Text tool.

To replace placeholder text in a basic title:

1. Click the Text tool.

   The text objects in the title are outlined with dotted-line bounding boxes.

2. Highlight the text object you want to modify by clicking inside its dotted-line bounding box.

   The bounding box changes to a solid red box with an additional red box above and a large red I-beam pointer.

3. Press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text in the text object.

4. Type the replacement text.

   - To add a new line as you are typing text, press Enter (Windows) or Return (Macintosh).
   - To add a large space as you are typing text, press the Tab key.

Formatting Text

You can control a number of text properties using controls in the Monitor Window toolbar.

The following procedures describe basic methods for:

- Changing the font or making text bold or italic
- Changing the font size
- Changing the kerning (the spacing between characters in text).

When you use a control such as the Font list or the Font Size text box to change a property of a text object, the text object updates immediately in response to the change. However, the text object is not able to receive changes in text content until you return focus to it by clicking it (using the Text tool) in the Monitor window.

To change the font of text:

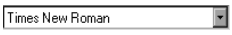
1. Do one of the following:

- To change the font for an entire text object, click the Edit tool and then click the text object.

- To change the font for a specific range of text characters, click the Text tool and then select the range.

  For more information, see "Selecting Text" on page 145.

Although you can make changes to the formatting of all the text in an object by selecting the text with the Text tool, doing so can cause problems, for example with the way formatting information is represented in styles. Avid recommends that you make formatting changes for all the text in an object by selecting the object using the Edit tool.



2. Select a new font from the Font list in the Monitor Window toolbar.

   The selected text updates to use the new font.

To make text bold or italic:

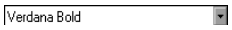
1. Do one of the following:

- To make an entire text object bold or italic, click the Edit tool, and then click the text object.

- To make a specific range of text characters bold or italic, click the Text tool, and then select the range.

  For more information, see "Selecting Text" on page 145.

2. Select the appropriate variant of the current font from the Font list in the toolbar.



For example, if the font is currently Verdana, select Verdana Bold from the Font list.

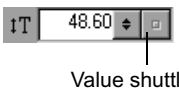
To change the font size of text:

1. Do one of the following:

- To change the font size for an entire text object, click the Edit tool, and then click the text object.

- To change the font size for a specific range of text characters, click the Text tool, and then select the range.

  For more information, see "Selecting Text" on page 145.



2. In the Monitor Window toolbar, do one of the following:

- Type a value in the Font Size text box.
- Click the value shuttle to the right of the Font Size text box, press and hold the mouse button, and drag up or down to increase or decrease the font size. Release the mouse button when the text is the size you want.

By default, font size is measured as a percentage of the height of the scene and converted to points for display in the Font Size text box. The default font size is 10% of the height of the scene (48.6 points for NTSC format). For more information on this method of measurement, see "Understanding Distance Measurement" on page 178. For information on changing the unit of measurement, see "User Interface Preferences" on page 253.

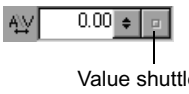
To change the kerning of text:

1. Do one of the following:

- To change the kerning for an entire text object, click the Edit tool, and then click the text object.

- To change the kerning for a range of text, click the Text tool, and then select the range.

  For more information, see "Selecting Text" on page 145.



2. In the Monitor Window toolbar, do one of the following:
   - Type a value in the Kerning text box.
   - Click the value shuttle to the right of the Kerning text box, press and hold the mouse button, and drag up or down to increase or decrease the font size. Release the mouse button when the text is the size you want.
   - If you have a range of text selected, press Alt+Left Arrow (Windows) or Option+Left Arrow (Macintosh) to decrease kerning, or press Alt+Right Arrow (Windows) or Option+Right Arrow (Macintosh) to increase kerning.

Selecting Objects

To modify a title object of any kind, you need to select the object. The following table describes how to perform the most commonly used selection operations.

For text objects, you can also make selections by using the Text tool and then dragging the text cursor across text. For more information, see "Formatting Text" on page 148.

For complete information on options for selecting objects and subobjects, see "Selecting and Deselecting Objects" on page 280. For more information on the relationship between objects and subobjects, see "Object Hierarchy" on page 170.

To select an object:

- Click the Edit tool, and then click the object.

To select multiple objects:

- Click the Edit tool, click one object, and then Ctrl+click (Windows) or ⌘+click (Macintosh) each additional object.

To select all objects:

- Press Ctrl+A (Windows) or ⌘+A (Macintosh).

To select a subobject, for example a single character in a text object:

- Click the Edit tool, and then Alt+click (Windows) or Option+click (Macintosh) the subobject.

To select multiple subobjects:

- Click the Edit tool, Alt+click a subobject, and then Ctrl+click (Windows) or ⌘+click (Macintosh) each additional subobject.

Positioning Objects

You can position title objects by dragging them in the Monitor window or by "nudging" them using the keyboard. You can display guides or a background taken from the sequence in your editing application to help you position objects where you need them.

For more information on positioning objects, see "Arranging Objects" on page 281.

For more information on guides and backgrounds, see "Displaying Guides" on page 269 and "Working with Backgrounds" on page 273.

To reposition an object by dragging:

1. Click the Edit tool.
2. Select the object you want to reposition.

   For more information, see "Selecting Objects" on page 150.
3. With the pointer inside the object's bounding box, press and hold the mouse button, and drag the object.
4. When the object is in the position you want, release the mouse button.

To nudge an object one pixel at a time:

1. Click the Edit tool.
2. Select the object that you want to reposition.

   For more information, see "Selecting Objects" on page 150.
3. Press one of the arrow keys.

   The object moves one pixel in the direction of the arrow key you pressed.

To show or hide guides or a background frame:

- Click one of the following buttons in the Monitor Window toolbar:

  - Safe Action/Title, to show or hide the safe action and safe title areas

  - Grid, to show or hide a 16 x 12 grid of points

- Background, to show or hide a background image that Marquee creates from the video frame at the current location of the position indicator in your Avid editing application

Changing the Opacity of Objects

You can adjust the opacity of an entire title object using the “Master opacity” control in the Quick Titles Properties window. An opacity value of 0 makes the object fully transparent (invisible), while an opacity value of 100 makes the object fully opaque.

You can also set the opacity of certain parts of a title object independently. For example, you can adjust the opacity of a title’s shadow separately.

For complete information on controlling the opacity and visibility of objects, see “Changing the Visibility of Objects” on page 295.

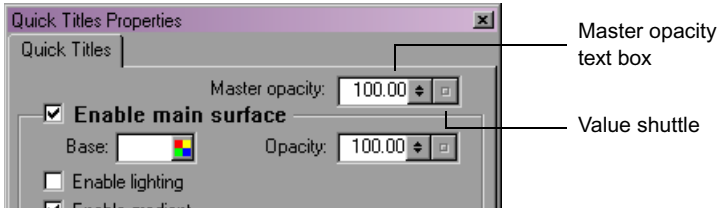
To adjust the opacity of a title object:

1. Select the object whose opacity you want to adjust.

   For more information, see “Selecting Objects” on page 150.

2. In the Quick Titles Properties window, do one of the following:

   - Type a value in the “Master opacity” text box.
   - Click the value shuttle to the right of the “Master opacity” text box, press and hold the mouse button, and drag up or down to increase or decrease the opacity value. Release the mouse button when the object has the degree of transparency you want.



Changing the Appearance of Main Surfaces

Objects in Marquee have several different surfaces. The simple text and graphic objects from templates in basic titles have only one surface enabled — the Main surface, which covers the whole object as it is originally displayed.

You can enable an object's Edge surface to create border effects. For more information, see "Creating and Modifying Edge Effects" on page 160.

The remaining surfaces that can be enabled on an object are used in more advanced titling work. For more information on the types of surfaces available in Marquee objects, see "Understanding Surfaces and Materials" on page 451. For complete information on modifications that you can make to the appearance of an object's surface, see the chapter "Working with Surfaces and Materials" on page 451.

You can adjust the following characteristics of an object's Main surface using basic controls in the Monitor window and the Quick Titles Properties window:

- Color (this can be a solid color or a gradient between colors)
- Opacity level (this can be uniform across the whole surface or a gradient between different opacity levels)
- Lighting

Setting a Solid Color for Main Surfaces

To set a solid color as the Main surface color:

1. Select the object whose Main surface color you want to change.

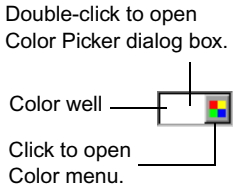
   For more information, see "Selecting Objects" on page 150.

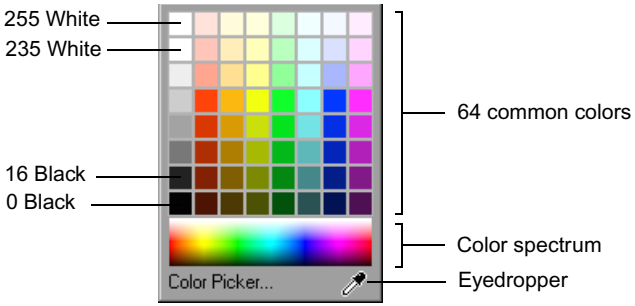
2. Make sure that "Enable main surface" is selected in the Main Surface area of the Quick Titles Properties window.

3. Do one of the following:

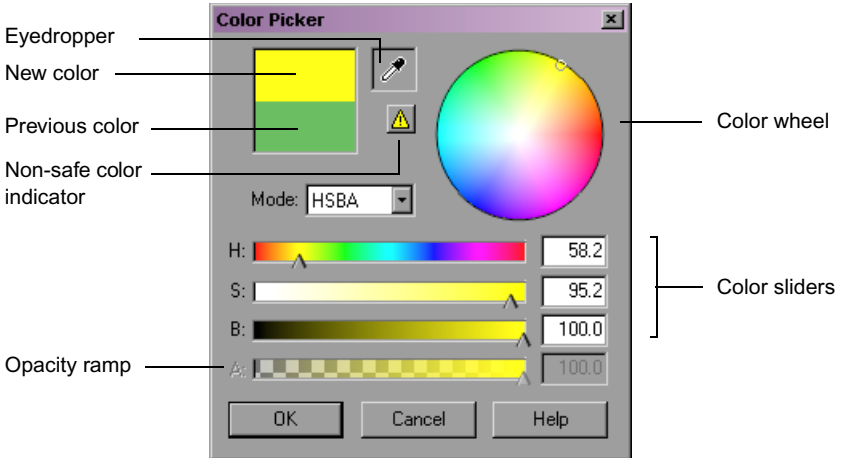
   - In the Monitor Window toolbar, click and hold the button next to the color well.
   - In the Main Surface area, click and hold the button next to the Base color well.

   The Color menu appears.





4. Pick a color by doing one of the following (the color that you select appears in the color well and on the object):
   - Click one of the 64 common color swatches in the top area of the Color menu.
   - Click the color you want in the Color spectrum.
   - (Windows) Drag the eyedropper to select a color from any area of the screen, including an area in another application such as your Avid editing application. Release the mouse button when the eyedropper is over the color you want.
   - (Macintosh) Click the eyedropper in the Color menu, move the eyedropper pointer over a color anywhere in Marquee, and then click to select the color.
   - Click Color Picker to open the Color Picker dialog box that allows you to specify an exact color by adjusting sliders or selecting from a color wheel.



You can also double-click the color well in the Monitor Window toolbar or the Base color well in the Main Surface area of the Quick Titles Properties window to open the Color Picker dialog box directly.

For complete details on working with the color controls, including details on using the Color Picker dialog box, see "Selecting Color Values" on page 205.

Colors that you select in Marquee for titles that you save to a bin in your Avid editing application are modified when they are saved. They are converted to the YUV color space your editing application uses for video. If you are using Avid Symphony as your editing application, they are also limited in accordance with any Safe Color settings for titles that you have established in Symphony. This might result in changes to the exact appearance of colors. Such changes are generally what you want to ensure that colors do not exceed safe limits for broadcast. For more information on Safe Color settings in Symphony, see "Safe Color Limiting and Warning" in the Help for Avid Symphony.

Setting the Opacity of Main Surfaces

You can set the opacity of an object's Main surface alone. This is useful if you want to set different opacity levels for different surfaces, for example, the Main surface and the Edge surface.

You can set a single opacity level that applies to the entire Main surface, or you can define an opacity gradient using the Color menu. For information on defining an opacity gradient, see "Defining a Color or Opacity Gradient for Main Surfaces" on page 156.

To set the opacity level for only the Main surface of a title object:

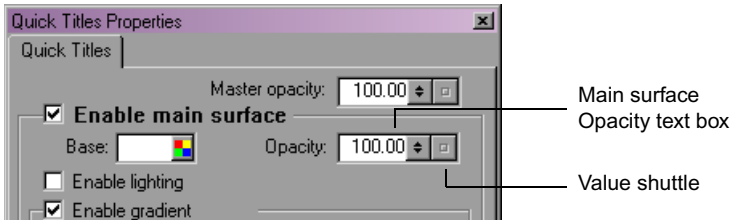
1. Select the object whose Main surface opacity you want to change.

   For more information, see "Selecting Objects" on page 150.

2. Make sure that "Enable main surface" is selected in the Main surface area of the Quick Titles Properties window.

3. In the Main Surface area, do one of the following:

   - Type a value in the Opacity text box.
   - Click the value shuttle to the right of the Opacity text box, press and hold the mouse button, and drag up or down to increase or decrease the opacity value. Release the mouse button when the object has the degree of transparency you want.



Defining a Color or Opacity Gradient for Main Surfaces

The following procedure explains how to create a basic gradient using two colors or two opacity values. You can also create more complex gradients using more than two colors. For more information, see "Editing Gradient Materials" on page 470.

When you are defining a gradient, it is important to understand the concept of tinting in Marquee. You can use the Base color for a surface to tint a gradient. The result is a new color that combines the Base color and the gradient colors. If you are defining a gradient and the final colors on your title object's surface are not what you expect, you might need to deselect Tint.

To define a color or opacity gradient for the Main surface of a title object:

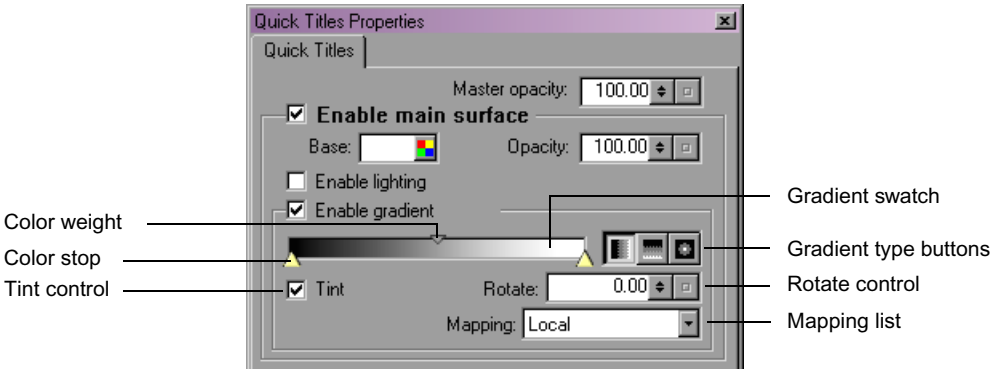
1. Select the object whose Main surface you want to change.

   For more information, see "Selecting Objects" on page 150.

2. Make sure that "Enable main surface" is selected in the Main Surface area of the Quick Titles Properties window.

3. In the Main Surface area, select "Enable gradient."

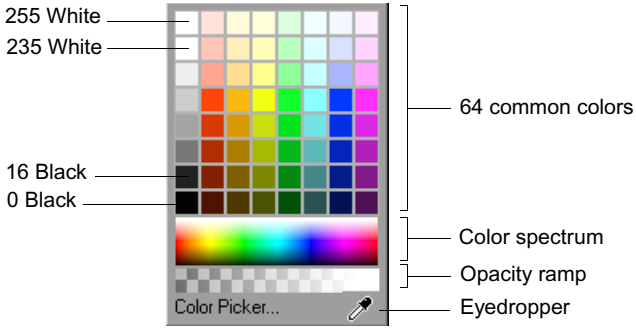
   The gradient controls become available. The gradient defined by the controls appears on the object's Main surface and is shown in the Quick Titles Properties window in the gradient swatch.



4. To adjust the color or opacity values for the gradient, do one of the following for each of the color stops below the gradient swatch (each triangle controls the color or opacity value that is directly above it in the gradient swatch):

   - Right-click (Windows) or Ctrl+click (Macintosh) the color stop.

     The Color menu appears.



   - Double-click the color stop.

     The Color Picker dialog box appears, allowing you to pick an exact color by adjusting sliders or selecting from a color wheel.

5. To adjust the color, select a color from the Color menu or from the Color Picker dialog box.

   For more information, see step 4 in “Setting a Solid Color for Main Surfaces” on page 153.

6. To adjust the opacity, click in the Opacity ramp of the Color menu or the A (Alpha) slider in the Color Picker dialog box.

   When you click at the left end of the Opacity ramp or of the Alpha slider, the surface is fully transparent. When you click at the right end, the surface is fully opaque.

7. To control whether gradient colors are tinted with the Base color currently selected in the Main area of the Quick Titles Properties window, select or deselect Tint.

8. To control where the halfway point of the gradient lies, drag the color weight above the gradient bar to the left or right.

9. To control the type of gradient, click one of the gradient type buttons. Click the same button again to reverse the gradient. The following gradient types are available:

   - *Horizontal:* The gradient is applied to the surface from left to right, or from right to left when reversed.
   - *Vertical:* The gradient is applied to the surface from top to bottom, or from bottom to top when reversed.
   - *Radial:* The gradient is applied to the surface from the edge to the center in concentric circles, or from the center to the edge when reversed.

10. To rotate a linear gradient to an angle other than horizontal or vertical, do one of the following:

    - Type a value (in degrees) in the Rotate text box.
    - Click the value shuttle to the right of the Rotate text box, press and hold the mouse button, and drag up or down to increase or decrease the angle value. Release the mouse button when the gradient is at the angle you want.

11. To control how the gradient is mapped to the object's surface, select an option from the Mapping list.

    For basic titles, you do not normally need to adjust this control except for text objects in static titles. For text objects, select Local to apply the gradient to each character individually, or select Container to apply the gradient across the whole object, as shown in the following illustrations.

Local Mapping — Gradient is applied to each letter individually.

Container Mapping — Gradient is applied across the whole text object.

The Mapping control must be set to Local for a basic rolling or crawling title. If you set the Mapping control to any other value, you cannot save the title to your Avid editing application as an Avid Rolling Title or Crawling Title. If you do save the title, your editing application allows you to save the title as an Animated Title.

For more information on Mapping options, see "Controlling How Textures Are Mapped onto Surfaces" on page 482.

Enabling Lighting for Main Surfaces

You can choose to enable lighting for the Main surface of a title object. When lighting is enabled, the surface appears to be lit by a light source. The following illustration shows a sample text object with and without lighting.

Lighting disabled

Lighting enabled

Default lighting will often provide an acceptable effect for basic titles, and more advanced control of lighting is beyond the scope of this chapter. Marquee offers a full range of lighting adjustments, including control over the number, position, and color of light sources. For more information, see the chapter "Working with Lights and Shadows" on page 497.

Do not enable lighting for a basic rolling or crawling title. If you enable lighting, you cannot save the title to your Avid editing application as an Avid Rolling Title or Crawling Title. If you do save the title, your editing application allows you to save the title as an Animated Title.

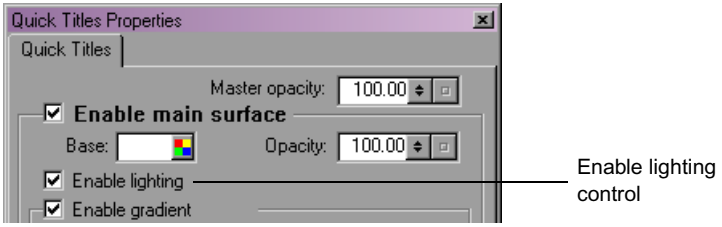
To enable or disable lighting for the Main surface of a title object:

1. Select the object.

   For more information, see "Selecting Objects" on page 150.

2. Make sure that "Enable main surface" is selected in the Main Surface area of the Quick Titles Properties window.

3. In the Main Surface area, select or deselect "Enable lighting."



Creating and Modifying Edge Effects

You can enable the Edge surface of an object using controls in the Edge area of the Quick Titles Properties window. This creates a visible border for the object whose appearance you can control separately from the Main surface. For example, you might have a beveled Edge surface for text characters that is a different color from the rest of the characters (the Main surface).

You can choose from a number of different edge types, each of which offers a different look for the edges of your object. You can adjust the size (width) of the edge. You can also adjust the appearance of an Edge surface in just the same way that you can adjust the appearance of a Main surface.

Do not enable lighting for a basic rolling or crawling title. If you enable lighting, you cannot save the title to your Avid editing application as an Avid Rolling Title or Crawling Title. If you do save the title, your editing application allows you to save the title as an Animated Title.

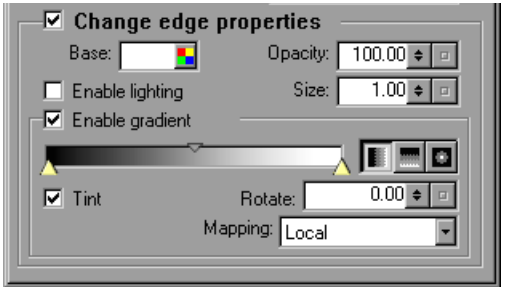
To create and size an Edge effect:

1. Select the object on which you want to create the Edge effect.

   For more information, see “Selecting Objects” on page 150.

2. In the Edge area of the Quick Titles Properties window, select an edge type other than Default from the “Edge type” list.

   Avid recommends the Flat Border or MC Border types for basic titles. For information on all the available edge types, see Table on page 489.



Edge property controls in the Quick Titles Properties window

3. In the Edge area, make sure that “Change edge properties” is selected.
4. In the Edge area, use the Base color well to change the color of the Edge surface so that it is different from the color of the Main surface.

   Until you make this change, you cannot easily distinguish the Edge surface from the Main surface. Use the same adjustment methods that you use for adjusting the color for a Main surface. For more information, see “Changing the Appearance of Main Surfaces” on page 153.

5. In the Edge area, do one of the following:

   - Type a value in the Size text box.
   - Click the value shuttle to the right of the Size text box, press and hold the mouse button, and drag up or down to increase or decrease the value. Release the mouse button when the width of the edge reaches the level you want.

6. (Option) In the Edge area, adjust the Opacity control, select “Enable lighting,” or select “Enable gradient” and adjust the gradient controls as necessary to achieve the look you want for the Edge surface.

   Use the same adjustment methods that you use for adjusting the equivalent properties for a Main surface. For more information, see “Changing the Appearance of Main Surfaces” on page 153.

Creating and Modifying Drop Shadows

You can apply a drop shadow to a title object using controls in the Shadow area of the Quick Titles Properties window. You can adjust the shadow's position, color, opacity, and softness.

For complete information on creating a variety of shadow types in Marquee, see the chapter "Working with Lights and Shadows" on page 497.

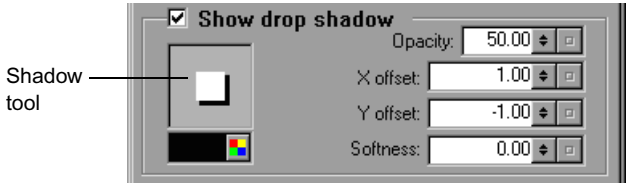
Applying soft shadows to title objects slows Marquee's performance. When your title objects have soft shadows, you might notice that the redrawing of objects in the Monitor window is slower. Also, soft shadows always slow the rendering that is part of the process of saving titles to your Avid editing application. You can speed up Marquee's performance when drawing objects with soft shadows in the Monitor window by lowering the viewing Quality setting once you are satisfied with the look of the shadows themselves. For more information, see "Setting the Quality Level for Viewing in the Monitor Window" on page 266.

To create a drop shadow:

1. Select the object to which you want to apply a shadow.

   For more information, see "Selecting Objects" on page 150.

2. In the Shadow area of the Quick Titles Properties window, select "Show drop shadow."



3. In the Shadow area, adjust the shadow's position by doing one of the following:

   - Click in the Shadow tool and drag.

     In the Shadow tool, the white square represents the title object, and the black square, which appears and moves as you drag, represents the location of the shadow relative to the object.

   - Type values in the X offset and Y offset text boxes.

- Click the value shuttle to the right of the X offset or Y offset text box, press and hold the mouse button, and drag up or down to increase or decrease the offset value. Release the mouse button when the shadow is in the position you want.

  In the X offset and Y offset text boxes, positive values locate the shadow to the right of or above the object, while negative values locate the shadow to the left of or below the object.

4. In the Shadow area, adjust the shadow's color by doing the following:

   a. Click the button beside the color well (below the Shadow tool).

      The Color menu appears. You can also double-click the color well itself to open the Color Picker dialog box directly.

   b. To adjust the color, select a color from the Color menu.

      For more information, see step 4 in "Setting a Solid Color for Main Surfaces" on page 153.

5. In the Shadow area, adjust the shadow's opacity by doing one of the following:

   - Type a value in the Opacity text box.
   - Click the value shuttle to the right of the Opacity text box, press and hold the mouse button, and drag up or down to increase or decrease the opacity. Release the mouse button when the opacity reaches the level you want.

6. In the Shadow area, adjust the shadow's softness by doing one of the following :

   - Type a value in the Softness text box.
   - Click the value shuttle to the right of the Softness text box, press and hold the mouse button, and drag up or down to increase or decrease the value. Release the mouse button when the softness reaches the level you want.

   A value of 0 in the Softness text box creates a shadow with hard edges and corners. Higher values create softer edges and corners.

Saving Basic Titles

When you save a basic title, the result is a title clip in an Avid editing application bin that functions exactly like titles created with the classic Avid Title tool. As part of the save process, Marquee renders graphics files that the editing application imports and uses to create the title clip and title media.

This section provides a basic procedure for saving a single title to a bin in your Avid editing application. You can also save multiple titles to a bin in a single operation. When you close a title or quit Marquee, Marquee prompts you to save open titles if they have not previously been saved or if they have changed since they were last saved. You have the option to save these titles to a bin. For complete information on saving titles in Marquee, see "Saving Titles" on page 257.

A small number of the settings in the Render Options dialog box affect titles you save to a bin. You should not normally need to select any of these settings when rendering basic titles. For more information on rendering options, see "Selecting Options in the Render Options Dialog Box" on page 555.

To save the current title to an editing application bin:

1. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

2. Type a name for the title in the Title Name text box.

3. (Option) Select or deselect "Use Same Save Options as Previous Title, if available."

   "Use Same Save Options as Previous Title, if available" is selected if you have already saved a title to a bin during this session. When this check box is selected, the title is automatically saved in your editing application using the same bin, drive, and resolution settings as the previous save.

4. (Option) If you are saving only the current frame from a rolling, crawling, or animated title as a static title, select "Current Frame only (static title)."

   For more information, see "Saving the Current Frame from an Animated Title as a Static Title" on page 230.

5. Click OK.

   Marquee renders the temporary TIFF files that your editing application uses to create the title. Marquee displays a Rendering Progress message box indicating the time remaining for the render. (Depending on the complexity of the title and the speed of the render, the Rendering Progress message box might be visible only briefly.)

Basic titles usually render quickly. More advanced titles, especially animated titles, might take longer to render. You can cancel the render at any time by clicking Cancel in the Rendering Progress message box.

6. When the Rendering Progress message box disappears, switch to your Avid editing application, for example by doing one of the following:

   - Clicking in any visible part of the editing application.
   - Clicking the item for the editing application on the taskbar (Windows) or in the Dock (Macintosh).

   The Save Title dialog box is open in the editing application.

   If you are saving a title to a bin for the first time, or if you did not select "Use Same Save Options as Previous Title, if available" in the Save to Avid Bin dialog box, the Save Title dialog box appears, with the name that you typed for the title in Marquee displayed in the Title Name text box.

7. In the Save Title dialog box, do the following:

   a. Choose a bin, drive, and resolution from the pop-up menus.

      Your resolution choice might be affected by the format of your title and your project (DV or non-DV). For more information, see "Understanding Format Differences Between DV and Non-DV Titles" on page 227.

   b. Select or deselect Fast Save (Unrendered), depending on your needs.

      When Fast Save (Unrendered) is selected, the title clip is created in the bin but title media is not generated. You must create title media at a later point in your workflow.

c. If your editing application project supports multiple title formats, select the formats you want to use in the Title Formats area.

   Title format options are not available for crawling titles and animated titles.

d. Click Save.

Your editing application creates the media for the new title. The title appears in the bin you selected and is loaded into the Source monitor.

Chapter 4
Marquee Basics

This chapter contains basic information that you need to understand before you begin detailed work in Marquee. It includes explanations of important Marquee concepts, a complete description of the Marquee user interface, and information on setting Marquee preferences.

This chapter covers the following topics:

Main Features of Marquee

Marquee is designed around a unique object-based model for generating static and animated titles and graphics. With Marquee, you can:

- Create static, rolling, crawling, and animated titles from simple lower thirds to complex, multilayered title sequences.
- Save titles to bins in your Avid editing application and then work with them in exactly the same way that you work with titles created using the classic Avid Title tool.
- Enhance titles with graphic objects, such as solid colors, gradients, textured backgrounds, “over-the-shoulder” graphics, and images.

- Create visually stunning digital video effects (DVEs).
- Place text on or move text along an arbitrary path.
- Animate virtually all objects and their properties over time for complete control.
- Light titles using easily adjustable light-source objects.
- Use templates to ensure consistent appearances of different titles and to update existing titles easily.
- Use scripts to automate the creation of advanced title effects.
- Render titles and graphics to disk for use in other applications.

Marquee Workflow

The work that you do in Marquee generally involves the main steps outlined in the following procedure. For a simplified workflow that outlines the creation of basic titles for use in your Avid editing application, see "Basic Titling Workflow" on page 140.

1. Open Marquee.

   Marquee automatically creates a new title when you open it from your Avid editing application. The format of the new title is based on the current project in your editing application. All new titles have a default duration of 5 seconds.

   You can change a scene's format, including its dimensions and duration, at any time, without losing any information or detail in the title.

   For more information, see "Creating Titles" on page 242.

2. Create or import objects.

   You can type text and draw graphics using the built-in tools, import text files and artwork into a title, or create other objects such as DVEs and pages.

   For more information, see the chapter "Creating and Editing Objects" on page 277.

3. Use materials and lighting to change the appearance of the title's objects.

   You enhance the appearance of objects by using materials, such as solid colors, gradients, bitmap images, or animation files. You illuminate a title or specific objects within it by using lighting.

For more information, see the chapters “Working with Surfaces and Materials” on page 451 and “Working with Lights and Shadows” on page 497.

4. For animated work, adjust how properties change over time.

   By default, each object property (for example, its size or rotation) is static or stays the same value for the duration of the title. However, if you want a property to change value over time, you work in Animation mode or open the Timeline and adjust the property at different points in time. The property’s value changes automatically between these points in time. You can animate almost every property of an object.

   For more information, see the chapter “Animating Object Properties” on page 411.

5. Output the title.

   After you have designed the title and tested the animation (if used), you are ready for output. Depending on your needs, you might do one or more of the following:

   - Save the title directly to a bin in your Avid editing application.
   - Save the title as a Marquee (.mqp) file.
   - Render the title, including alpha channels for compositing in other applications, to disk in any of the image formats supported by Host Independent Image Protocol (HIIP®), Avid’s image translation technology.

   For more information, see “Saving Titles” on page 257, “Saving Titles to Your Avid Editing Application” on page 226, and the chapter “Previewing and Rendering” on page 553.

The Marquee Object Model

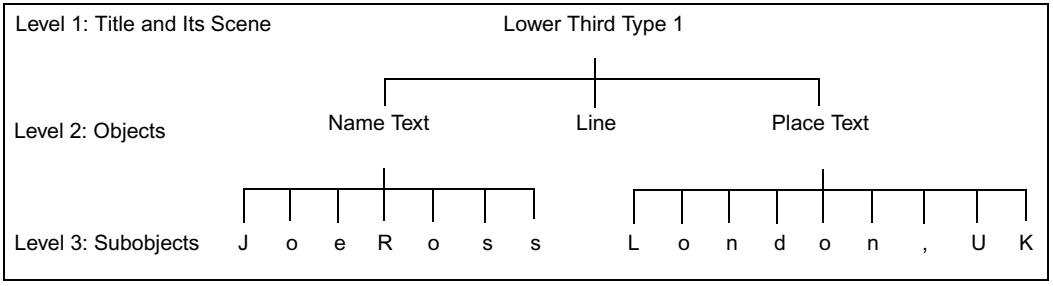
Before you start to work in Marquee, it is important to understand how Marquee organizes the elements with which you can work. Understanding these concepts helps you to work more efficiently and allows you to exploit the full power of Marquee, especially when you are creating complex titles with multiple objects or elaborate animation.

Marquee uses an object model. The titles you create are made up of different objects (such as a piece of text), and Marquee has rules to control how those objects relate to one another and behave. Marquee organizes objects in a

hierarchy and uses properties to define their behavior. Marquee also uses some specific terminology to refer to different types of title objects and different layers of the object hierarchy.

Object Hierarchy

In Marquee's hierarchical model, one kind of object can act as a container for one or more other objects. For example, a simple lower-third title might contain two text objects (typically a person's name and a location or company name) and a basic graphic (such as a line that separates the two pieces of text). Each of these three objects is contained within the title's scene or overall physical dimensions. Within each text object, however, there is another level of objects — the individual letters that make up the text. The following illustration shows the basic form of the resulting hierarchy:



Some hierarchical relationships in Marquee are automatically present. For example, a text object always has a set of individual letter subobjects. You can create other kinds of hierarchical relationships as you need them for a particular title. For example, you can create a series of objects that appear one after another in time: such objects are called pages and you can organize them inside another kind of object called a deck.

Think of the object hierarchy as being similar to the structure of folders and files on your computer system, which is often represented as a branching list (for example, in Windows file management displays). The Layers window in Marquee allows you to view a title in just this way — you can expand an object to see the objects contained within it.

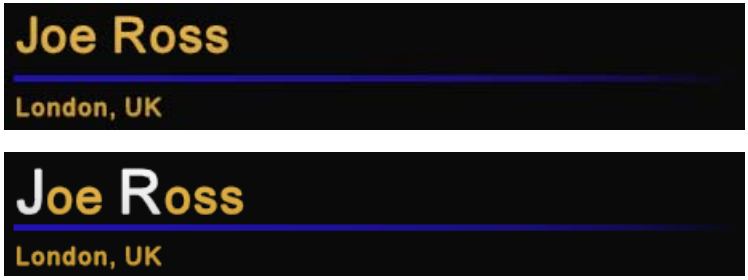
Another way to think of the object hierarchy is as a family tree. In the example illustrated above, for instance, you can think of the Name text object as being a “parent” and each of the individual letters in that name as being a “child.” This family tree comparison is particularly helpful for understanding how the properties of objects interact.

Object Properties

Each object in a title has a set of properties that define its appearance. A line, for example, might have a specific thickness and a specific surface color. Properties can remain the same for the length of a title, or they can change over time. You make adjustments to property values using controls in several of Marquee’s windows.

By default, an object that is contained within another object has the same properties as its container: it inherits properties from its parent. In the lower-third example, if the Name text object uses the Arial font and a gold color, then all the individual letters in the name “Joe Ross” also use that font and color.

However, since each individual letter is a separate object, you can change some of the properties for just one letter. For example, you might make the uppercase letters in the name larger and change their color. Those specific properties of the letters will change, while any other properties (such as the font) continue to be inherited from the parent. Here’s our example title before and after this adjustment.



The more complex the title, the more important and the more powerful these object relationships become. For example, you could create a piece of text and then animate each letter individually so that each one flies onto the screen from a different direction. Because most of the properties of each letter are

inherited from the parent text object, you can concentrate on animating the movement of the letters without affecting such properties as font or color. Once your animation is set up, if you decide to change the font or color of the text, you can quickly make that change to the whole text object without disturbing the movement of the letters.

Object Model Terminology

The following table defines the most important terms that relate to the Marquee object model.

Definitions of Object Model Terms

Term	Definition
Title	A distinct piece of work created in Marquee. A title might be as simple as a single static piece of text or as complex as a 3D animation with dozens of moving objects. A title is the overall conceptual container for all the elements within it. When you save a title, you save all the individual properties of all objects and subobjects. For more information on creating titles, see the chapter "Creating, Managing, and Viewing Titles" on page 241.
Scene	The viewable area of your finished title. The dimensions of the scene are based on your output format (for example, 720 x 486 for NTSC video). The scene is always the master container that provides the context for the rest of a title's object hierarchy. It can directly contain only two kinds of objects: lights and layers. While you are creating a title in Marquee, you can move objects into the adjustment area beyond the edges of the scene, for example, when animating a fly-on. By definition, however, you cannot see beyond the edges of the scene in a finished title. For information on defining the size of the scene, see "Title Duration and Title Formats" on page 243.
Layer	A container that is the same size as the scene and that contains one or more component objects such as text or graphics. You use layers to organize objects in space. Layers can be 2D or 3D. 2D layers cannot intersect one another, while 3D layers and their contents can intersect in three-dimensional space. Marquee creates a new title with a single 2D layer, and for many simple titles this is the only layer you need. For more complex work, you can create more 2D or 3D layers to control how groups of objects stack or intersect. For more information on working with layers, see the chapter "Working with Layers" on page 403.

Definitions of Object Model Terms (Continued)

Term	Definition
Deck	A container for pages. Unlike layers, decks can be of a specific size and duration. By default, a deck is created with a single page inside it. You can create additional pages that will appear one after another over time. For more information on working with decks, see the chapter "Working with Decks and Pages" on page 389.
Page	A container that is the same size as the deck that contains it, and that contains one or more component objects such as text or graphics. You typically use pages to contain groups of objects that you want to appear for a specific period of time, but you can also use them to help you position groups of objects or create complex movement. For more information on working with decks, see the chapter "Working with Decks and Pages" on page 389.
Object	A single element within a title. Text, graphics, paths, digital video effects (DVEs), decks, pages, and layers are all types of objects. For more information on working with objects, see the chapter "Creating and Editing Objects" on page 277.
Subobject	An object that is contained within (is the child of) another object. For example, any objects within a page are subobjects of that page. A text object always has a series of subobjects — the individual letters, numbers, and symbols that make up the text.

Marquee Libraries

Marquee libraries store elements that you can use to enhance the look of your titles and to speed up or even automate the process of creating a title. For example, the Textures library stores graphics and animation files that you can use to modify the appearance of title objects.

Each Marquee library has an area that stores elements supplied by Avid. You can also create or import your own library elements and store them in Marquee libraries.

Library Types

The following table describes the five library types available in Marquee.

Marquee Library Types

Library	Description
Styles	Contains saved sets of property values that you can apply to an object. This allows you to modify several aspects of the look of a title object in a single operation. For example, you might have a style that contains text properties such as font, font size, and kerning. For more information, see the chapter "Working with Styles" on page 523.
Materials	Contains saved sets of property values that you can apply to the surface of an object. For example, you might have a material containing property values that create a metallic reflective surface. For more information, see the chapter "Working with Surfaces and Materials" on page 451.
Textures	Contains graphics (image or animation) files that you can apply to the surface of an object. For example, you might apply an image that makes the surface of an object look like stone or wood. For more information, see the chapter "Working with Surfaces and Materials" on page 451.
Templates	Contains files that define complete objects that can be added to a title. A template can include any number of title objects and contains complete information for the formatting, layout, and behavior of those objects. When you add a template to a title, you add all the objects defined in the template to any existing objects in the title. You can apply more than one template to the same title; each new template adds more objects to the title. For example, you might use one of the Avid-supplied Rolling Title templates to create a standard rolling title. For more information, see the chapter "Working with Templates" on page 531.
Scripts	Contains script files that automate complex title object behaviors or repetitive title creation operations. For example, you might use the "typeon" script to have text appear on the screen one character at a time, as though it were being typed. For more information, see the chapter "Working with Scripts and the AutoTitler" on page 541.

Library Folders

Each Marquee library has three top-level folders: User, Site, and Avid. The Styles, Materials, and Textures libraries also have a folder for each currently open title. The followng table describes each folder.

The library folders are an organizing device and do not directly represent the actual locations on your system where library elements are stored. For example, Marquee does not create actual folders with the names User Templates or Site Styles. Instead, library folders are linked to actual locations on your system that might vary from user to user.

Library Folders

Folder Type	Description
User	These folders provide storage for library elements associated with a specific user for your Avid editing application. Contents vary depending on which user you select in the Select User and Project dialog box in your editing application. Elements that you place in User folders are saved in a specific folder location on your system. You cannot change this location. On Windows, the folder is located at: *drive letter*:\Avid\Avid *Editing Application*\Avid Users*UserName*\MarqueeUserFiles On the Macintosh, the default folder is located at: *drive name*/Users/*UserName*/Library/Preferences/Marquee User Files If you move the Marquee User Files folder to the same location on another *UserName* branch, your Marquee User folder data is available to Marquee when you are using that user name in your editing application. This might be useful if you need to create a new user on your editing application and want your existing Marquee data to be available. If you move the *UserName* folder to the Avid Users (Windows) or /Users (Macintosh) branch on another system, your Marquee User folder data is available to Marquee on that system in the same way that your Avid editing application User settings are available to your editing application. For more information, see "Adjusting General Preferences" on page 210.

Library Folders (Continued)

Folder Type	Description
Site	These folders provide storage for library elements that are available to all users at this site. Elements that you place in Site folders are saved in a default folder location unless you set a different location. On Windows, the default folder is located at: *drive letter:*Program Files\Avid\Avid *Editing Application* On the Macintosh, the default folder is located at: *drive name*/Users/Shared/Marquee/SiteFiles You might want to change the location Marquee uses to save Site elements. For example, you could use a Marquee folder inside the Site_Files folder used by your editing application for its site files. If you then move the Site_Files folder to another Avid editing application site, your Marquee site information is available to Marquee on that site in the same way that your Avid editing application Site settings are available to your editing application. For information on setting a different location, see "Adjusting General Preferences" on page 210.
Avid	Library elements in Avid folders are supplied by Avid. Avid-supplied elements are read-only and cannot be modified by Marquee users. You cannot save new elements to Avid folders.
Title	Library elements in title-specific folders (available for the Styles, Materials, and Textures libraries) are saved as part of the file information for the current title. Title-specific library elements are available only when that title is open in Marquee.

Measurement of Time and Distance in Marquee

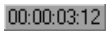
It is important to understand how Marquee measures both the duration of titles in time and the distances between points in space. While the measurement of time (in hours, minutes, seconds, and frames) will be familiar to most film and video editors, Marquee's measurement of distance uses a method that might be less familiar.

Titles created in Marquee are scalable in terms of both time and distance. This means, for example, that when you change the length of an animated title, say from 5 seconds to 10 seconds, all the animated events in the title scale to fit the new overall duration. If a text object flies on in the first 1 second of the 5-second title, it will fly on in the first 2 seconds of the 10-second title.

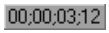
Similarly, if you create a title using dimensions based on a 4:3 aspect ratio, and then change the dimensions so that they are based on a 16:9 aspect ratio, the objects in the title will scale so that they occupy the same relative amount of space within the new dimensions. If an object was 15% of the height of the scene in the 4:3 version, it will still occupy 15% of the height of the scene in the 16:9 version.

Understanding Time Display

Text, geometric shapes, and other objects exist at specific points in time (relative to the title's duration). Time is expressed and displayed in one of the following forms:



- Non-drop-frame timecode (*hh:mm:ss:ff*)



- Drop-frame timecode (*hh;mm;ss;ff*)

- Frame count only

Drop-frame timecode drops two frame counts every minute on the minute except the tenth minute.

In each timecode form, *hh*=hours, *mm*=minutes, *ss*=seconds, and *ff*=frames (based on the current frame rate), with the start of the title being 00:00:00:00 (non-drop-frame) or 00;00;00;00 (drop-frame).

Frame numbers are based on the current frame rate (frames per second or fps); for example, 29.97 fps for NTSC video, 25 fps for PAL video, or 24 fps for film.

Time information is displayed in two locations:

- The Time Display button in the status bar of the Monitor window

  For more information, see "Status Bar" on page 190.

- The Time track of the Timeline window

  For more information, see "Working in the Timeline Window" on page 413.

For information on moving from one point in time to another in a title, see "Moving Through Time" on page 262.

For information on changing the frame rate or the time display type of a title, see "Adjusting General Preferences" on page 210.

Understanding Distance Measurement

Marquee is a resolution-independent application, which means that your titles can be targeted for video, film, multimedia, print, or any number of resolutions. The dimensions of text or graphics you create in a scene are based on the scene's dimensions. You can change the scene's dimensions, and the scene's contents scale accordingly. For example, if you create an object whose height is 10% of the height of the scene and then change the scene's dimensions, the object will resize so that its height remains 10% of the height of the scene.

Marquee always uses percentages to calculate distances internally. However, by default, the unit of measurement in which most distance measurement values display in the Marquee user interface is the point. Points are units of measurement that originated in typography and that are common in many video and graphics applications; one point is equivalent to the height of one image pixel. For example, the default font size in Marquee is 10% of the height of the scene. In an NTSC title, this font size displays as 48.6 points in the Font Size text box; in a PAL title, it displays as 57.6 points.

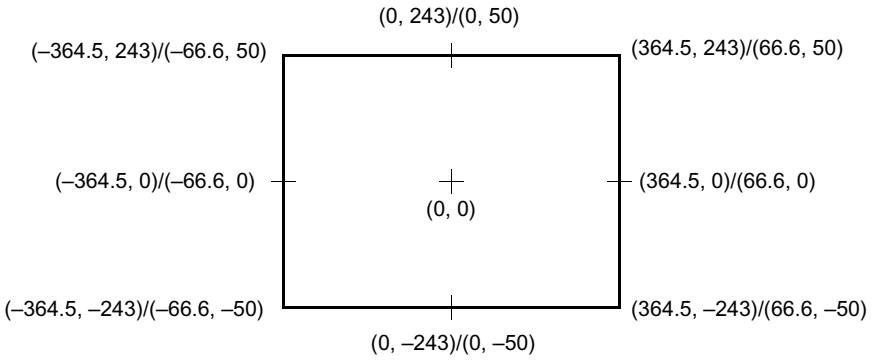
You can change the unit of measurement that appears in the user interface for most distance measurements to pixels (which results in the same values as points) or to percentages, which directly represents the values Marquee uses internally. For example, when the unit of measurement is percentages, the default font size displays as 10.00.

The Shadow X offset and Y offset values that appear in the Shadow Properties window and in the Quick Titles Properties window always display as percentage values; you cannot change them to points or pixels.

Marquee uses the exact center of the scene as the origin (0,0) point for its coordinate system. Since the scene's height (Y axis) is always equal to 100 percentage units, a point at the top edge of the scene has a coordinate value of (0, 50) while a point at the bottom edge of the scene has a coordinate value of (0, –50).

The range of values for the X axis is dependent on the aspect ratio of the scene. For a 4:3 aspect ratio scene, the width of the scene is 133.3 percentage units.

The following figure shows the (x,y) coordinate values at various locations in an NTSC-sized (4:3 aspect ratio) scene, using both points and percentages as the unit of measurement.



To change the unit of measurement:

1. Do one of the following depending on your operating system:
   - (Windows) Select File > Preferences > Current Title.
   - (Macintosh) Select Marquee > Preferences > Current Title.

   The Title Preferences dialog box appears.
2. Click the User Interface tab.
3. Select an option from the “Unit of measure” list.

   For more information on available options, see the table “Title Preferences – User Interface Tab” on page 254.
4. Click OK.

The Marquee User Interface

This section provides a complete overview of the Marquee user interface. It summarizes the purpose of each Marquee window and describes the information or controls available in that window. It also explains how to customize the Marquee user interface, how to use controls that are unique to Marquee, and how to get online Help for Marquee.

Understanding Marquee Windows

The Marquee user interface consists of a number of windows. Each window allows you to view a specific kind of information or provides you with a distinct set of controls.

By default, Marquee displays those windows that are most useful for creating and modifying basic titles. You can choose to display other windows and controls as you need them for more advanced work. You can customize the size and position of most windows. You can also save specific arrangements of windows and controls as toolsets. For more information, see "Controlling Window Display" on page 197 and "Toolsets" on page 198.

For an illustration of the Marquee interface in its default configuration, see "Getting Started with the Marquee Interface" on page 136.

The user interface and its default configuration are designed for a screen resolution of 1024 x 768. This is the recommended and most commonly used screen resolution for your editing application. If you plan to do complex work in Marquee, for example, extensive animation in the Timeline window, you might find it useful to increase the screen resolution before you begin your Avid editing application session. This will provide more space to expand Timeline tracks and view property curves. For information on changing screen resolution, see "Setting Your Screen Resolution" in the Help for your Avid editing application.

Monitor Window

The Monitor window is a title's main window and is the window where you see the objects in your title as they exist in the physical space of the scene. The Monitor window always displays the title at the current point in time.

In the Monitor window, you can adjust some of an object's properties. For example, you can drag an object to move it or select a different font size for a block of text from the toolbar.

If you are not in Animation mode, adjustments to properties that you make in the Monitor window affect the selected object for its entire duration in the title. If you are in Animation mode, your adjustments affect the object only at the current time in the title. For more information on animating properties over time, see the chapter "Animating Object Properties" on page 411.

The Monitor window requires OpenGL® video support to display correctly. If you are using a two-monitor system, your second monitor might not be able to display the Monitor window correctly, so you should not move the Monitor window onto the second monitor. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

Macintosh menu bar

The Monitor window contains the following areas:

- Menu Bar
- Toolbox
- Toolbar
- Viewing Area
- Status Bar

Menu Bar

On Windows, there is a menu bar at the top of the Monitor window that provides access to many Marquee commands. On the Macintosh, the menu bar is at the top of the entire screen and is not part of the Monitor window. The menus organize commands into logical groups, most of which follow standard operating system models. For example, the File menu contains commands for opening, closing, and saving titles.

You can also access menus in other parts of the Marquee interface. You can open shortcut menus throughout the Marquee interface, and on Windows the Timeline window has its own menu bar. For more information, see "Using Shortcut Menus" on page 208 and "Timeline Window" on page 196.

Toolbox

Along the left side of the Monitor window is the toolbox, a collection of tools that you can use in the title.

By default, Marquee displays a subset of the toolbox that includes the most useful tools for creating basic titles. You can modify this display to include the full set of tools.

You can use a single-key shortcut to select each tool. These shortcuts are listed in the following table.

To display the full set of tools:

- Select View > Toolbox > Full.
- Select View > All Toolbar Buttons.

  This command displays the full set of toolbox tools and also displays all of the toolbar buttons.

To display the simplified set of tools:

- Select View > Toolbox > Simplified.

The following table briefly describes each tool and directs you to more information.

Monitor Window Tools

Tool	Shortcut	Toolbox View	Description	For More Information
 	**A**	Full (hidden by default)	**Animation mode** — Allows you to make adjustments to an object at the current time without affecting the object at other times in its duration The tool appears red when you are in Animation mode.	See "Understanding Animation Mode" on page 411.
	**E**	Simplified (visible by default)	**Edit tool** — Selects, translates (moves), and scales objects	See "Modifying Objects" on page 296.
	**T**	Simplified (visible by default)	**Text tool** — Creates and edits text objects and text along a path	See the chapters "Working with Text" on page 323 and "Placing and Moving Text on Paths" on page 441.
	**R**	Simplified (visible by default)	**Rotate tool** — Rotates objects in three-dimensional space	See "Rotating Objects" on page 300.
	**L**	Simplified (visible by default)	**Light tool** — Adjusts the light sources	See the chapter "Working with Lights and Shadows" on page 497.
	**Y**	Full (hidden by default)	**Page tool** — Creates new decks of pages	See the chapter "Working with Decks and Pages" on page 389.
	**S**	Simplified (visible by default)	**Shape tool** — Creates and deforms free-form shapes and paths	See "Creating Polygons and Curved Shapes" on page 364.
	**M**	Simplified (visible by default)	**Rectangle tool** — Creates square and rectangular shapes	See "Creating Squares and Rectangles" on page 362.
	**N**	Simplified (visible by default)	**Ellipse tool** — Creates circle and elliptical shapes	See "Creating Circles and Ovals" on page 364.
	**V**	Full (hidden by default)	**Tumble tool** — Views the scene or current layer from different angles	See "Viewing the Scene from Different Angles" on page 260.

Monitor Window Tools (Continued)

Tool	Shortcut	Toolbox View	Description	For More Information
	**H**	Full (hidden by default)	**Pan tool** — Changes the view in the Monitor window	See "Panning and Zooming" on page 258.
	**Z**	Simplified (visible by default)	**Zoom tool** — Changes the magnification of the Monitor window	See "Panning and Zooming" on page 258.

To select a tool, do one of the following:

- Click the tool.
- Press the tool's shortcut key.

A tool stays selected until you select a different one. Animation mode, however, behaves independently of the other tools. You can enter Animation mode and then select any other tool with which to work.

Toolbar

Along the top of the Monitor window and just below the menu bar is the toolbar, a collection of buttons that perform common functions. The toolbar buttons are grouped into sets that perform related functions.

You can show all toolbar buttons at the same time, or choose to show or hide each set of toolbar buttons. The sets of buttons that are most useful for basic titling work are visible by default. More advanced sets are hidden until you choose to display them.

You can also choose to reposition a set of buttons, either by docking it to a different edge of the Monitor window or by dragging it away from the edges of the Monitor window to create a small floating window that you can move around at your convenience.

To show all toolbar buttons:

- Select View > All Toolbar Buttons.

  This command displays the full set of toolbox tools and also displays all of the toolbar buttons.

To selectively show or hide a set of toolbar buttons:

- Select View > Toolbars > *toolbar set*.

To reposition a toolbar:

- Drag the toolbar away from its current location.

  If you release the mouse button away from the edges of the Monitor window, the toolbar becomes a floating window that you can move freely by dragging its title bar.

Text Editing toolbar as a floating window

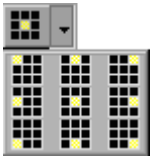
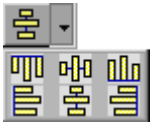
If you release the mouse button near an edge of the Monitor window, the toolbar will attach to that edge.

The following table describes each toolbar button and directs you to more information.

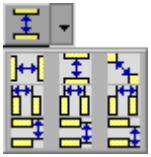
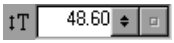
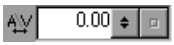
Monitor Window Toolbar Buttons

Toolbar Set and Button	Description	For More Information
Standard	Hidden by default	
	New — Creates a new document (title)	See "Creating Titles" on page 242.
	Open — Opens an existing title	See "Opening Titles" on page 250.
	Save — Saves the active title using its current name	See "Saving Titles" on page 257.
Guides	Visible by default	
	Safe Action/Title — Shows or hides the safe action and safe title guides	See "Showing the Safe Action and Safe Title Areas" on page 269.
	Grid — Shows or hides the grid points	See "Showing the Grid" on page 271.

Monitor Window Toolbar Buttons (Continued)

Toolbar Set and Button	Description	For More Information
	Background — Shows or hides the reference background	See "Working with Backgrounds" on page 273.
Object Layering	Hidden by default	
	Bring to Front — Moves the selected objects above all unselected objects	See "Stacking Objects" on page 284.
	Bring Forward — Moves the selected objects forward by one position	See "Stacking Objects" on page 284.
	Send Backward — Moves the selected objects backward by one position	See "Stacking Objects" on page 284.
	Send to Back — Moves the selected objects behind all unselected objects	See "Stacking Objects" on page 284.
Object Editing	Hidden by default	
	Group — Combines all selected objects into a single object	See "Grouping and Ungrouping Objects" on page 294.
	Ungroup — Ungroups all selected grouped objects	See "Grouping and Ungrouping Objects" on page 294.
	Lock — Prevents the selected objects from being manually edited	See "Moving Objects Within the Scene" on page 282.
	Unlock — Allows the selected locked objects to be manually edited	See "Moving Objects Within the Scene" on page 282.
	**Position** — Moves the selected objects to specific locations within the objects' container, taking into account the safe title guide	See "Positioning Objects at Specific Locations" on page 286.
	**Align** — Aligns the edges or centers of the selected objects	See "Aligning Objects Relative to Each Other" on page 288.

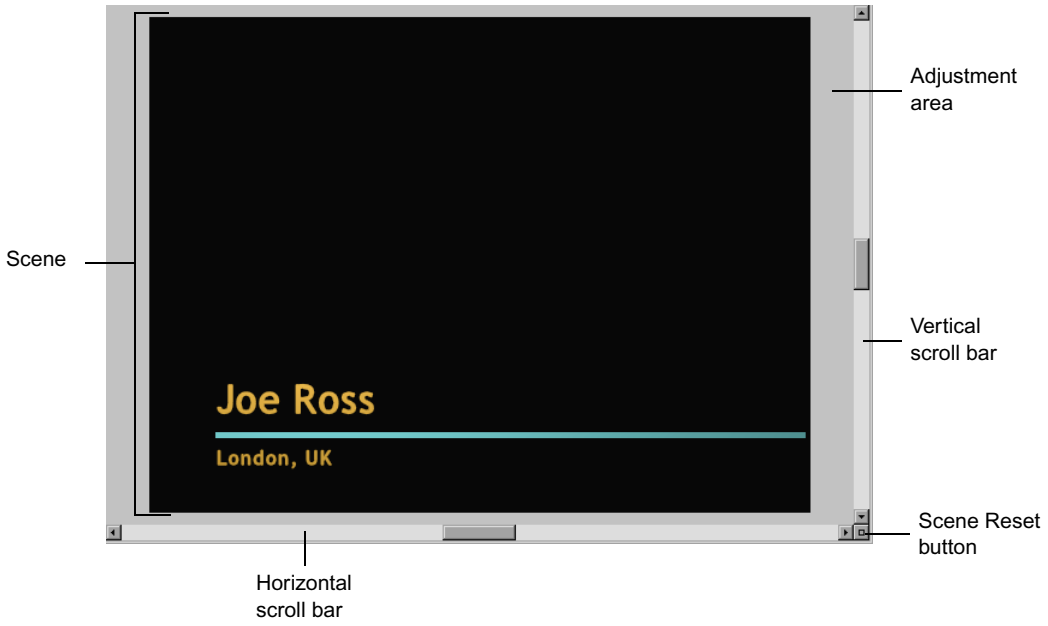
Monitor Window Toolbar Buttons (Continued)

Toolbar Set and Button	Description	For More Information
	**Distribute** — Distributes the selected objects evenly, either with respect to one another or within the context of their container	See "Distributing Objects" on page 289.
Main Color	Visible by default	
	**Main Base Color** — Changes the Base color of the Main surface of the selected objects	See "Changing the Base Color of Materials" on page 461.
Text Editing	Visible by default	
	**Font** — Sets the font for the selected objects	See "Changing Fonts and Font Sizes" on page 336.
	**Font Size** — Sets the font size for the selected objects	See "Changing Fonts and Font Sizes" on page 336.
	**Kerning** — Sets the space between characters in selected text	See "Adjusting Kerning" on page 338
Text Justification	Visible by default	
	**Align Left** — Aligns the selected text along the left edges of their columns	See "Aligning Text into Columns" on page 343.
	**Align Center** — Aligns the selected text horizontally within their columns	See "Aligning Text into Columns" on page 343.
	**Align Right** — Aligns the selected text along the right edges of their columns	See "Aligning Text into Columns" on page 343.
	**Justify** — Aligns the selected text along both left and right edges of their columns, adding equal space between words	See "Aligning Text into Columns" on page 343.
	**Equally Space** — Aligns the selected text along both left and right edges of their columns, adding equal space between characters	See "Aligning Text into Columns" on page 343.

Monitor Window Toolbar Buttons (Continued)

Toolbar Set and Button	Description	For More Information
Views	Hidden by default	
	Scene View — Shows all objects in the scene	See "Viewing the Scene from Different Angles" on page 260.
	Layer Left View — Shows the left side of the current layer	See "Viewing the Scene from Different Angles" on page 260.
	Layer Front View — Shows the front side of the current layer	See "Viewing the Scene from Different Angles" on page 260.
	Layer Right View — Shows the right side of the current layer	See "Viewing the Scene from Different Angles" on page 260.
	Layer Top View — Shows the top side of the current layer	See "Viewing the Scene from Different Angles" on page 260.
Roll/Crawl	Visible by default (alongside the toolbox on the left of the Monitor window)	
	Adjust Roll — Creates an empty Rolling text object if no text object exists, or adjusts an existing text object so that it can be saved as an Avid Rolling Title	See "Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357.
	Adjust Crawl — Creates an empty Crawling text object if no text object exists, or adjusts an existing text object so that it can be saved as an Avid Crawling Title	See "Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357.

Viewing Area



The viewing area of the Monitor window divides into two parts. The scene represents the viewable area of your finished title. It either displays black or is filled with a background image. Outside the scene is a gray adjustment area. You can position title objects in this area while you are creating a title (for example, to set the starting point of an object that flies into the scene), but this area is not visible in the finished title.

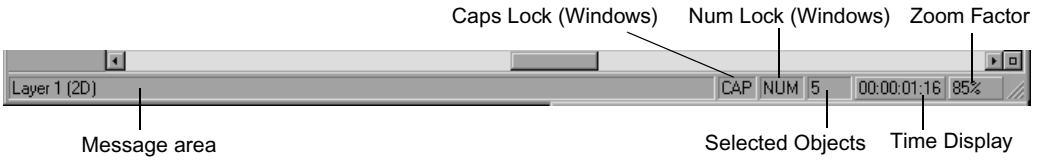
In addition to these display areas, the viewing area has the following controls:

- Standard Windows scroll bars, for scrolling the title vertically and horizontally.
- A Scene Reset button, located in the bottom right corner. Click this button to quickly reset the scene if you have panned, zoomed, or tumbled your title to a confusing angle or position. The title is centered in the Monitor window, returns to Scene view, and is zoomed to fit in the viewing area.

Status Bar

Along the bottom of the Monitor window is the status bar, an area that displays various types of information as you work. For example, it can display information about the current layer, or information about whether a script has run successfully.On Windows, the status bar also displays information about the tool or menu command under the pointer.

The status bar also contains Time Display and Zoom Factor buttons. These buttons display information about the current position in time and the current level of magnification and also allow you to change these values.



Monitor Window Status Bar Fields

Field	Description
Message area	This area displays the name and type of the current layer or (on Windows) information about the current tool, menu command, or operation.
Caps Lock (Windows only)	This area displays “CAP” when the Caps Lock key is selected.
Num Lock (Windows only	This area displays “NUM” when the Num Lock key is selected.
Selected Objects	This area displays the current number of selected objects in the scene.
Time Display	This button displays the current time, indicating the location in the entire title that you are viewing in the Monitor window. For information on changing the current time from the status bar, see “Browsing Through Titles” on page 263.

Monitor Window Status Bar Fields (Continued)

Field	Description
Zoom Factor	This button displays the current magnification level, represented as a percentage of the original size. For example, 100% is the actual size, 125% is 25 percent larger, and 50% is half the actual size. For information on changing the magnification from the status bar, see "Panning and Zooming" on page 258.

Library Windows

Library windows display the contents of Marquee libraries organized in folders. By default, Marquee displays all five libraries as tabs within a single window.

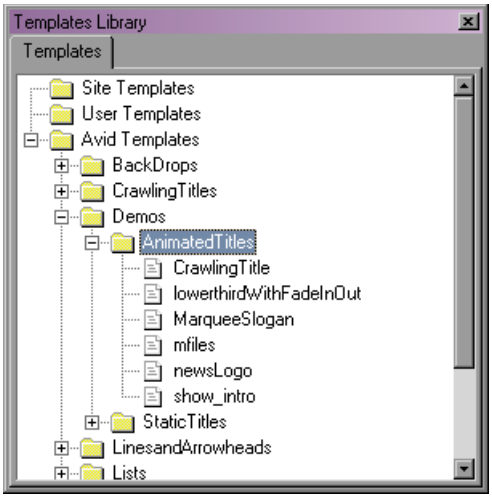
For an introduction to the concept of Marquee libraries and an explanation of the folder types, see "Marquee Libraries" on page 173.

You can work with the folders in Library windows and the elements that they contain in much the same way that you work with folders and files in standard Windows file management windows. You can copy or move a style, texture, or material from one folder in a window to another, for example, to make an item in the User folder available to all users by placing it in the Site folder. You can rename or delete individual elements or folders that you have created.

In the Templates Library window, you can create new folders within the top-level folders. For more information, see "Saving and Deleting Templates" on page 532.

Some of these operations are restricted for some folders and elements. All Avid folders are read-only, and you cannot modify them or the elements within them in any way. Other top-level folders, such as User and Site folders, cannot be renamed.

The following illustration shows a typical Library window.



For information on opening, closing, repositioning, and resizing windows, see "Controlling Window Display" on page 197.

To copy or move a library element to a different folder in a Library window:

1. Click the element to select it.
2. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the window, and then select one of the following:
   - Copy, to copy the element to another folder.
   - Cut, to delete the element from its current location and move it to another folder.
3. Click the folder or an element within the folder in which you want to copy the selected element.
4. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the window, and select Paste.

   If an element of the same name exists in the target folder, the name of the copied or moved item is incremented by one. For example, if you try to copy a style named Fly-In 2 into a folder that already has a Fly-In 2 style, the copied style is named Fly-In 3.

To rename a folder or element:

1. Click the folder or element that you want to rename.
2. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the window, and select Rename.
3. Type a new name for the folder or element, and then press Enter.

To delete a folder or element:

1. Click the folder or element that you want to delete.
2. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the window, and select Delete.

   Marquee deletes the folder or element.

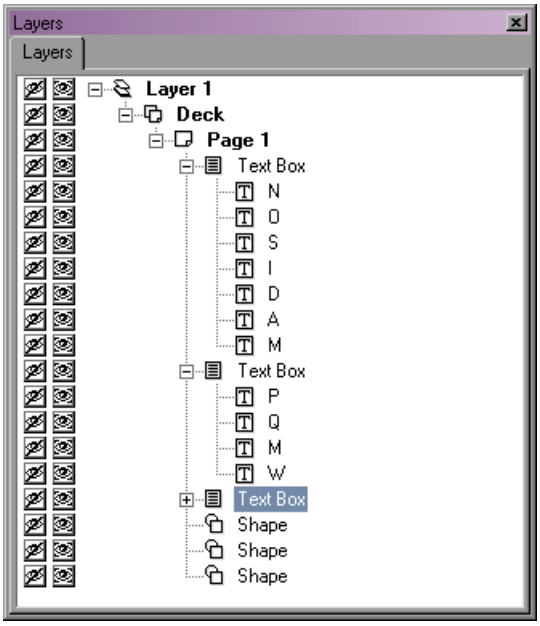
Layers Window

The Layers window displays the object hierarchy of the current title in a branching list that you can expand and contract. The top level of the hierarchy consists of one or more two-dimensional or three- dimensional layers. All objects in a scene exist in a layer container.

The objects in the upper layers appear above objects in the lower layers. Each layer is processed independently. The name of the current layer, the one in which new objects are created, appears bold.

You can make changes to your title in the Layers window as well as simply view its organization. For example, you can create container objects to control how other objects interact in two-dimensional or three-dimensional space, move objects from one layer to another, and rearrange the order of layers. For more information on layers, see the chapter “Working with Layers” on page 403.

The following illustration shows the Layers window.



For information on opening, closing, repositioning, and resizing windows, see “Controlling Window Display” on page 197.

Properties Windows

The Properties windows display the properties (settings) — for example, the name, location, orientation, appearance, and shadow — of the selected objects at the current time in the title and provide controls for modifying those properties. Each Properties window contains a group of related properties. For example, the Light Properties window contains properties that control the behavior of light sources.

The Quick Titles Properties window is a special Properties window that displays all the properties that are most useful for creating basic titles in a single location. The Quick Titles Properties window displays by default.

If you are not in Animation mode, adjustments to properties that you make in the Properties windows affect the selected object for its entire duration in the title. If you are in Animation mode, your adjustments affect the object only at the current time in the title. For more information on animating properties over time, see the chapter “Animating Object Properties” on page 411.

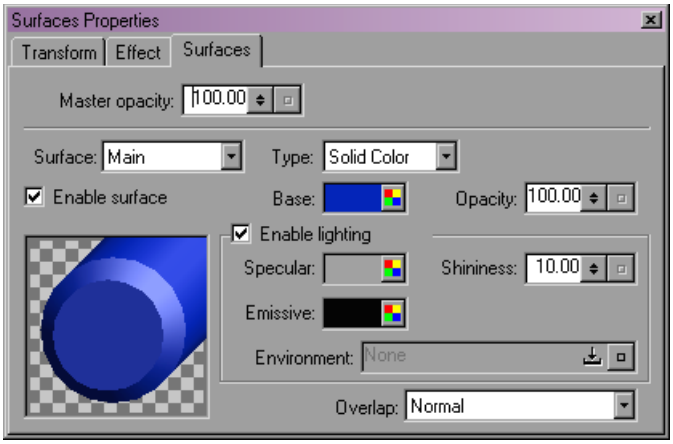
Using the controls in the Quick Titles Properties window, you can modify the color and appearance of text and other objects, enable lighting for an object, and create shadows. For more information on editing properties in the Quick Titles Properties window, see “Modifying Basic Titles” on page 143.

Since all the properties in the Quick Titles Properties window are also available in other property categories, you do not need to display the Quick Titles Properties window at all times. You will probably find the Quick Titles Properties window convenient for basic title work but might prefer to hide it when you are doing more advanced titling.

The following Properties windows are available:

- Info
- Text
- Transform
- Effect
- Surfaces
- Shadow
- Render
- Light
- Path
- DVE
- Quick Titles

The following illustration shows a typical Properties window.



For information on opening, closing, repositioning, and resizing windows, see “Controlling Window Display” on page 197.

For information on using common controls found in the Properties windows, see “Using Common Marquee Property Controls” on page 203.

For more information on all the individual property controls available in the Properties windows, see “Properties Windows and Their Controls” on page 305.

Timeline Window

The Timeline window lets you see how the objects in your title exist and relate to one another over time. In the Timeline window, you can adjust the starting time, ending time, and duration of objects, and hide or show objects. You can specify the current time, which controls what appears in the Monitor window.

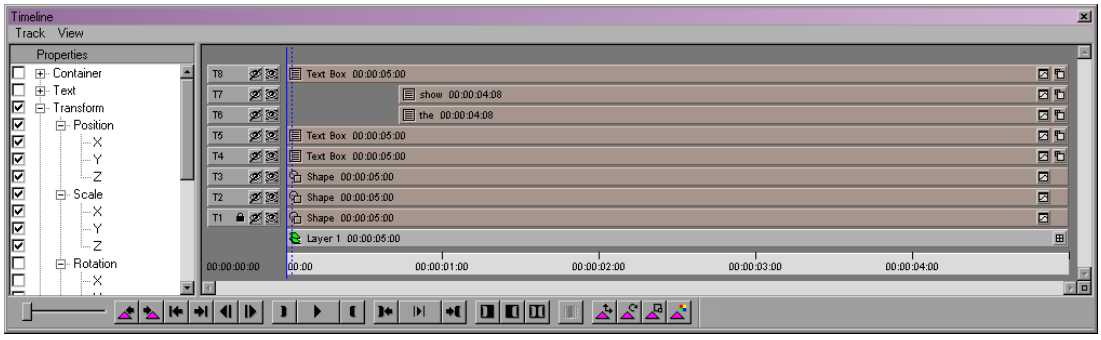
Controls in the Timeline window are also important when animating title objects over time. You can modify curves in the Timeline to change the individual properties for a title object at different points in time. For more information on the Timeline window and animating properties, see the chapter “Animating Object Properties” on page 411.

The Timeline window requires OpenGL video support to display correctly. If you are using a two-monitor system, your second monitor might not be able to display the Timeline window correctly, so you should

not move the Timeline window onto the second monitor. For more information, see “Understanding the Video Display for Marquee and Your Avid Editing Application” on page 219.

To open the Timeline window, do one of the following:

- Select Window > Timeline.
- Press Ctrl+T (Windows) or ⌘+T (Macintosh).



To close the Timeline window, do one of the following:

- Click the window’s Close button.
- Press Ctrl+T (Windows) or ⌘+T (Macintosh).

Controlling Window Display

You can open, close, and reposition Marquee windows to suit your workflow and preferences. You can also resize most windows.

You can display, modify, and save specific arrangements of windows and controls using the Toolsets feature. For more information, see “Toolsets” on page 198. You can also customize the display of toolbar and toolbox items within the Monitor window. For more information, see “Monitor Window” on page 180.

To open a window, do one of the following:

- For most Properties and Library windows, select Window >Properties > *window name* or Windows > Library > *window name*.
- For other windows, select Window > *window name*.

For more details on each window type, see the section for the window type earlier in this chapter.

- For Properties and Library windows, right-click (Windows) or Ctrl+click (Macintosh) the tab for an open Properties or Library window, and select *window name*.

To close a window, do one of the following:

- Click the window's Close button.
- For Properties and Library windows, right-click (Windows) or Ctrl+click (Macintosh) the window's tab, and select Close *window name*.

To reposition a window:

- Drag the window by its title bar, and release the mouse button when the window is in the location you want.

If you are using a two-monitor system, depending on your OpenGL video support, some Marquee windows might not display correctly if you move them onto your second monitor. For more information, see *"Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.*

To resize a window:

- (Windows) Drag one of the edges or corners of the window.
- (Macintosh) Drag the size control in the bottom-right corner of the window.

You cannot resize Properties windows.

Toolsets

Marquee allows you to use toolsets that operate in much the same way as the toolsets in your Avid editing application.

A toolset is a record of which Marquee windows and controls are visible on the screen, as well as their size and position. When you select a toolset, the arrangement of windows and controls associated with that toolset displays on the screen. For example, the Avid-supplied Basic toolset displays those windows and controls that are most useful when you are doing basic titling work.

Working with Toolsets

Marquee includes several Avid-supplied toolsets that provide useful arrangements of windows and controls for different kinds of titling work. You can modify each of these toolsets if you want to change any aspect of the arrangement. For example, you can display the Basic toolset, resize or reposition windows, and then save the Basic toolset so that it remembers your reorganized window arrangement. You can also restore an Avid-supplied toolset that you have modified to its default arrangement. The table "Descriptions of Avid-Supplied Toolsets" on page 202 describes the available predefined toolsets.

Avid-supplied toolsets are designed for a screen resolution of 1024 x 768 pixels. If you are working at a different resolution and you select an Avid-supplied toolset, Marquee attempts to resize the Monitor and Timeline windows appropriately, but the overall arrangement of windows and controls might not be ideal. If you often work at a resolution other than 1024 x 768, consider modifying the Avid-supplied toolsets, or creating new, resolution-specific toolsets, for example, Basic1280By960.

You can create and name new toolsets. For example, if you do a lot of advanced animation in the Timeline window, you might want to create a toolset (perhaps named Large Timeline) that contains a full-screen view of the Timeline window.

Each Avid-supplied toolset has an associated function key that allows you to switch to that toolset by pressing the function key. You can assign a function key to any new toolset that you create. You can also change the function key assignment for any toolset, including the Avid-supplied toolsets.

To display a toolset, do one of the following:

- Select Toolsets > *toolset name*.
- Press the function key associated with the toolset.

  Marquee displays the arrangement of windows and controls for that toolset.

To modify a toolset:

1. Select Toolsets > *toolset name*.

   Marquee displays the arrangement of windows and controls for that toolset.

2. Adjust windows and controls to create the modified arrangement you want.

   For example, you might display additional windows (or tabs within windows), resize or reposition windows, or display a different set of toolbars.

3. Select Toolsets > Save Current.

   Marquee modifies the toolset to save the arrangement of windows and controls you created in step 2. The modified arrangement will display when you next select Toolsets > *toolset*.

To restore a modified Avid-supplied toolset to its default values:

1. Select Toolsets > *toolset name*.

   Marquee displays the arrangement of windows and controls for that toolset.

2. Select Toolsets > Restore Current to Default.

   Marquee removes the modified definition for that toolset and restores the original Avid-supplied definition, including the original function key association. The screen display updates immediately to show the default arrangement of windows and controls for the toolset.

To create a new toolset:

1. (Option) Select Toolsets > *existing toolset name*.

   Marquee displays the arrangement of windows and controls for that toolset and you can use this arrangement as a starting point for creating your new configuration.

2. Adjust windows and controls to create the new arrangement you want to save as a toolset.
3. Select Toolsets > Save As.
4. Type a name for the new toolset in the Name text box.
5. (Option) Type a function key number in the Function Key text box to associate a function key with the toolset.

   For example, typing 7, or pressing the F7 function key itself, associates the F7 function key with the toolset.

(Windows only) You cannot associate the F1 function key with a toolset since the F1 key is reserved for Help.

6. Click OK.

   Marquee creates a new toolset and adds it to the list of available toolsets in the Toolsets menu.

To reassign the function key association for a toolset:

1. Select Toolsets > *toolset name*.

   Marquee displays the arrangement of windows and controls for that toolset.

2. Select Toolsets > Save As.
3. Type a new function key number in the Function Key text box to associate a new function key with the toolset.

   For example, typing 7, or pressing the F7 function key itself, associates the F7 function key with the toolset.

(Windows only) You cannot associate the F1 function key with a toolset since the F1 key is reserved for Help.

4. Click OK.

To delete a toolset:

1. Select Toolsets > *toolset name*.

   Marquee displays the arrangement of windows and controls for that toolset.

2. Select Toolsets > Delete Current.

   Marquee deletes the toolset and removes it from the list of toolsets in the Toolsets menu.

You cannot delete Avid-supplied toolsets. The Delete Current menu command is not available from the Toolsets menu when an Avid-supplied toolset is active.

Descriptions of Avid-Supplied Toolsets

The following table describes the windows and controls that display for each of the four Avid-supplied toolsets.

Avid-Supplied Toolsets

Toolset	Default Function Key	Description
Basic	F2	Displays the most useful tools for basic titling work, as follows: • Monitor Window with a basic set of toolbar buttons and the Simple set of toolbox controls • Quick Titles Properties window • A second Properties window containing Transform and Effects tabs • Library window containing Styles, Materials, Textures, Templates, and Scripts tabs • Layers window
BasicAnimation	F4	Displays the most useful tools for basic title animation, as follows: • Monitor Window with a basic set of toolbar buttons and with the Full set of toolbox controls • Timeline window • Quick Titles Properties window
BigMonitor	F3	Displays only the Monitor window, sized to fill the primary monitor.
ExpertAnimation	F5	Displays a complete set of windows and controls, providing access to everything you need for advanced title animation: • Monitor Window with a complete set of toolbar buttons and the Full set of toolbox controls • Timeline window • Properties window containing all of the Properties tabs except for the Quick Titles tab • Library window containing Styles, Materials, Textures, Templates, and Scripts tabs • Layers window

How Marquee Saves Toolset Information

Marquee saves toolset information to the same location used to save User library files for the current user.

For more information on the User save location and on moving Marquee data between users or systems, see “Library Folders” on page 175 and “Adjusting General Preferences” on page 210.

Marquee remembers which toolset is active when you exit Marquee and displays that toolset when you begin a new Marquee session. When you first start a Marquee session as a new user, Marquee displays the Basic toolset.

Using Common Marquee Property Controls

Each type of control in Marquee has its own way of selecting values. This section provides general information about using controls and describes how the more common controls function. Most of these controls are in the Properties windows, though some are duplicated in the Monitor Window toolbars.

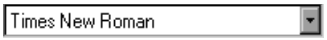
Availability of Controls

Property controls that are not appropriate for an object are not available. For example, all the properties in the Text Properties window are unavailable (appear dimmed) when an object other than a text object is selected.

If you select multiple objects that have different values for the same property (for example, two objects of different sizes), the property’s control displays an indeterminate setting. In this setting, numeric text fields are blank, option labels look different, and lists do not show a selected item. Once you change the control to a valid or different setting, all selected objects use that new setting.

Selecting Items from Lists

Some properties, such as an object’s font, let you select an item from a list of items. These lists work in the same manner as lists in other standard applications. A text box displays the currently selected item and an arrow allows you to open the full list of items.



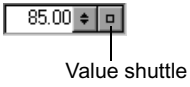
To change the value for a property that uses a list, do one of the following:

- Click the arrow to view the list of items, and then click the item you want to use.
- With the text box active, either press the Up Arrow and Down Arrow keys to scroll to the value.
- (Windows only) Press the first letter of the value (for example, press the C key for the Courier font).

Adjusting Numeric Values

Some properties, such as an object's position in the scene, let you specify a value from a numeric text box.

Numeric values use the current unit of measurement and are accurate to two decimal places. (If you type more than two digits after a decimal point, Marquee will round your entry to two decimal places.)



To change the value for a numeric property that uses a text field, do one of the following:

- Type a new value in the text box, and then press Enter (Windows), Return (Macintosh), or Tab, or click outside the text box.
- With the pointer above the Value shuttle, drag upward to increase the value or drag downward to decrease the value.

  Ctrl+drag the Value shuttle for finer adjustments.

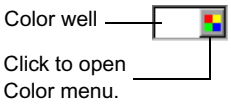
  Shift+drag the Value shuttle to snap the value to a property-specific interval.

Selecting Color Values

Some properties, such as a light source's color, let you select a color from a color well. Using the color well, you can select a color from its Color menu, an area of the screen, another color well, or the Color Picker dialog box.

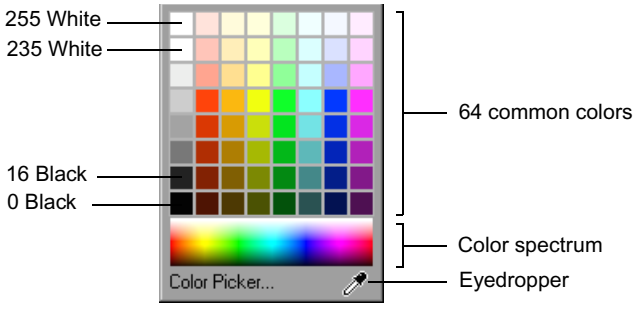
When you are applying gradients to the surface of an object, you can open the Color menu or the Color Picker dialog box from the gradient controls in the Surfaces Properties or the Quick Titles Properties window. You can then select color and opacity levels for each color stop. For more information, see "Editing Gradient Materials" on page 470.

To open the Color menu:



- Click and hold the button next to the color well.

  The Color menu appears.



To select a color directly from the Color menu, do one of the following:

- Click one of the 64 common color swatches.
- Click the color you want in the Color spectrum.

To select a color from an area of the screen:

- (Windows) Drag the eyedropper in the Color menu to the location of the color you want to select, and then release the mouse button.

  The pointer changes to an eyedropper as you are dragging, and the color in the color well updates to show the color currently under the eyedropper. You can select a color from anywhere on the screen, including a color

from another application such as your Avid editing application. When you release the mouse button. the color from that location appears in the color well.

- (Macintosh) Click the eyedropper in the Color menu, move the eyedropper pointer to the location of the color you want, and then click the mouse button.

  You can only select a color from within Marquee.

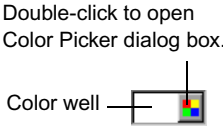
To select a color from another color well:

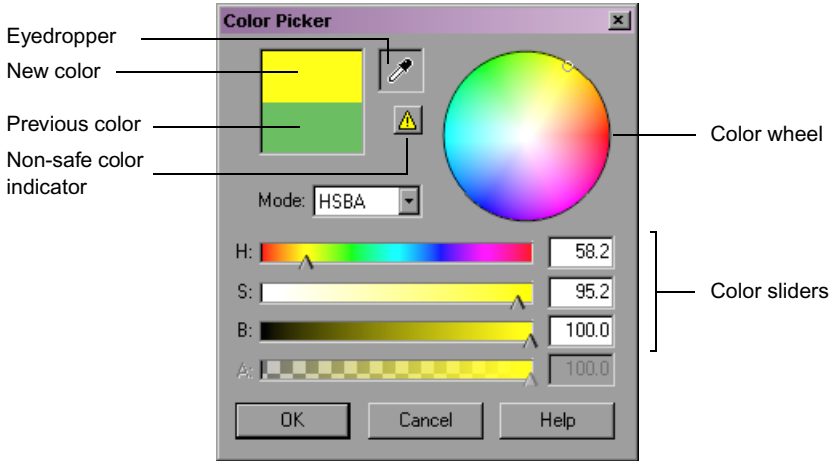
1. Make sure both the source and target color wells are visible.
2. Drag the color between color wells.

To select a color from the Color Picker dialog box:

1. Do one of the following:
   - Click Color Picker in the Color menu.
   - Double-click the color well.

   The Color Picker dialog box appears.





2. Select a color by doing one of the following:
   - Use the color sliders.

     You can drag the slider to a location on its bar, or click at a specific point on the bar to move the slider directly to that point.

The color mode, set using the Mode list, controls the color sliders that you can use. You can set Mode to RGBA to display the red, green, and blue sliders, or to HSBA (the default color mode) to display the hue, saturation, and brightness sliders.

In either color mode, the Alpha (A) slider controls opacity. This slider is available only when you are editing a gradient.

- Click or drag in the color wheel.
- (Windows) Drag the eyedropper to the location of any color on the screen (including a location in another application). Release the mouse button when the eyedropper is over the color you want.
- (Macintosh) Click the eyedropper in the Color Picker dialog box, then move the eyedropper pointer to the location of a color anywhere within Marquee. Click the mouse button to select the color under the eyedropper pointer.

3. (Option) When the current color is not safe for broadcasting, a non-safe warning icon appears next to the color wheel. To dampen the "hot" color to video-safe, broadcast-legal levels, click the warning icon.

   If you are working on a scene that you intend to view on a video display, you need to know when a color is too saturated, "hot," or not safe for broadcasting.

Although Marquee can detect when a solid color is too saturated, it cannot detect if a texture contains a saturated color. Also, although you may select a safe color for an object, a light source may cause the color to become unsafe. If you are creating a title for use in Avid Symphony, you can use the Safe Color settings in Symphony to control color levels when you save the title to a Symphony bin. Otherwise, consider correcting for saturated colors by using the "Use video-safe colors" option in the Render Options dialog box (see "Video-Safe Colors" on page 564).

4. Click OK.

Resetting Values

Some properties have a default value, and you can quickly reset such properties to the default value. This offers one way to undo a change to a property value that does not result in the effect that you want.

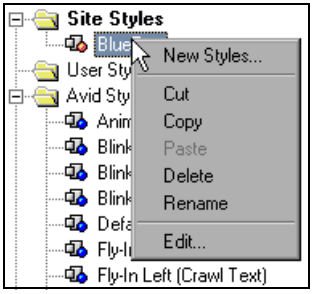
To reset a property to its default value, do one of the following:

- Click the Reset button for the property's control.
- Right-click (Windows) or Ctrl+click (Macintosh) above the Value shuttle or Reset button, and select Reset.

Using Shortcut Menus

Marquee makes extensive use of commands that you access from shortcut menus. These commands affect either the object under the pointer, the selected objects, or the items in a window.

Some commands that appear on shortcut menus have equivalents elsewhere in the Marquee user interface, but many others are available only from shortcut menus.



Example of shortcut menu opened by clicking a style in the Styles Library window

To select a command from a shortcut menu:

- Right-click (Windows) or Ctrl+click (Macintosh) above an object or a window area, and select the command.

Using Mouse Button Shortcuts (Windows Only)

Some Marquee shortcuts involve dragging while pressing and holding one or more keys on the keyboard. If you have a three-button mouse, use the middle mouse button for these shortcuts. If you have a two-button mouse, use the right mouse button.

The keys that you must use as part of these shortcuts are different depending on whether you are using a two-button or a three-button mouse, as described in the following table.

Mouse Button Shortcuts

Shortcut	Two-button Mouse (Right Button)	Three-button Mouse (Middle Button)
Pan	Ctrl+drag	Drag
Interactive zoom	Ctrl+Shift+drag	Shift+drag
Tumble	Ctrl+Alt+drag	Ctrl+drag

Using Keyboard Shortcuts

Keyboard shortcuts are available for many Marquee functions and can help to speed up your work. For example, each tool in the Monitor Window toolbox has a single-key keyboard equivalent, so you can switch from one tool to another without using the mouse.

Many of the most useful keyboard shortcuts are described in this guide in the sections appropriate for their functions. A complete list of Marquee keyboard shortcuts is available in the Help.

To display keyboard shortcut topics in the Help, do one of the following:

- In Marquee, select Help > Shortcuts.
- With Marquee Help open, click the Reference: Keyboard Shortcuts item in the Contents tab.

Using Help

You can display instructions on performing a specific task or reference information on a specific window or dialog box by using the Help system. You can also display brief ToolTip and (on Windows only) status bar information about specific interface objects such as toolbar buttons.

To view the Help:

- (Windows) Select Help > Help Topics.
- (Macintosh) Select Help > Marquee Help.

To view reference information on a window:

- (Windows) Click anywhere in the window to make it active, and then press F1.
- (Macintosh) For the Monitor window, press the Help key. For other windows, Ctrl+click anywhere in the window, and select Help.

To view reference information on a dialog box, do one of the following:

- Click the Help button.
- (Windows only) Click anywhere in the dialog box to make it active, and then press F1.

To view ToolTip (and, on Windows, status bar) information:

- Move the pointer over the object for which you want to view information.

  After a brief delay, the ToolTip appears near the mouse pointer. On Windows, information also appears in the status bar at the bottom of the Monitor window.

Adjusting General Preferences

You can adjust preferences that control how you work in Marquee. You can adjust both General (global) preferences and preferences for the current title. For more information on setting preferences for the current title, see "Setting Preferences for the Current Title" on page 252.

General preferences are settings that affect Marquee's operation. For example, you can decide how often a title is automatically backed up, whether each frame of a title is displayed during playback, and where your Site information is saved. Each user has his or her own General preferences for Marquee.

To adjust General preferences:

1. Do one of the following depending on your operating system:
   - (Windows) Select File > Preferences > General.
   - (Macintosh) Select Marquee > Preferences > General.

   The General Preferences dialog box appears.

2. Do one of the following:
   - Click the General tab to display settings controls for Title Backup, User Interface, and Playback preferences.
   - Click the Locations tab to display settings controls for specifying where to save Site library elements and information on the location where Marquee saves User library elements.
3. Adjust the General settings (see the following table).
4. Click OK.

General Preferences

Tab and Section	Control	Description
General Title Backup	Back up every *n* minutes	Automatically saves the current title to disk at regular intervals after it was last opened or saved. The backup of the title is in the same directory as the title.
	Back up before saving	Creates a backup copy of the existing title on disk before updating it. This option keeps the previously saved copy available if you did not intend to save the title.
General User Interface	Pick sensitivity	How close the pointer must be to an object (expressed in screen pixels) to select it. Low pick sensitivity settings require more exact placement of the pointer, whereas high settings might make it difficult to select a single object near other objects.
General Playback	Skip frames if necessary	Plays back the scene in real time, based on the current title's duration (see "Scene Preferences" on page 253), skipping frames the computer hardware cannot render fast enough. For example, a 5-second title plays from start to finish in 5 seconds. If your workstation is fast enough or if you want to check the general timing in the scene, select this option.
	Play every frame	Plays back each frame in the scene. On slower systems, a 5-second title might not play back in 5 seconds, whereas it might on a faster system. If you want to check intricate or subtle changes in animated objects, play all frames.

General Preferences (Continued)

Tab and Section	Control	Description
Locations User	Location of User files	Displays the folder location where Marquee stores User library files for the current user. The location is displayed for information only; you cannot change it. For more information, see "Library Folders" on page 175. On Windows, the folder is located at: *drive letter*:\Avid\Avid *Editing Application*\Avid Users\ *UserName*\MarqueeUserFiles On the Macintosh, the folder is located at: *drive name*/Users/*UserName*/Library/Preferences/Marquee User Files
Locations Site	Location of Site files	Specifies the location where Marquee stores Site library files for the current site. For more information, see "Library Folders" on page 175. On Windows, the default folder is located at: *drive letter:*Program Files\Avid\Avid *Editing Application* On the Macintosh, the default folder is located at: *drive name*/Users/Shared/Marquee/SiteFiles You might want to change this location so that Site files are stored within the Site_Files folder for your Avid editing application, for example: *drive*:\Program Files\Avid\Avid *Editing Application*\ Site_Files\Marquee This ensures that your Marquee Site files are moved to another Avid editing application installation successfully if you move the Site_Files folder.

Chapter 5

Using Marquee with Your Avid Editing Application

This chapter contains information that describes how Marquee and your Avid editing application work together. It includes all procedures that you perform in whole or part within your editing application or that directly involve the exchange of title materials between Marquee and your editing application.

This chapter covers the following topics:

Controlling When Your Avid Editing Application Uses Marquee

Marquee installs on your Avid system along with the editing application. Since your Avid editing application includes two titling tools, Marquee and the classic Avid Title tool, you can choose to use either tool. Your most fundamental decision concerning Marquee is whether or not to use it for your titling work.

While Marquee offers much more power and flexibility than the Title tool, you might prefer to use the Title tool in some circumstances, particularly when an existing project contains Title Tool titles or when a project will be moved to an Avid system without Marquee and might need title adjustment on that system.

You do not have to use the same titling tool for an entire project or sequence. Projects and sequences can use titles created both with Marquee and with the Title tool.

Understanding Titling Tool Options

When you want to create a new title for a project, you can choose to use either Marquee or the Title tool. You can set options in the Marquee Title settings that instruct the system to do one of the following:

- Use Marquee for all new titles.
- Use the Title tool for all new titles.
- Display the New Title dialog box, which allows you to select the titling tool to use for each new title.

If your system does not include an OpenGL video card, the rendering and display performance of the Marquee Title Tool is reduced. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

When you are working in a project that contains Title Tool titles, you can choose to promote those titles to Marquee titles or keep them as Title Tool titles. You can set options in the Marquee Title settings that instruct the system to do one of the following:

- Always promote Title Tool titles to Marquee when you open them for editing.
- Always keep Title Tool titles in their Title Tool format when you open them for editing.
- Display the Edit Title dialog box, which allows you to choose whether to promote each title you open for editing to Marquee.

The New Title and Edit Title dialog boxes also allow you to save your choice for an individual title as the new setting for all new titles or for all titles you open for editing. This feature lets you change the Marquee Title settings at any time without having to reopen the Marquee Title Setting dialog box.

Marquee Title settings are User settings.

Adjusting Marquee Title Settings

To adjust Marquee Title settings:

1. In the Project window in your Avid editing application, click the Settings tab.

   The Setting scroll list appears.

2. Double-click Marquee Title.

   The Marquee Title Setting dialog box appears.

3. Select the settings you want, and then click OK.

   For more information on the options available, see the following table.

Marquee Title Settings

Setting		Description
Create New Title using		
	Marquee	The system always opens Marquee when you select Clip > New Title or Tools > Title Tool.
	Title Tool	The system always opens the Title Tool when you select Clip > New Title or Tools > Title Tool.

Marquee Title Settings (Continued)

Setting		Description
	Ask me	The system displays the New Title dialog box when you select Clip > New Title or Tools > Title Tool. You can then select either Marquee or the Title Tool. This is the default setting.
Promote Title Tool titles to Marquee		
	Yes	The system always promotes a Title Tool title to a Marquee title when you open the title for editing from a bin or from within a sequence. For more information, see "Promoting Title Tool Titles to Marquee" on page 234.
	No	The system never promotes a Title Tool title to a Marquee title when you open the title for editing from a bin or from within a sequence.
	Ask me	The system displays the Edit Title dialog box when you open a title for editing from a bin or from within a sequence. You can then choose whether to promote the title to Marquee. This is the default setting.
Backup Title on Promote		When this option is selected, the system creates a backup Title Tool version of any title that it promotes to Marquee. The backup copy is a fast-saved (unrendered) title. The system adds [TT] to the name of the backup copy to differentiate it from the newly created Marquee version.

Selecting a Titling Tool from the New Title Dialog Box

To select a titling tool from the New Title dialog box:

1. Make sure that the "Ask me" option is selected in the "Create New Title using" area of the Marquee Title Setting dialog box.

   The New Title dialog box appears only when this option is selected.

2. Do one of the following:
   - Select Clip > New Title.
   - Select Tools > Title Tool.

   The New Title dialog box appears.
3. (Option) If you want your choice of titling tool from this dialog box to persist as the setting the system uses for all new titles, select Persist.
4. Do one of the following:
   - Click Marquee to use Marquee for this title.

     If Persist is selected, the system will use Marquee for all subsequent new titles and the New Title dialog box will no longer appear. This is the equivalent of choosing Marquee in the "Create New Title using" area of the Marquee Title Setting dialog box.
   - Click Title Tool to use the Title tool for this title.

     If Persist is selected, the system will use the Title tool for all subsequent new titles and the New Title dialog box will no longer appear. This is the equivalent of choosing Title Tool in the "Create New Title using" area of the Marquee Title Setting dialog box.

Controlling Title Promotion from the Edit Title Dialog Box

To control title promotion from the Edit Title dialog box:

1. Make sure that the "Ask me" option is selected in the "Promote Title Tool titles to Marquee" area of the Marquee Title Setting dialog box.

   The Edit Title dialog box appears only when this option is selected.
2. Do one of the following to open a Title Tool title for editing:
   - In a bin, press the Ctrl key (Windows) or the ⌘ key (Macintosh) and double-click the Title Effect icon of the title.
   - In the Timeline, select the Title Effect segment that uses the title, enter Effect mode, and click the Other Options button in the Effect Editor.

   The Edit Title dialog box appears.
3. (Option) If you want your choice for title promotion from this dialog box to persist as the setting the system uses for all titles that you open for editing, select Persist.

4. Do one of the following:
   - Click Yes to promote this title to Marquee.

     The system promotes the title and opens it in Marquee for editing.

     If Persist is selected, the system will automatically promote all subsequent Title Tool titles you open for editing and the Edit Title dialog box will no longer appear. This is the equivalent of choosing Yes in the "Promote Title Tool titles to Marquee" area of the Marquee Title Setting dialog box.
   - Click No to keep this title as a Title Tool title.

     The system opens the title in the Title tool for editing.

     If Persist is selected, the system will keep all subsequent Title Tool titles that you open for editing as Title Tool titles and the Edit Title dialog box will no longer appear. This is the equivalent of choosing No in the "Promote Title Tool titles to Marquee" area of the Marquee Title Setting dialog box.

Starting and Quitting Marquee

You start Marquee from within your Avid editing application using the same commands that you use to open the Title tool.

If your system does not include an OpenGL video card, the rendering and display performance of the Marquee Title Tool is reduced. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

To start Marquee from your Avid editing application:

1. Make sure that either Marquee or "Ask me" is selected in the "Create New Title using" area of the Marquee Title Setting dialog box.

   For more information, see "Adjusting Marquee Title Settings" on page 215.
2. Do one of the following:
   - Select Clip > New Title.
   - Select Tools > Title Tool.

If Marquee is selected in the “Create New Title using” area of the Marquee Title Setting dialog box, Marquee opens in the Bin monitor and creates a new title.

If “Ask me” is selected in the “Create New Title using” area of the Marquee Title Setting dialog box, the New Title dialog box appears.

3. (Option) If the New Title dialog box appears, click Marquee.

   Marquee opens and creates a new title.

   For more information on using the New Title dialog box, see “Selecting a Titling Tool from the New Title Dialog Box” on page 216.

To quit Marquee:

- (Windows) Select File > Exit.
- (Macintosh) Select Marquee > Quit Marquee.

  All open titles close, and Marquee closes. If any open titles have not been saved or have changed since they were last saved, a message box appears, asking whether you want to save the changed titles.

Understanding the Video Display for Marquee and Your Avid Editing Application

Marquee uses OpenGL technology for graphics processing and to render some user interface items on screen.

Most computer systems capable of running Avid editing applications include an OpenGL video card that can support Marquee’s OpenGL functions. If your system does not include an OpenGL video card, Marquee uses software-based OpenGL alternatives. Marquee’s ability to render and to draw items on screen is reduced when it uses software-based OpenGL.

If you are using a two-monitor system, your second monitor might not have full OpenGL display support. If this is the case, the following Marquee windows will not display correctly on the second monitor and you should not move them onto that monitor:

- Monitor window
- Timeline window
- Quick Titles Properties window

- Surfaces Properties window
- Preview window

Switching Between Marquee and Your Avid Editing Application

Although you start Marquee from within your Avid editing application, it runs as a separate application (a separate Marquee item appears on your Windows taskbar or in your Macintosh Dock).

In most circumstances when you have both Marquee and your editing application open, you can move freely between the two programs. However, when you are working in Effect mode in your editing application and you open a Marquee-created title to revise it, Marquee prevents your editing application from functioning. You cannot move back into the editing application until you have finished revising the title and have closed Marquee.

You must close Marquee before you can close a project or exit your Avid editing application. If Marquee is open when you attempt to close a project, your editing application displays a message asking you to close Marquee.

To switch between your Avid editing application and Marquee, do one of the following:

- If part of the application to which you want to switch is visible beneath the active application, click anywhere in the visible part of the application to which you want to switch.

If you prefer to switch between applications in this way, you might want to adjust the window arrangement of the two applications so that you can always see part of the inactive application.

- Click the item for the application to which you want to switch on the taskbar (Windows) or in the Dock (Macintosh).

Windows Taskbar item for
Avid Symphony

Macintosh Dock item for
Avid Media Composer Adrenaline

- Use your operating system's standard keyboard shortcut for moving between open applications (Alt+Tab on Windows or ⌘+Tab on Macintosh). For more information, see the documentation for your operating system.

How Marquee and Your Avid Editing Application Save Titles

As you create titles in Marquee, you can save them to a bin in your Avid editing application. Once they are saved to a bin, Marquee titles are available to use within your editing application in exactly the same way that you use titles created with the Title tool.

It is helpful to understand both the general process that Marquee and your editing application use when saving titles and the specifics of how different kinds of titles are saved.

General Process for Saving Titles to a Bin

Marquee and your Avid editing application take the following steps when saving a title to a bin. For complete procedures for saving titles to bins, see "Saving Titles to Your Avid Editing Application" on page 226.

1. Marquee saves the title as a temporary .mqp file.
2. Marquee renders one or more temporary TIFF graphics files.

   The number of graphics files that must be rendered varies, depending on the type of title that you are saving. For more information, see "Avid Editing Application Title Types Created from Marquee Titles" on page 222.
3. Your Avid editing application imports the TIFF files rendered by Marquee and creates title media from them.
4. A new title clip appears in the selected bin.

   Information from the temporary .mqp file is included in the title clip file so that your editing application associates the title clip with Marquee and can open the clip in Marquee for editing.
5. The temporary .mqp file and the temporary TIFF graphics files created by Marquee are deleted.

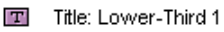
Avid Editing Application Title Types Created from Marquee Titles

Your Avid editing application creates one of the following four title types, depending on the nature of the Marquee title you are saving to a bin:

- Static Titles
- Rolling Titles
- Crawling Titles
- Animated Titles

The following sections provide information about each title type, including specific requirements for each title type and the number of temporary graphics files that are created for each title type.

Static Titles



Marquee and your Avid editing application create a static title when the Marquee title is unchanging for its entire duration (no properties have been animated and no text objects have their Motion property set to either Roll or Crawl).

Marquee and your editing application also create a static title from the current frame of a rolling, crawling, or animated title when you select “Current Frame only (static title)” in the Save to Avid Bin dialog box. For more information on this option, see “Saving the Current Frame from an Animated Title as a Static Title” on page 230.

Marquee renders a single temporary TIFF file.

Regardless of the title’s duration in Marquee, the resulting title clip in the editing application is 2 minutes in length. This is consistent with title clips created using the Title tool. You must edit the title to the correct length for your sequence using the standard methods described in “Editing with Titles” in the Help for your Avid editing application.

Rolling Titles

You can save a Marquee rolling title to your Avid editing application in one of two forms:

- **Avid Rolling Title**

  If the Marquee rolling title meets the specific requirements listed below, you can save it as an Avid Rolling Title. You can adjust the length of an Avid Rolling Title in your editing application.

- **Animated Title**

  If you modify a Marquee rolling title so that it no longer meets the requirements for an Avid Rolling Title, you can save it to your editing application only as an Animated Title. An Animated Title takes longer to render, and its length is fixed at the duration set in Marquee.

  When you attempt to save the title to a bin, a message box allows you to cancel the save operation or to save the title as an Animated Title. For more information on Animated Titles, see “Animated Titles” on page 226.

Marquee and your Avid editing application create an Avid Rolling Title only when the Marquee title meets the following specific requirements:

- The title contains a single text object that is the same height as the scene and that has its Motion property set to Roll.
- The “Scroll position” property value of the text object is set to 0 at the beginning of the title’s duration and is set to 100 at the end of the title’s duration.
- The text object is not animated and does not contain any pages.
- The text object extends across the full duration of the title (is not trimmed).
- The total size of the text object does not exceed the page count limit for Avid Rolling Titles. This limit varies depending on the format of the video project and on whether you intend to save the title in a single format or in multiple formats. For more information and a table listing the page count limits, see “Page Count Limits for Rolling Titles” on page 352.
- Transform Scale properties are at their default values.
- Transform Rotation and Z Position property values are set to 0.

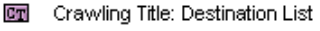
- Lighting is not enabled for any surfaces of the text object.
- Any surfaces of the text object that have gradients or textures have the Mapping property set to Local and the Overlap property set to Normal.

All the Avid-supplied rolling title templates meet these requirements. Also, the Adjust Roll toolbar button can create an empty text object that meets these requirements or modify an existing text object to meet these requirements. Avid recommends the use of rolling title templates or the Adjust Roll toolbar button as the easiest way to create a rolling title in Marquee that will convert to an Avid Rolling Title. For more information on creating rolling titles from templates, see "Applying Basic Title Templates" on page 142. For more information on the Adjust Roll toolbar button, see "Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357.

Marquee renders one temporary TIFF file for each complete screenful of text in the rolling title.

Regardless of the title's duration in Marquee, the length of the resulting Rolling Title title clip in your editing application is based on the number of screenfuls of text in the rolling title. (For a 30i NTSC title, the title clip is 1 minute in length for each screenful of text.) This is consistent with title clips created using the Title tool. Control the rolling title's length in your sequence and its exact beginning and ending points using the standard methods described in "Editing with Titles" in the Help for your Avid editing application.

Crawling Titles



You can save a Marquee crawling title to your Avid editing application in one of two forms:

- **Avid Crawling Title**

  If the Marquee crawling title meets the specific requirements listed below, you can save it as an Avid Crawling Title. You can adjust the length of an Avid Crawling Title in your editing application.

- **Animated Title**

  If you modify a Marquee crawling title so that it no longer meets the requirements for an Avid Crawling Title, you can save it to your editing application only as an Animated Title. An Animated Title takes longer to render, and its length is fixed at the duration set in Marquee.

  When you attempt to save the title to a bin, a message box appears allowing you to cancel the save operation or to save the title as an Animated Title. For more information on Animated titles, see "Animated Titles" on page 226.

Marquee and your Avid editing application create an Avid Crawling Title only when the Marquee title meets the following specific requirements:

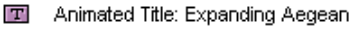
- The title contains a single text object that is the same width as the scene and that has its Motion property set to Crawl.
- The "Scroll position" property of the text object is set to 0 at the beginning of the title's duration and is set to 100 at the end of the title's duration.
- The text object is not animated and does not contain any pages.
- The text object extends across the full duration of the title (is not trimmed).
- Transform Scale properties are at their default values.
- Transform Rotation and Z Position property values are set to 0.
- Lighting is not enabled for any surfaces of the text object.
- Any surfaces of the text object that have gradients or textures have the Mapping property set to local and the Overlap property set to Normal.

All the Avid-supplied crawling title templates meet these requirements. Also, the Adjust Crawl toolbar button can create an empty text object that meets these requirements or modify an existing text object to meet these requirements. Avid recommends the use of crawling title templates or the Adjust Crawl toolbar button as the easiest way to create a crawling title in Marquee that will convert to an Avid Crawling Title. For more information on creating crawling titles from templates, see "Applying Basic Title Templates" on page 142. For more information on the Adjust Crawl toolbar button, see "Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357.

Marquee renders one temporary TIFF file for each complete screenful of text in the crawling title.

Regardless of the title's exact duration in Marquee, the length of the resulting Crawling Title title clip in your editing application is based on the number of screenfuls of text in the crawling title. (For a 30i NTSC title, the title clip is 1 minute in length for each screenful of text.) This is consistent with title clips created using the Title tool. Control the crawling title's length in your sequence and its exact beginning and ending points using the standard methods described in "Editing with Titles" in the Help for your Avid editing application.

Animated Titles



Marquee and your Avid editing application create an Animated Title when one or more of the properties in the Marquee title are animated, or when a Marquee rolling or crawling title does not meet the requirements for conversion to an Avid Rolling Title or Crawling Title.

Animated Title is a new Avid editing application title type that has the same behavior as a real-time moving matte.

Marquee renders one temporary TIFF graphics file for each frame in the Marquee title. This means that an animated title takes longer to save to a bin than any other kind of title.

The length of the title clip for an Animated Title in your editing application is the same as the duration of the Marquee title. When you create an animated title in Marquee for use in your editing application, you need to be aware of the title's duration in relation to its intended function in your sequence. Remember that you can change the duration of a Marquee title while you are working in Marquee and all its animated properties will scale to the new duration.

Saving Titles to Your Avid Editing Application

You can save Marquee titles directly to a bin in your Avid editing application. You can save the currently active title, or you can save all open Marquee titles in a single operation.

Understanding Format Differences Between DV and Non-DV Titles

For both NTSC and PAL projects, it is important to understand that Marquee titles created for DV media differ from those created for non-DV media. For NTSC, DV titles are created at a resolution of 720x480 while non-DV titles are created at a resolution of 720x486. For PAL, DV titles are created using a Field Dominance setting of Field 2 while non-DV titles are created using a Field Dominance setting of Field 1.

Because of these differences, it is important to choose a matching resolution in the Save Title dialog box in your Avid editing application when you save a Marquee title to an Avid bin. If your Marquee title uses a DV format, you should choose a DV resolution in the Save Title dialog box. If your Marquee title uses a non-DV format, you should choose a non-DV resolution in the Save Title dialog box. If you do not choose a matching resolution, the title that appears in the Avid bin might be of poor quality, especially if the title is a roll or crawl.

Saving the Current Title to a Bin

To save the current title to a bin in your Avid editing application:

1. If you have not already done so, set any rendering options that you want to affect your title.

   Only certain options in the Rendering Control area of the Render Options dialog box affect titles you save to a bin. For more information, see "Rendering Options When Saving to a Bin" on page 554.

2. (Option) If you are saving the current frame from a rolling, crawling, or animated title as a static title, move to the frame in your title that you want to save.

   For more information, see "Saving the Current Frame from an Animated Title as a Static Title" on page 230.

3. Select File > Save to Bin.

   The Save to Avid Bin dialog box appears.

4. Type a name for the title in the text box.

5. (Option) Select or deselect “Use Same Save Options as Previous Title, if available.”

   “Use Same Save Options as Previous Title, if available” is available in the Save to Avid Bin dialog box if you have already saved a title to a bin. When this check box is selected, the title is automatically saved in your editing application using the same Bin, Drive, and Resolution settings as the previous save.

6. (Option) If you are saving only the current frame from a rolling, crawling, or animated title as a static title, select “Current Frame only (static title).”

   For more information, see “Saving the Current Frame from an Animated Title as a Static Title” on page 230.

7. Click OK.

   Marquee renders the temporary TIFF files that your editing application uses to create the title media. Marquee displays the Rendering Progress message box, informing you of the progress of the render. (Depending on the speed of the render, the Rendering Progress message box might be visible only for a brief time.)

8. When the Marquee render operation is complete (the Rendering Progress message box disappears), switch to your editing application.

   For more information, see “Switching Between Marquee and Your Avid Editing Application” on page 220.

   The Save Title dialog box is open in the editing application.

   If you are saving a title to a bin for the first time, or if you did not select “Use Same Save Options as Previous Title, if available” in the Save to Avid Bin dialog box, the Save Title dialog box appears, with the name that you typed for the title in Marquee displayed in the Title Name text box.

9. In the Save Title dialog box, do the following:
   a. Select a bin, drive, and resolution from the pop-up menus.

      Your resolution choice might be affected by the format of your title and your project (DV or non-DV). For more information, see "Understanding Format Differences Between DV and Non-DV Titles" on page 227.
   b. Select or deselect Fast Save (Unrendered), depending on your needs.
   c. If your project supports multiple title formats, select the title formats you want to use in the Title Formats area.
   d. Click Save.

   Your editing application creates the media for the new title. The title appears in the bin you selected and is loaded into the Source monitor.

Saving All Open Titles to a Bin

To save all open titles to a bin in your Avid editing application:

1. Select any rendering options that you want to affect your titles.

   Only certain options in the Rendering Control area of the Render Options dialog box affect titles you save to a bin. For more information, see "Rendering Options When Saving to a Bin" on page 554.

Marquee associates rendering options with an individual title, so you need to set rendering options individually for each title before you proceed to step 2, even if you want to use the same options for all your titles. For example, if you have six open titles, you must set rendering options for each one before you proceed to save them all to your editing application.

2. Select File > Save All to Bin.

   For all the open titles, Marquee renders the temporary TIFF files that your editing application uses to create the title media. Marquee displays the Rendering Progress message box, informing you of the progress of the render. (Depending on the speed of the render, the Rendering Progress message box might be visible only for a brief time.)

3. When the Marquee render operation is complete (the Rendering Progress message box disappears), switch to your editing application.

   For more information, see "Switching Between Marquee and Your Avid Editing Application" on page 220.

   The Save Title dialog box is open in the editing application, with the name of the first title displayed in the Title Name text box.

4. In the Save Title dialog box, do the following:

   a. Select a bin, drive, and resolution from the pop-up menus.

      Your resolution choice might be affected by the format of your title and your project (DV or non-DV). For more information, see "Understanding Format Differences Between DV and Non-DV Titles" on page 227.

   b. Select or deselect Fast Save (Unrendered), depending on your needs.

   c. If your project supports multiple title formats, select the title formats you want to use in the Title Formats area.

   d. Click Save.

   Your editing application creates the media for the new titles. The titles appear in the bin you selected, and the last-saved title is loaded into the Source monitor.

If you have not saved the titles as .mqp files in Marquee, they will be saved to your editing application with generic titles, such as Untitled1, Untitled2, and so forth. You can change the name of the first title saved in your editing application's Save Title dialog box, but you cannot change the names of the other titles saved until they have appeared in the bin. The simplest approach for naming the titles meaningfully is to rename them in the bin after you save them.

Saving the Current Frame from an Animated Title as a Static Title

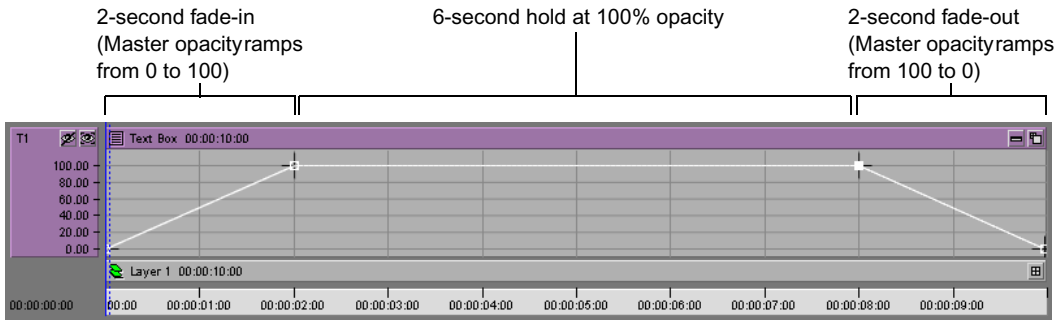
Marquee allows you to save the current frame from a rolling, crawling, or animated title as a static title.

This feature might save rendering time or increase editing flexibility when you are building titles that you want to be animated for part of their duration and to be static for part of their duration. Instead of saving a single, fixed-length

animated title, you can save both an Animated Title and a static title. You can then adjust the length of the static part in your editing application using standard Avid editing techniques.

For example, you might want to create a title that fades in, remains static on screen for a period of time, and then fades out. If you create this title as a single animated title, you must commit to a specific duration for the title, and you must render a large number of identical frames when you save the title to a bin. If the length of the title proves unsuitable for your sequence, you must return to Marquee, change the duration of the title, and render every frame again when you save the title to the bin again. The following illustration shows the Marquee Timeline for this scenario for a 10-second title.

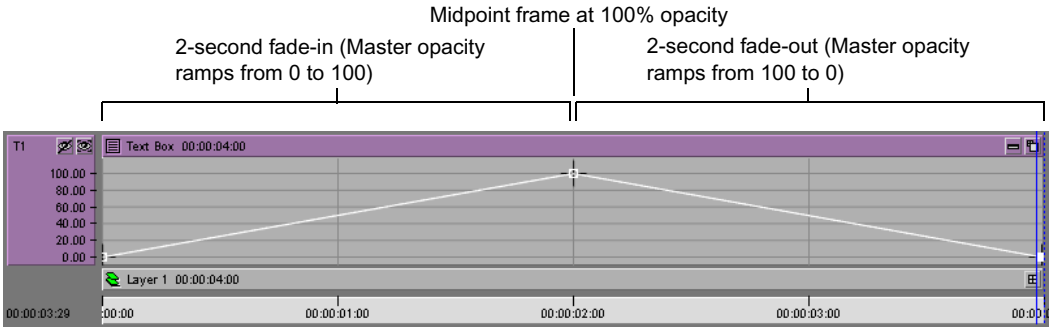
Marquee Timeline showing Master Opacity property graph



If you save this title to your editing system as one Animated Title, your ability to adjust the length of the 6-second static part in your sequence is limited, and you extend the time required to save the title by forcing Marquee to render many identical frames. For more information on the Marquee Timeline and the use of property graphs, see the chapter "Animating Object Properties" on page 411.

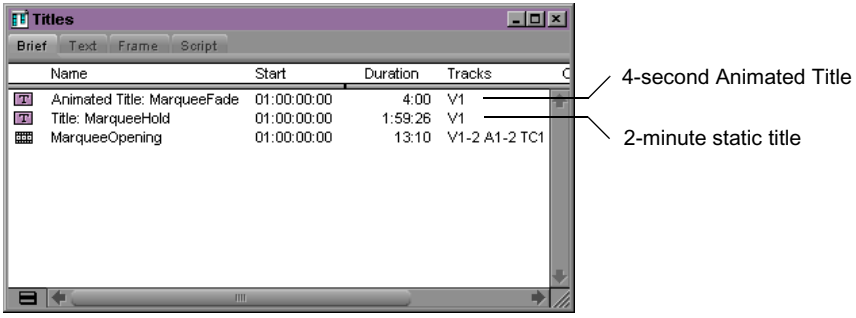
If instead you create a title in Marquee that fades in and then immediately fades out, you can create two titles — an Animated Title that contains the fade-in and fade-out, and a static title that uses the midpoint frame from the Marquee title. The static title is saved to your editing application quickly since Marquee renders only one frame. The static title also has the standard Avid editing application duration of 2 minutes, so you can edit any part of it into your sequence and trim its length once it is in the sequence. You can therefore freely adjust the length of the static part of your title in your editing application without needing to return to Marquee. The following illustrations show this scenario for a title that has a duration of 4 seconds in Marquee.

Marquee Timeline showing Master Opacity property graph

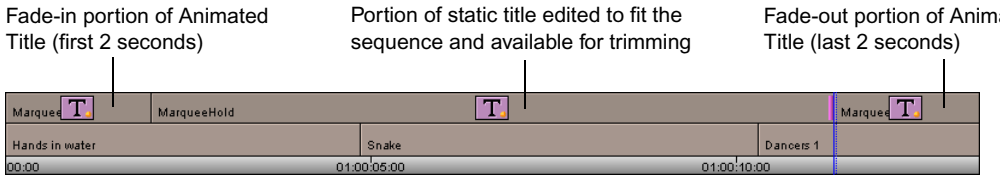


If you save this title to your editing system as one 4-second Animated Title and a static title that uses the midpoint frame, you can adjust the length of the static part in your sequence, and you do not render many identical frames as part of the save process. For more information on the Marquee Timeline and the use of property graphs, see the chapter "Animating Object Properties" on page 411.

Editing system bin containing Animated Title and static title



Editing system Timeline with Animated Title and static title edited into a sequence



Another example of this method is a rolling title that you want to hold at some point, for example, at its end. By creating both an Avid Rolling Title and a static title and editing appropriate parts of each into your sequence, you can easily adjust the length of the hold within your editing application.

Reediting Single-Frame Static Titles

All the keyframe information for the original Marquee title is saved when you save a single-frame static title from a rolling, crawling, or animated title. If you open the single-frame static title from your Avid editing application for reediting in Marquee, you see the full duration of the original title and Marquee moves in time to the frame you used when you saved the single-frame static title.

You can move in time to a different frame in the title and perform a new "Current Frame only (static title)" save for that frame.

If you are reediting the title from a bin, you can also choose to deselect "Current Frame only (static title)" and save the full duration of the title as an Animated Title. This option is not available when you reedit a single-frame static title from the Timeline in your editing application.

Working with Marquee Titles in Your Avid Editing Application

You can work with titles that you create in Marquee and save to a bin in your Avid editing application in just the same way that you work with titles created in the Title tool. You can:

- Edit titles in a bin or titles edited into a sequence.
- Regenerate title media or create title media for an unrendered (Fast Save) title.

If you open a title for reediting while you are in Effect mode in your editing application, your editing application is disabled until you have finished reediting the title in Marquee. If you open a title for reediting while you are in Effect mode in your editing application and Marquee is already open, the title opens in a second copy of Marquee. Most of the functionality of the first copy of Marquee is disabled until you have finished reediting the title.

If you revise a title in a sequence by changing its motion type (for example, from static to rolling), Marquee can no longer replace the title in the sequence. Marquee prompts you to save the title directly to a bin as a new title, and you must edit the new title into the sequence to replace the old one.

For more information on working with titles in your editing application, see “Creating Titles and Graphic Objects” and “Editing with Titles” in the Help for your Avid editing application.

Converting Title Tool Titles, Title Templates, and Title Styles to Marquee

You can promote existing Title Tool titles to Marquee titles. You can then modify them in Marquee using the full range of Marquee capabilities.

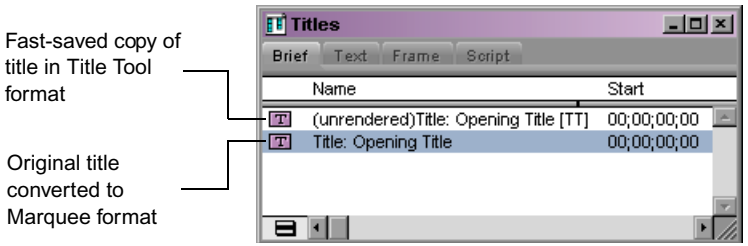
You can also convert existing Title Tool title templates and title styles to their Marquee equivalents.

Promoting Title Tool Titles to Marquee

Your Avid editing application can promote a Title Tool title to a Marquee title when you attempt to edit the title, either from a bin or in a sequence.

If the Yes option for promoting titles is selected in the Marquee Title Setting dialog box, the system automatically promotes the title to a Marquee title. If the “Ask me” option for promoting titles is selected in the Marquee Title Setting dialog box, the system allows you to choose whether to promote the title. For more information on Marquee Title settings, see “Controlling When Your Avid Editing Application Uses Marquee” on page 214.

If the “Backup Title on Promote” option is selected in the Marquee Title Setting dialog box, the system creates a fast-saved copy in Title Tool format of any title that is promoted to Marquee. This allows you to continue to work with a Title Tool version of the title if necessary. The following illustration shows the resulting titles in the bin.



To promote a Title Tool title:

1. Make sure that you select either Yes or “Ask me” in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box.

   For more information, see “Controlling When Your Avid Editing Application Uses Marquee” on page 214.

2. Do one of the following:

   - For a title in a bin, press the Ctrl key (Windows) or ⌘ key (Macintosh) and double-click the Title Effect icon in the bin.
   - For a title edited into a sequence, select the Title Effect segment, enter Effect mode, and then click the Other Options button in the Effect Editor.

   If Yes is selected in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box, the system promotes the title to Marquee automatically and opens it in Marquee for editing.

   If “Ask me” is selected in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box, the Edit Title dialog box appears.

3. (Option) Select Persist to save your choice from this dialog box as the new Marquee Title setting for promoting Title Tool titles to Marquee.

   - If you select Persist and then click Yes, all Title Tool titles that you open for editing are promoted to Marquee. This is the equivalent of selecting Yes in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box.
   - If you select Persist and then click No, all Title Tool titles that you open for editing remain as Title Tool titles. This is the equivalent of selecting No in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box.
   - If you leave Persist deselected, the system continues to display the Edit Title dialog box when you open a Title Tool title for editing. This is the equivalent of selecting “Ask me” in the “Promote Title Tool titles to Marquee” area of the Marquee Title Setting dialog box.

4. Click Yes to promote the title to Marquee.

   The system promotes the title to Marquee and opens it in Marquee.

Converting Title Tool Title Templates to Marquee

You have the opportunity to convert a Title Tool title template to a Marquee template when you open the template for editing.

To convert a Title Tool title template to a Marquee template:

1. In the Title tool, click the Templates pop-up menu, and select Edit Template.

   The Open dialog box appears.

2. Select the template you want to convert, and then click Open.

   The template opens in the Title tool and a dialog box appears, asking if you want to convert the title to Marquee.

3. Click Yes.

   The system converts the template into a new Marquee title and opens it in Marquee. Marquee gives the new title a default name using the format MCEffects_*n*, where *n* is an integer. For example, the second template converted in this way would be named MCEffects_2.

   The new title is *not* automatically saved as a template.

4. In Marquee, in the Templates Library window, right-click the folder in which you want to save the template, and select New Template.

5. Type a name for the new template, and then click OK.

   Marquee saves the new template in the folder you selected.

For more information on saving templates, see “Saving and Deleting Templates” on page 532.

Converting Title Tool Title Styles to Marquee

You can choose to convert all your existing Title Tool title styles to Marquee styles at one time. You can also choose to convert individual Title Tool title styles to Marquee styles at any time.

Title Tool title styles are saved as User settings. Converting Title Tool title styles creates equivalent Marquee styles in the User folder of the Styles library. Your Title Tool title styles are not deleted and remain available if you choose to work again in the Title tool.

You can modify a Title Tool title style that has already been saved as a Marquee style at any time and save it again as a Marquee style. You can choose either to replace the existing Marquee style or to create a new Marquee style.

You are always prompted to convert all Title Tool title styles at once the first time you start Marquee as a specific user of your Avid editing application. If you do not convert Title Tool title styles at that time, you continue to be prompted to convert all Title Tool title styles when you start Marquee only until you save a style, texture, or material to a User folder in a Marquee library. You can convert individual Title Tool title styles at any time.

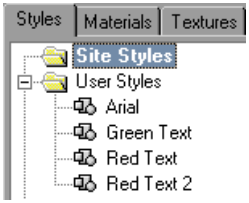
To convert all existing Title Tool title styles to Marquee styles:

1. Start Marquee from your Avid editing application as described in "Starting and Quitting Marquee" on page 218.

   A dialog box appears, asking if you want to convert your Title Tool title styles to Marquee styles.

2. Click Yes.

   Your Avid editing application converts the Title Tool title styles to Marquee styles. When the conversion is complete, the Marquee interface appears. The converted styles appear in the User Styles folder of the Styles library.



To convert an individual Title Tool title style to a Marquee style:

1. In your Avid editing application, click the Settings tab in the Project window.
2. In the Settings scroll list, double-click the title style that you want to convert.

   The Title Style Sheet dialog box appears.

3. Click Convert to Marquee.

   If the style has not been converted previously to a Marquee style, your editing application converts the style to a Marquee style, places the Marquee style in the User Styles folder of the Styles library, and displays a confirmation message. Marquee does not start as part of this procedure.

   If the style has been converted previously to a Marquee style, a dialog box appears.

4. Do one of the following:

   - Click Replace to replace the existing Marquee style.
   - Click Allow Multiple to save the style as a duplicate Marquee style.

     If you select this option, the new version of the style appears beneath the previously converted version in the User Styles folder of the Marquee Styles library. All versions of the style are saved in Marquee using the name of the Title Tool title style. You might want to rename one or more of the versions in Marquee to help you distinguish them.
   - Click Cancel Conversion to cancel title style conversion.

Limitations on Title Conversion

The majority of Title Tool title characteristics are exactly preserved when you convert a title, title template, or title style to Marquee. Because of differences in the way the two applications operate, however, some characteristics cannot be exactly preserved. The following is a list of those characteristics that are altered or unavailable when you convert a Title Tool title, title template, or title style to Marquee:

- Text that uses a non-TrueType® font is replaced with the Marquee default font.
- Bold or italic text from the Title Tool title does not appear bold or italic in Marquee if the text font does not have bold or italic font face variants.
- Kerning applied to spaces in text is not preserved with complete accuracy. Manually kerned spaces between words remain very close to the Title tool original, but a manually kerned space at the beginning of title text might be significantly different from the Title tool original.
- Depth shadows, borders, and rounded corners on graphic objects might appear slightly different in Marquee.
- Color gradients might appear slightly different due to differences in calculation.

- In the Title tool, you can create a color gradient that goes in one direction and a transparency gradient that goes in a different direction. (For example, you might have a left-to-right color gradient and a top-to-bottom transparency gradient.) This combination is not possible in Marquee. Marquee preserves the two gradients, but they both use the same direction.
- If you promote a Title Tool rolling or crawling title containing multiple objects, Marquee treats the objects as if they were subobjects within a container object. To select one of these objects, Alt+click with the Edit tool, or select the individual object in the Timeline window or Layers window.
- In addition, in rare cases, there might be slight differences in pixel positions and in the widths of fonts and objects.

Moving Marquee Titles Between Avid Systems

If you create a sequence in your Avid editing application, edit titles created in Marquee into that sequence, and then move the sequence to an Avid system that does not include Marquee, be aware of the following:

- Because the titles were saved to your Avid editing application as standard Avid title clips, they will play successfully in another Avid system.
- Because the titles were originally created using Marquee, they cannot be edited in an Avid system that does not include Marquee. If you attempt to open a title for editing, a message box appears, informing you that you cannot edit the title.

Converting Marquee AVX Plug-in Effects to Marquee Titles

You can convert effects created with the Marquee AVX™ plug-in to Marquee titles by using the .mqp file format to move from the Marquee AVX plug-in to Marquee. This makes it possible to conform projects that contain Marquee AVX plug-in effects on your Avid editing application without having the Marquee AVX plug-in installed.

You cannot move an .mqp file from Marquee to the Marquee AVX plug-in because you cannot open an .mqp file in the plug-in.

To convert a Marquee AVX plug-in effect to a Marquee title:

1. On the system that has the Marquee AVX plug-in installed, open the effect you want to convert in the Marquee AVX plug-in, and save the effect as an .mqp file.
2. Move the .mqp file to the system that has Marquee installed.
3. From your editing application on the system that has Marquee installed, open Marquee, and then open the .mqp file.
4. Save the title to a bin in your editing application.

Chapter 6
Creating, Managing, and Viewing Titles

This chapter explains how you create and manage titles in Marquee and how you can adjust your view of a title and its objects.

This chapter covers the following topics:

Creating Titles

All work in Marquee is done through documents called titles. A title describes the images, text, and graphics, as well as the settings used to process them. You can edit multiple titles at a time.

In addition to creating new titles in Marquee, you can convert existing classic Avid Title Tool titles to Marquee titles. For more information, see "Converting Title Tool Titles, Title Templates, and Title Styles to Marquee" on page 234.

To create a new title, do one of the following:

- If Marquee is not yet open, select Clip > New Title or Tools > Title Tool in your Avid editing application. If the New Title dialog box appears, click Marquee.

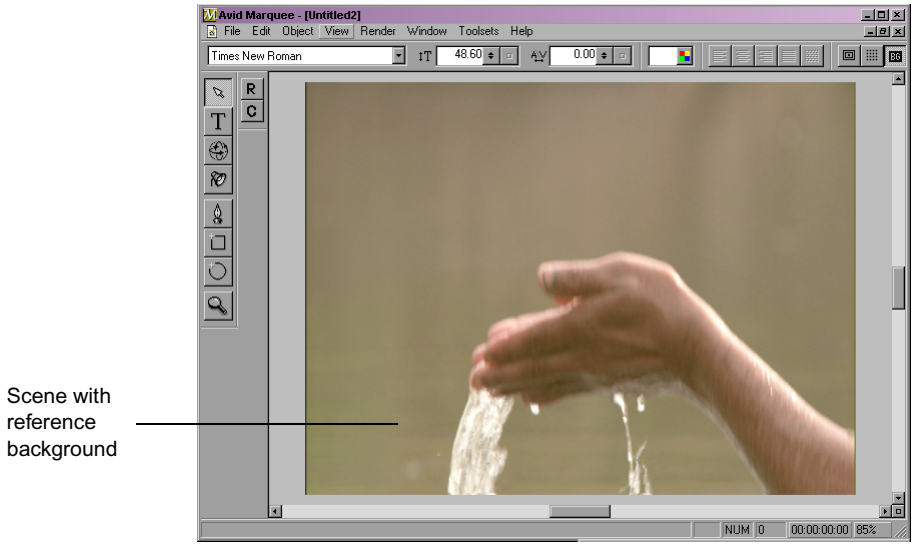
  Marquee opens and creates a new title based on the format of the current project in your editing application.

- If Marquee is already open, select File > New or click the New button in the Monitor Window toolbar.

  Marquee creates a new title based on the format of the current project in your editing application.

The scene for the new title appears in the Monitor window surrounded by a gray adjustment area. For more information on the viewing area of the Monitor window, see "Viewing Area" on page 189.

Marquee creates a reference background graphic from the video frame at the current position indicator location in your editing application. By default, Marquee displays this graphic in the scene. For information on controlling this background and its visibility, see "Working with Backgrounds" on page 273.



New titles are untitled until you save them to disk. The list of currently open titles appears in the Window menu, with the current title checked.

Title Duration and Title Formats

Marquee creates a new title using a default duration of 5 seconds and a format based on the current project in your editing application. You can change the duration or format of a title at any time.

Understanding Title Duration

The duration of a Marquee title can take two different forms, as follows:

- **Preview duration**

  If the title is a static title, a rolling title that can be saved as an Avid Rolling Title, or a crawling title that can be saved as an Avid Crawling Title, the duration of the title is a preview duration. This duration controls how long the title plays within Marquee but does not affect the length of the title clip that will appear in your editing application bin. For information on the length of title clips in your editing application, see “Avid Editing Application Title Types Created from Marquee Titles” on page 222.

You do not normally need to change the preview duration of a static title. You might want to change the preview duration of a rolling or crawling title to see how it looks when playing for the length of time you expect it to occupy when you edit it into your sequence. For example, if you want your rolling title to run for 30 seconds in your sequence, you can change the preview duration to 30 seconds and then play the rolling title in Marquee to check its speed.

- **Animation duration**

  If the title is an animated title, the duration of the title is an animation duration. Animation duration controls both how long the title plays in Marquee and the length of the title clip that will appear in your editing application bin.

  You need to change the duration of an animated title whenever you want the title to play for a period other than the default 5 seconds. You can change the duration as often as you want while you are working in Marquee. Whenever you are creating an animated title, you need to be aware of its duration in relation to the final position you want it to occupy in your sequence.

Changing Title Duration

You change the duration of a title by typing in the Preview Duration or Animation Duration text box in the Title Preferences dialog box.

To change the duration of a title:

1. Do one of the following:
   - Select File > Duration.
   - Right-click (Windows) or Ctrl+click (Macintosh) in the Time Display area, and select Duration.

   The Title Preferences dialog box appears. The text box that contains duration information is named either Preview Duration or Animation Duration, depending on whether the current title is animated.
2. Type a new duration in the Preview Duration or Animation Duration text box.
3. Click OK.

Understanding Title Formats

The format of a title controls several basic aspects of the title's look and behavior, including its dimensions, frame rate, and compatibility with a video format such as NTSC or PAL.

When you create a new title, Marquee selects a format for the new title based on all of the following information taken from your Avid editing application:

- The format of the current project
- The current monitor display settings (allowing Marquee to distinguish between 4x3 and 16x9 aspect ratios)
- The current resolution setting in the Titles tab of the Media Creation Settings dialog box (allowing Marquee to distinguish between DV and non-DV media)

Whenever possible, Marquee matches this information to one of the preset title formats, which cover the great majority of possible project formats, aspect ratios, and media types that you might use in your Avid editing application. For more information on the preset title formats, see "Preset Title Formats" on page 246.

However, if the project in your editing application uses a combination of settings that do not match one of the preset title formats, Marquee creates a new title with a Custom format that uses all of those settings. New titles created in Marquee will therefore always match the settings of the current project in your Avid editing application.

When you promote Avid Title Tool titles to Marquee titles, Marquee uses the same set of project information to determine the format of the promoted Marquee title that it uses when creating a new Marquee title. This usually ensures that the promoted title is fully compatible with the current project in your Avid editing application. However, differences in the way the two title tools operate can sometimes result in minor changes to the appearance and sizing of promoted title objects. For more information, see "Limitations on Title Conversion" on page 238.

If you use an existing Marquee title, for example, one originally created using a previous release of Marquee, you might need to change its format manually to match your current Avid editing application project. For example, if your current editing application project is an HD project, you might want to change the Marquee title format to the appropriate HD format.

Preset Title Formats

The available set of preset title formats includes full sets of HD, NTSC DV, PAL DV, NTSC non-DV, and PAL non-DV formats. The following table provides a complete listing of the preset title formats.

Preset Title Formats

Title Formats	Frame Rate (fps)	Interlaced (Field Dominance)
HDV 1280x720 @29.97p	29.97	No
HD 1280x720 @59.94p	59.94	No
HD 1920x1080 @23.976p	23.976	No
HD 1920x1080 @25p	25	No
HD 1920x1080 @50i	25	Yes (Field 2)
HD 1920x1080 @59.94i	29.97	Yes (Field 2)
NTSC 4x3 (720x486 @23.976p)	23.976	No
NTSC 16x9 (720x486 @23.976p)	23.976	No
NTSC 4x3 (720x486 @24p)	24	No
NTSC 16x9 (720x486 @24p)	24	No
NTSC 4x3 (720x486 @30i Non-Drop-Frame)	29.97	Yes (Field 2)
NTSC 16x9 (720x486 @30i Non-Drop-Frame)	29.97	Yes (Field 2)
NTSC 4x3 (720x486 @30i Drop-Frame)	29.97	Yes (Field 2)
NTSC 16x9 (720x486 @30i Drop-Frame)	29.97	Yes (Field 2)
NTSC DV 4x3 (720x480 @23.976p)	23.976	No
NTSC DV 16x9 (720x480 @23.976p)	23.976	No

Preset Title Formats (Continued)

Title Formats	Frame Rate (fps)	Interlaced (Field Dominance)
NTSC DV 4x3 (720x480 @24p)	24	No
NTSC DV 16x9 (720x480 @24p)	24	No
NTSC DV 4x3 (720x480 @30i Non-Drop-Frame)	29.97	Yes (Field 2)
NTSC DV 16x9 (720x480 @30i Non-Drop-Frame)	29.97	Yes (Field 2)
NTSC DV 4x3 (720x480 @30i Drop-Frame)	29.97	Yes (Field 2)
NTSC DV 16x9 (720x480 @30i Drop-Frame)	29.97	Yes (Field 2)
PAL 4x3 (720x576 @24p)	24	No
PAL 16x9 (720x576 @24p)	24	No
PAL 4x3 (720x576 @25p)	25	No
PAL 16x9 (720x576 @25p)	25	No
PAL 4x3 (720x576 @25i)	25	Yes (Field 1)
PAL 16x9 (720x576 @25i)	25	Yes (Field 1)
PAL DV 4x3 (720x576 @25i)	25	Yes (Field 2)
PAL DV 16x9 (720x576 @25i)	25	Yes (Field 2)

Custom Title Format Settings

If you need to change the format of a title to a format that differs from any of the available preset formats, you can specify custom settings. Also, if Marquee creates a new title and cannot match the settings information it receives from the project in your editing application with one of the preset formats, it creates a custom format to match that settings information. The following table describes the available settings for custom title formats.

Title Format Settings

Setting	Description
Format	The initial image format of the scene you intend to create in this title. For more information on common title formats, see the previous table. The Format setting defaults to the last setting you used.
Frame rate	The intended frame rate, in frames per second. This setting controls playback in the Monitor window and the number of frames rendered to disk. This control appears only when Format is set to Custom.
Drop-frame (NTSC formats only)	Controls whether to skip two frame counts every minute on the minute except on the tenth minute when displaying time as timecode. For more information on drop-frame timecode, see "Understanding Time Display" on page 177. This control appears only when Format is set to Custom and is selected only when the Frame rate is set to 29.97. This setting has no effect for titles that are saved to a bin in your Avid editing application. Your Avid editing application controls whether material in a sequence uses drop-frame or non-drop-frame timecode.
Width	The horizontal dimension of the scene in pixels. This control appears only when Format is set to Custom.
Height	The vertical dimension of the scene in pixels. This control appears only when Format is set to Custom.
Aspect	The pixel aspect ratio of the display on which you intend to show the scene. Aspect can be set to: *4:3:* The aspect ratio for NTSC and PAL video resolutions. *16:9:* The aspect ratio for HDTV resolutions. *2.35:1:* The aspect ratio for Anamorphic resolutions. *Custom:* Any aspect ratio (defaults to 1:1). For example, to use standard film aspect ratios, use 1.85:1 (U.S.) or 1.66:1 (Europe). This control appears only when Format is set to Custom.

Title Format Settings (Continued)

Setting	Description
Interlaced	Controls whether to render the frames of the title as interlaced fields. This process, also known as field rendering, produces smoother motion, especially for objects moving horizontally across the frame. If your work is intended for video display using interlaced scanning, use this option. This control appears only when Format is set to Custom and is selected only when Height is an even number.
Dominance	The field order — which of the two fields of a video frame comes first in time. Dominance can be set to: *Field 1:* Field 1 comes before field 2 in the video frame. This option is equivalent to the Upper Field First setting in other applications. *Field 2:* Field 2 comes before field 1 in the video frame. This option is equivalent to the Lower Field First setting in other applications. When you are creating titles that will be saved to a bin in your Avid editing application, this value is always set correctly if you accept the new title settings chosen by Marquee, based on your project. When you are rendering material that will be imported into Avid editing applications as graphics files, set the correct field order based on the Avid video format for the project. Use Field 2 (Lower Field First) for Meridien NTSC projects. Use Field 1 (Upper Field First) for Meridien PAL and all AVR format projects. For more information, see “Field Ordering in Graphics Imports and Exports” in the Help for your Avid editing application. This control appears only when Format is set to Custom and is selected only when Height is an even number.

Changing Title Formats

In most circumstances, you do not need to change the format Marquee uses when it creates a new title, since that format is compatible with the current project in your editing application. If you need to change the format of a title, however, you can do so at any time.

To change the format of a title:

1. Do one of the following:
   - Select File > Duration.
   - Right-click (Windows) or Ctrl+click (Macintosh) in the Time Display area, and select Duration.

   The Title Preferences dialog box appears.
2. Do one of the following:
   - Select a preset title format from the Format list.

     The format you select automatically specifies frame rate, drop-frame timecode support, and whether field rendering is to be done. For descriptions of the preset title formats, see "Preset Title Formats" on page 246.
   - Select Custom from the Format list, and then specify individual settings.

   For descriptions of the custom Title Format settings, see "Custom Title Format Settings" on page 247.

If you intend to render your title in an image format that supports specific pixel dimensions, be sure to specify the same dimensions. For example, if you want to render your title in OMF format using a two-field Meridien™ compression such as 3:1, set your title dimensions to 720 x 486 (for NTSC) or 720 x 576 (for PAL). For more information on image formats, see "Output Control" on page 555.

Opening Titles

Open previously saved titles to continue working on them or to modify their settings. For example, you might need to fix a spelling mistake. You can open titles saved as .mqp files from within Marquee, or you can open titles saved as title clips in bins from within your Avid editing application. For more information on saving titles, see "Saving Titles" on page 257. For more information on opening Avid editing application title clips, see "Working with Marquee Titles in Your Avid Editing Application" on page 233 and "Editing with Titles" in the Help for your Avid editing application.

To open a title that has been saved as an .mqp file, do one of the following in Marquee:

- Select File > Open, and then select a file from the Open Title dialog box.
- 
  Click the Open button in the toolbar, and then select a file from the Open Title dialog box.
- (Windows) Select File > *recently opened or saved title name*.
- (Macintosh) Select File > Open Recent > *recently opened or saved title name*.

  The selected title appears in the Monitor window.

If the title refers to media no longer available (for example, if images were renamed, moved, or deleted), Marquee substitutes default media for them. For information on replacing missing media, see "Dealing with Missing Media" on page 251.

To switch to another open title:

- Select Window > *title name*.

Dealing with Missing Media

When you open a title that contains references to fonts or images that do not exist or have been moved to a different location on the system, Marquee replaces the missing fonts or images with the following default settings:

- For missing fonts, Times New Roman
- For missing images, an image that says "MISSING TEXTURE"

You can instruct Marquee to substitute an available font on your system for a missing font by editing the font.map file. For more information, see "Mapping Fonts" on page 252.

When you save a title that contains missing fonts or images, the replaced fonts or images are saved with the title.

If you need to move a title and its associated fonts and images to a different system, install the title's fonts and images in the same locations on the new system.

Mapping Fonts

If you open a title that refers to fonts that are not available on a system, you can map or associate an alternative font to use for the title. For example, you might need to remap fonts if the title was set up to use a Type 1 (PostScript®) variation of a font, but your system has only the TrueType variation with a different font name.

To map fonts:

1. Open the font.map file in a text editor such as Notepad (Windows) or TextEdit (Macintosh).

   On Windows, the font.map file is located in the Data subdirectory of the Marquee directory, for example, at the following location:

   drive letter:\Program Files\Avid*Editing Application*\marquee\Data

   On the Macintosh, the font.map file is located in the following location:

   drive name/Applications/*Editing Application*/Marquee

2. Add a line to the font.map file that contains the names of the font and its associated font, separated by a Tab character.

   For example, the following line replaces the Courier Bold Oblique font with the Courier New Bold Italic font, and vice versa:

   ```
   Courier Bold Oblique      Courier New Bold Italic
   ```

3. Save and close the font.map file.

Each font can map only to a single, alternative font.

Setting Preferences for the Current Title

Title preferences are settings, such as the title's format and unit of measure, that affect Marquee's operation for the current title. Unlike General preferences, Title preferences are saved with the title.

For more information on General preferences, see "Adjusting General Preferences" on page 210.

To adjust the current title's preferences:

1. Do one of the following depending on your operating system:
   - (Windows) Select File > Preferences > Current Title.
   - (Macintosh) Select Marquee > Preferences > Current Title.

   The Title Preferences dialog box appears. This dialog box contains three groups of settings, located in separate tabs: Scene, User Interface, and Projection.
2. Click the tab corresponding to the title preferences you need to adjust.
   - For information on the Scene tab, see "Scene Preferences" on page 253.
   - For information on the User Interface tab, see "User Interface Preferences" on page 253.
   - For information on the Projection tab, see "Projection Preferences" on page 255.
3. Click OK.

Scene Preferences

Scene preferences describe the duration, frame rate, pixel dimensions, image aspect, and field dominance settings for the scene. These settings are the same as those available in the Title Preferences dialog box when you access it by selecting File > Duration or by right-clicking the Time Display area and selecting Duration. For more information on adjusting these settings, see "Title Duration and Title Formats" on page 243.

User Interface Preferences

User Interface preferences control the displayed unit of measure for distances and the displayed unit of time. For more information, see "Measurement of Time and Distance in Marquee" on page 176.

The following table describes the settings in the User Interface tab of the Title Preferences dialog box.

Title Preferences – User Interface Tab

Control	Description
Unit of measure	The unit of measure for properties that refer to distance, such as font height and the dimensions of an object. You can select one of the following: *Percentages:* Percentage of the scene's height. For example, if an NTSC title is 720 pixels wide by 486 pixels tall, a distance of 50 percent is equivalent to 243 pixels. *Pixels:* Image pixels in the scene. For example, an NTSC title is 720 pixels wide by 486 pixels tall. *Points:* 72 points per inch. For example, 144 points is equivalent to two inches. This is the default unit of measurement. In Marquee, pixels and points are equivalent.
Display time in	The unit of time. You can select one of the following: *Timecode:* Timecode units, controlled by the frame rate and drop-frame settings in the Title Preferences dialog box. This is the default unit of time. *Frames:* Frame numbers representing output frames at the current frame rate.  *You can also switch between Timecode and Frames display at any time using the Time Display shortcut menu. For more information, see "Changing How Time Is Displayed" on page 265.*

Title Preferences – User Interface Tab (Continued)

Control	Description
Update animation frames on	Controls when to display or use the actual frame of an animation texture. If you do not select to use the actual frame, the first frame of the animation will be used. You can select any of the following: *Park:* Displays the actual frame when you click (park) at specific points in time along the Time track in the Timeline window. This option is selected by default. *Scrub:* Displays the actual frame as you drag across the Time track (known as scrubbing or shuttling) in the Timeline window or the Time Display area in the Monitor window. When you select this option, scrubbing will be less interactive as more animation textures appear in a scene. This option is deselected by default. *Play:* Displays the actual frame during playback. When you select this option, playback will be less real-time as more animation textures appear in a scene. This option is deselected by default. *Render:* Uses the actual frame when you preview or render frames. You will usually want to use the actual frame during rendering to produce an accurate scene. This option is selected by default.

Projection Preferences

Projection preferences control the amount of distortion on objects that are rotated or that are not flat.

The following table describes the settings in the Projection tab of the Title Preferences dialog box.

Title Preferences – Projection Tab

Control	Description
Projection	Controls whether objects that have depth (such as extruded or beveled objects) are distorted to simulate their depth or distance from the viewer. You can select one of the following: *Orthographic:* Objects are not distorted to make depth more realistic. With orthographic projection, it is as if the object is very far away from the viewer, and distortion is not apparent. Although this type of projection is not realistic, you might find it useful to have an undistorted texture on an object rotating around the X or the Y axis.  *Orthographic projection can also be useful for simulating depth shadows like those available in the Title tool. For more information, see "Simulating Depth Shadows" on page 518.* *Perspective:* Objects are distorted to simulate depth. The farther an object, the smaller it looks. Conversely, the closer an object, the larger it looks. You can see the effect of perspective projection on objects rotated around the X or the Y axis. This is the default type of projection.
Vertical Field of View (degrees)	For perspective projection, the viewable area in the scene. With the line of sight between the viewer and an object, this angle defines the area above and below the line of sight that appears in the scene. For example, a 30-degree angle lets you see 15 degrees above and below the line of sight. A value of 5 produces minimum distortion (results are similar to orthographic projection), whereas a value of 90 produces maximum distortion (as if the object is close to the viewer).

Saving Titles

You can save titles in several different ways, depending on the requirements of your work. You can:

- Save your title to a bin in your editing application.

  This creates a title clip (and associated media) in your editing application that behaves just like a title created with the Title tool but that remains associated with Marquee so that it can be modified.

  For information on saving titles to bins, see "Saving Titles to Your Avid Editing Application" on page 226. For more information on how Marquee and your Avid editing application work together to create a title clip, see "How Marquee and Your Avid Editing Application Save Titles" on page 221.

- Save your title as a Marquee (.mqp) file.

  This creates a file that contains all the Marquee information about the title but does not create a version of the file that can be used with your Avid editing application. Save a title as an .mqp file to store a title in progress that you plan to finish later, to preserve recent changes to a title, or to create a copy of a title that is independent of your editing application.

- Save your title as a template.

  This creates a library element that is stored in the Templates library. The element contains all the information about the title's objects, layout, and other properties, so you can use it to quickly create other titles with the same look and behavior.

  For more information on templates, see the chapter "Working with Templates" on page 531.

You can also render a version of your title as a single graphics file or a sequence of graphics files, in a variety of graphics formats. You can then use these rendered files in other applications. For more information, see the chapter "Previewing and Rendering" on page 553.

By saving your work, you prevent the loss of all your changes if the system or the application stops working.

You can give your titles descriptive names for easier identification and retrieval. You can update a title using the same name or assign different names for your works in progress, for example, when you are creating several variations of the same basic look.

To save the current title as an .mqp file under its current name, do one of the following:

- Select File > Save.
-  Click the Save button in the toolbar.

To save the current title as an .mqp file under a different name or in a different location:

- Select File > Save As, and then specify a new name or location in the Save Title dialog box.

Closing Titles

Once you are finished with your work, you can close the title to work on another one, or you can quit Marquee.

To close the current title:

- Select File > Close (Windows) or File > Close *title name* (Macintosh).

  If the title has been modified, you are prompted to save these changes.

Viewing Titles

You have a wide range of options for controlling how you view titles while you are creating and modifying them. For example, you can focus on one part of the title by panning or zooming, view the objects in a title from the top or side, view the title at a particular point in time, and display guides to help you position objects.

Panning and Zooming

To change the magnification or location within the Monitor window, use the Pan and Zoom tools. Panning or zooming does not change the position of objects in the scene.

To pan in the Monitor window, do one of the following:

- Use the scroll bars along the edges of the window.
-  Click the Pan tool, and drag in the window.
- In any tool, Ctrl+drag in the window with the right mouse button.
- In any tool, drag in the window with the middle mouse button, if you have a three-button mouse.

To center the scene at the location of the pointer:

- Ctrl+Shift+click with the right mouse button.
- Shift+click with the middle mouse button, if you have a three-button mouse.

To zoom in on a part of the scene:

-  Click the Zoom tool, and then click at the location you want to magnify.

To zoom out:

-  Click the Zoom tool, and then either Shift+click or Ctrl+click (Windows) or ⌘+click (Macintosh) at the location whose magnification you want to decrease.

To interactively zoom the image, do one of the following:

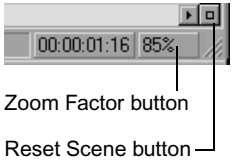
- Ctrl+Shift+drag with the right mouse button.
- Shift+drag with the middle mouse button, if you have a three-button mouse.

  Drag up to increase or down to decrease magnification.

To zoom the scene to fit the maximum viewable area of the Monitor window, do one of the following:

- Select View > Zoom to Fit.
- Click the Zoom Factor button in the status bar, and select Zoom to Fit.
- Click the Reset Scene button in the lower right corner of the Monitor window.

  This button also centers the scene in the viewing area and returns the scene to Scene view if it has been tumbled or set to another view.



To adjust the scene to 100% magnification within the Monitor window:

- Select View > Actual Size.

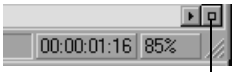
Viewing the Scene from Different Angles

The Monitor window can display all the objects in the scene or current layer. You can view the scene as it will be previewed on screen or rendered to disk. If you want to view the stacking order of objects in a 2D layer or the relative location of objects in a 3D layer, you can view specific sides of the current layer. You can also use the Tumble tool to view the scene or current layer from different angles.

When you are viewing a side of the current layer or viewing the scene or current layer at an arbitrary angle, you are not changing how the scene will be previewed on screen or rendered to disk.

To view the scene as it will be rendered, do one of the following:

- Click the Scene View button in the toolbar.



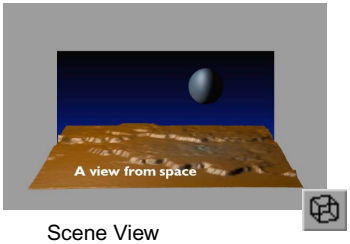
Reset Scene butto

- Click the Reset Scene button in the lower right corner of the Monitor window.

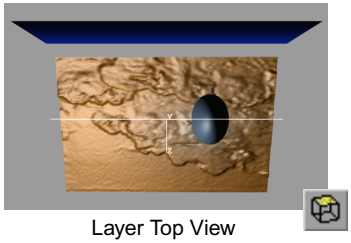
  This will zoom the scene to fit in the Monitor window.

To view the current layer from different sides:

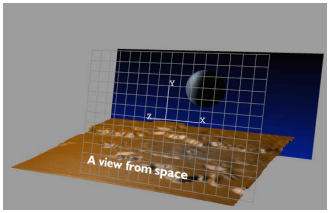
- Click one of the Views buttons in the toolbar.



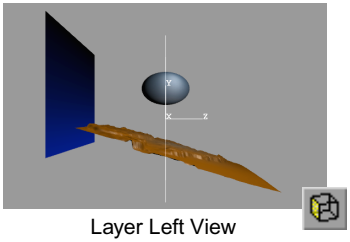
Scene View
(default viewing angle)



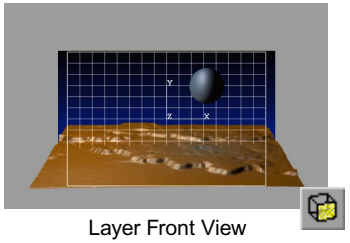
Layer Top View



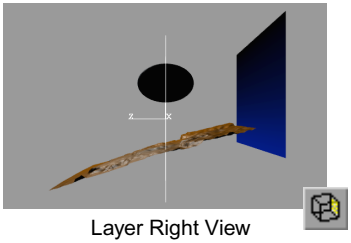
Scene View
(custom viewing angle)



Layer Left View



Layer Front View



Layer Right View

To tumble the scene or current layer in the Monitor window, do one of the following:

- Click the Tumble tool, and then drag the contents of the Monitor window.
- In any tool, Ctrl+Shift+drag using the right mouse button.
- In any tool, Ctrl+drag with the middle mouse button, if you have a three-button mouse.

Shadows and overlap effects might not look the same as when you are viewing the scene as it will be rendered (that is, Scene view). For more information on shadows and overlap effects, see "Adding Shadows to Objects" on page 509 and "Controlling the Appearance of Overlapping Surfaces" on page 466.

When you tumble the scene or current layer, a lightly colored orientation grid and axis labels appear in the Monitor window. The grid represents the size and position. The X, Y, and Z axis labels identify the orientation of the frame, with the Y label identifying the top of the frame and the Z label identifying the front of the frame.

Viewing the Scene Adjusted for Pixel Aspect

When you are working on a scene that will be projected on a video monitor or other display that does not use the same aspect ratio as your computer monitor (known as the output pixel aspect), you will want to view the scene at the same aspect ratio. This ensures that images do not appear stretched.

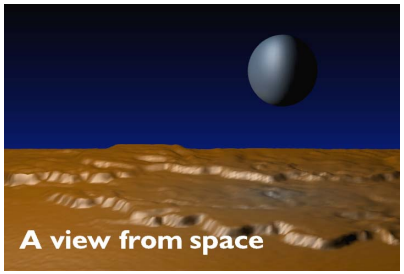
By default, the Monitor window's contents are adjusted for the output pixel aspect of the title. However, you can also display the contents of the Monitor window as it would appear on a computer monitor at 1:1 aspect (also known as square pixels).

Only the scene in the Monitor window is adjusted for pixel aspect. Frames are still previewed on screen and rendered to disk at 1:1 aspect, because the final projection of the rendered image will produce the intended result.

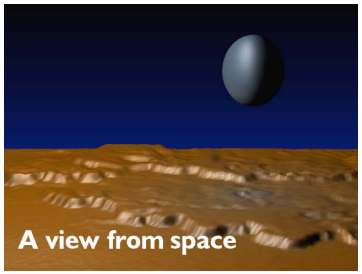
To switch the aspect ratio of the Monitor window:

- Select View > Square Pixels.

When Square Pixels is selected, the scene is displayed at 1:1 aspect ratio. When Square Pixels is deselected, the scene is displayed at the title's aspect ratio.



Square Pixels selected
(Pixel aspect = 1:1)



Square Pixels deselected
(Pixel aspect = 4:3)

Moving Through Time

The duration of a title is the length of time during which objects can exist in the scene. You can view a title at any point in its duration. To see how text rolls or crawls, pages change, or animated objects change over time, change the current time in the title.

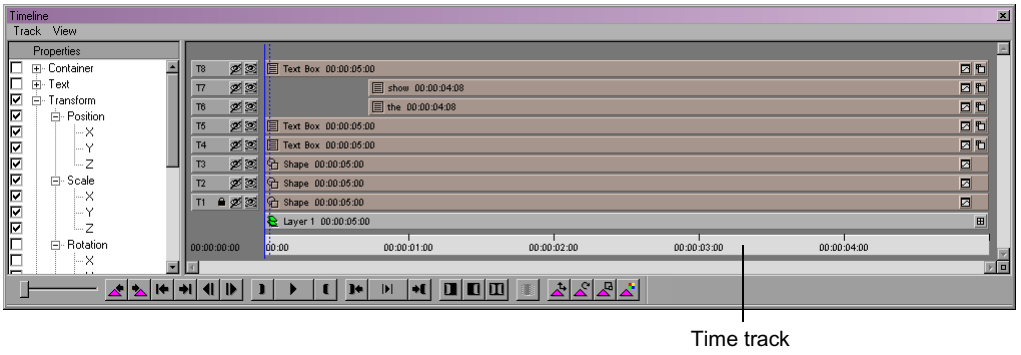
Remember that titles you plan to save as Avid Rolling Titles or Crawling Titles will have a duration proportional to the number of screenfuls of text when saved to a bin. You can change the Preview Duration for the title in Marquee to see how the roll or crawl looks at a particular speed, but any adjustments that affect the final length of the roll or crawl in your sequence must be made in your editing application.

Jumping to Specific Points in Time

To display the scene at a different point in time:

To open the Timeline window, press Ctrl+T (Windows) or ⌘+T (Macintosh).

- Click at the time location along the Time track of the Timeline window.



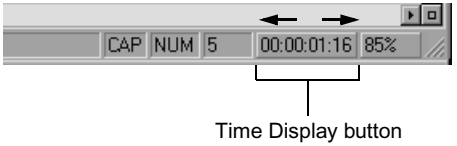
The current time appears in both the Monitor and Timeline windows.

In Marquee, you must click in the Time track to move the position indicator and go to a new location in time. Clicking in the tracks that represent the title objects themselves does not change your location in time.

Browsing Through Titles

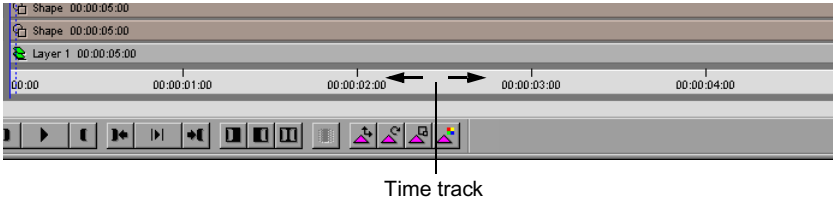
To browse through the title (known as shuttling), do one of the following:

- Click the Time Display button in the lower right corner of the Monitor window, and then drag left or right.



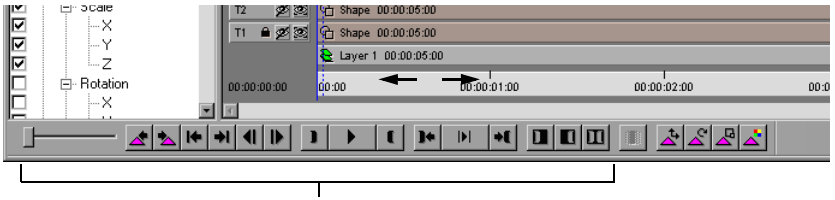
To open the Timeline window, press Ctrl+T (Windows) or ⌘+T (Macintosh).

- Drag within the Time track, or drag the position indicator in the Timeline window.



- Use the Transport controls along the bottom of the Timeline window.

  For more information on using the Transport controls, see "Viewing Animated Properties" on page 435.



To shuttle through time at a slower rate:

- Ctrl+click the Time Display button, and then drag left or right.

To shuttle in 1-second intervals:

- Shift+click the Time Display button, and then drag left or right.

  You can use the keyboard shortcuts for the Transport controls even when the Timeline window is not open. For a list of keyboard shortcuts, see the Help.

Finding a Frame at a Known Timecode

To go to the frame at a specific timecode value:

To open the Timeline window, press Ctrl+T (Windows) or ⌘+T (Macintosh).

1. Click in the Timeline window to make it active.
2. Using the numeric keypad, type the timecode for the frame and press Enter (Windows) or Return (Macintosh).

   You can enter timecode as follows:

   - *SMPTE timecode:* Use two digits each for the hours, minutes, seconds, and frames. For example, type `00230200` to view the scene at 00:23:02:00.
   - *Current timecode:* If you are looking for a timecode that starts at the same hour, minute, or second in the current timecode, just type the last digits. For example, if the current timecode is 00:05:12:13 and you enter `425`, the scene changes to 00:05:04:25.

- *Current timecode (start of a second):* If you want to jump to the first frame or start of a second, replace the last two digits with a period (.). For example, if the current timecode is 00:05:12:13 and you type **`4.`**, the scene changes to 00:05:04:00.

The timecode does not appear as you are typing it.

Using Frame Offset to Go to a Frame

To move a specific number of frames forward or backward from the current frame:

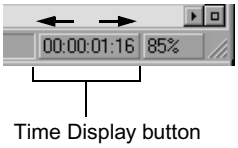
To open the Timeline window, press Ctrl+T (Windows) or ⌘+T (Macintosh).

1. Click in the Timeline window to make it active.
2. Using the numeric keypad, type a plus sign (**`+`**) to move forward or a minus sign (**`–`**) to move backward from the current position.
3. Using the numeric keypad, type a number for the frame offset and press Enter (Windows) or Return (Macintosh). Use the following formats:
   - *One or two digits:* Enter a number between 1 and 99 to move a specific of frames forward or backward. For example, enter **`–42`** to move back 42 frames.
   - *Three or more digits:* Enter 100 or a greater number to move forward or backward a specific number of hours, minutes, seconds, and frames. For example, if you enter **`+100`** you move forward one second and zero frames.
   - *One or more digits, followed by a period:* Enter 1 or a greater number, followed by a period (.), to move forward or backward a specific number of hours, minutes, and seconds. For example, if you enter **`–5.`** (equivalent to entering **`-500`**), you move backward 5 seconds.

The number of frames does not appear as you are typing it.

Changing How Time Is Displayed

By default, time is displayed as timecode in the Monitor and Timeline windows. However, you can display time as frames if it is easier for you to synchronize objects in a scene by using frame numbers.



To change how time is displayed:

- Right-click (Windows) or Ctrl+click (Macintosh) the Time Display button, and select a time option.

For more information on the available options for displaying time, see "Understanding Time Display" on page 177.

Setting the Quality Level for Viewing in the Monitor Window

You can change the on-screen quality of objects in the Monitor window by adjusting the quality level. Decreasing the quality level improves the responsiveness of moving and editing objects, but at the expense of visual accuracy. Increasing the quality level improves the visual accuracy of objects, but at the expense of responsiveness.

The Quality setting does not affect the rendering quality. To adjust the quality of rendered frames, use the settings in the Render Options dialog box. For more information, see "Selecting Options in the Render Options Dialog Box" on page 555).

The Quality setting is useful when working with objects that have soft shadows, since soft shadows reduce the responsiveness of Marquee. A good approach is to use a Medium or High quality level while you are creating your soft shadows (to get the most accurate impression of their finished appearance), and then to reduce the quality level to Low to speed up responsiveness while you complete work on the title.

Antialiasing does not appear in the Monitor window on objects that use an edge (see "Creating Edge Effects" on page 487) or that are extruded (see "Extruding Objects" on page 492). To see antialiased edges, either preview a frame on screen or render a frame to disk (see the chapter).

To set the quality level, do one of the following:

- Select View > Quality > *quality level*
- Select View > Quality > Custom to set custom quality-level options.

  For information on each quality level, see the following table.

On-Screen Quality Levels

Quality	Example	Description
Low		Produces lower-quality objects and draws the quickest of the available levels. The outlines of objects appear faceted. Use this quality level when you need the quickest response time (feedback) and are not concerned with the visual accuracy of the objects.
Medium		Produces average-quality objects. The edges of objects are antialiased (smooth). This setting is the default and is sufficient for most titles. Use this quality level as a starting point. If you find that the quality should be better, use the High level. Otherwise, use Medium for the best balance between rendering speed and visual accuracy.
High		Produces higher-quality objects but might take longer to draw on screen, especially if motion blur is enabled. The edges of objects are antialiased. Use this quality level when you need the highest level of visual accuracy or realism.

To specify custom quality settings:

1. Select View > Quality > Custom.

   The Custom Quality dialog box appears.

2. Adjust the parameters that affect the quality of objects drawn in the Monitor window.

   The following table describes the Custom Quality parameters.

3. Click OK.

Custom Quality Parameters

Parameter	Description
Antialiasing	Controls the smoothness of the edges of objects. **None** — Produces jagged or aliased edges **Fast 2D** — Produces smooth or antialiased edges **Medium**, **High** (rendered frames only) — Produce even smoother edges *Fast 2D draws flat objects (not objects that are extruded, have an edge, or are DVEs) faster, especially in high-resolution (film, DTV) titles.*
Texturing	Controls the quality of textured surfaces, in proportion to the time required to draw the texture onto the surface. The lower the texturing quality, the faster it is to draw the texture, and vice versa. Texturing can be a slow operation, depending on the configuration. At the Low texturing setting, large textures mapped onto small surfaces might appear pixelated. However, some configurations may not produce noticeable differences among texturing settings.
Lighting	Controls the quality of textured, lit surfaces. **Low** — Produces the normal quality for a texture. **High** — Produces a higher quality result. This parameter has no effect on textured surfaces whose specular color is black. Low quality uses Low lighting. Medium and High quality use High lighting.
Tessellation	Controls the smoothness or approximation of curved edges on characters and shapes. Tessellation can be a value between 0.10 and 3.00, with 1.00 being the default approximation, 0.50 being half as precise (more faceted), 2.00 being twice as precise (less faceted), and 3.00 being three times as precise (even less faceted). This setting can have a significant effect on performance. Low quality uses a setting of 0.50. Medium quality uses a setting of 1.00. High quality uses a setting of 3.00.

Custom Quality Parameters (Continued)

Parameter	Description
Shadowing	Controls the quality of soft shadows. Shadowing can be a value between 0.10 and 2.00, with 1.00 being the default softness quality, 0.50 being half as good, and 2.00 being twice as good. This setting can have a significant effect on performance. Low quality uses a setting of 0.50. Medium quality uses a setting of 1.00. High quality uses a setting of 2.00.
Motion blur (Previewed and rendered frames only)	Controls the quality of fast-moving objects in a motion-blurred scene. Motion blur can be a value between 0.20 and 2.00, with 1.00 being the default motion blur quality, 0.50 being half as good, and 2.00 being twice as good. This setting can have a significant effect on performance. This setting affects previewed and rendered frames only. The scene in the Monitor window never shows motion-blurred objects. Low quality uses a setting of 0.20. Medium quality uses a setting of 1.00. High quality uses a setting of 2.00.

Displaying Guides

You can display various nonrendering guides or hide parts of objects in the Monitor window to position objects relative to each other and to the edges of the viewable area.

You can set each open title to use guides differently.

Showing the Safe Action and Safe Title Areas

The safe action area is the region within a frame where action is guaranteed to be visible on television displays. You can show the safe action area to help position text and graphics near the edges of the video display. You can also use it to ensure that objects you want to overlap the edges actually do, such as a colored gradient that should appear in the lower one-fourth of the video display.

The safe title area is the region within a frame where titles (text objects) are guaranteed to be readable on television displays. The safe title area is smaller than the safe action area.

To show or hide the safe action and safe title areas, do one of the following:

- Select View > Safe Action/Title.
-  Click the Safe Action/Title button in the toolbar.

When the safe title area is displayed, objects you move near the safe title guide snap to it. However, you can still move the objects outside the safe title area.

Showing Construction Lines

Construction lines define the bounds of container objects, such as decks (described in "Deck Objects" on page 279), text, and the scene itself. Construction lines also display the shadow plane for projected shadows (see "Changing the Location of Shadows" on page 512). By showing construction lines, you can identify the location and size of containers and shadow planes.

By viewing construction lines, you can identify empty containers.

To show or hide construction lines:

- Select View > Construction Lines.

Construction lines appear as dashes around the borders of containers, and as boxes with Xs through them for shadow planes.

Showing the Grid

The grid consists of evenly spaced points that you can use to align objects to each other or to the sides of a scene. The grid uses a standard 16 x 12 layout.

The grid appears only in the Monitor window. It does not appear in the final output.

To show or hide the grid for the current container:

- Select View > Grid.
- Click the Grid button in the toolbar.

The grid appears as points at the intersections of the grid lines, as shown in the following illustration.

For information on aligning objects to the grid, see "Snapping Objects to a Grid" on page 287.

Showing Objects Viewable Within the Frame

The frame of a title is the dimensions of the scene. These scene dimensions represent the output resolution. If there are objects moving into or out of a frame over time, you might want to show or hide those parts of the objects that are "outside the frame." Viewing only the visible portions of objects might make previewing the title less distracting. However, when you are editing objects, you will usually want to show all objects.

Objects outside the viewable frame will be hidden only if you are in Scene View mode and you have not tumbled the scene.

To show or hide all objects regardless of their location:

- Select View > Clip to Frame.

Clip to Frame deselected

Clip to Frame selected

Although objects might be hidden from view, you can still click where they are located to select them.

Working with Backgrounds

You can display a background image that fills the whole scene in a Marquee title. The default background image is a single frame that is generated from video in your Avid editing application as a reference while you work. You can use this background, or you can import a different image that will render as part of the title. You can choose to view the background or to hide it from view at any time.

Using the Default Background

By default, Marquee creates a graphic image from the video frame at the location of the position indicator in the currently active sequence in your editing application and displays this image as a reference background. This background is not rendered as part of the title but helps you during title creation by allowing you to see your title objects in relation to the video over which they will be composited in your editing application. You can update this image at any time while creating a title unless you have entered Marquee while in Effect mode in your editing application (for example, to revise a title that has been edited into a sequence).

Marquee cannot play the editing application sequence as a video stream, so the reference graphic images are your best guide to the positioning of your title objects with respect to the video over which you intend to key them. If there is a lot of movement in the video, the title, or both, update the reference image as often as necessary to check that your title objects are positioned as you want them.

The image that Marquee uses as the background is saved in the Avid Textures folder of the Textures library using the name Video Background. You can apply this image from the Textures Library window like any other texture image; for example, you can apply it to the surface of a specific title object. However, if you update the background, Marquee creates a new version of the Video Background image that overwrites the previous one and replaces any use of it in the title. Only one Video Background image is available at a time.

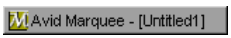
If you want to use a specific frame from your video sequence as a texture that is permanently available in Marquee, you can export that frame from your Avid editing application as a graphics file and then import it into the Marquee Textures library. For more information, see "Importing and Deleting Textures" on page 477.

To update the default background image while creating a title:

1. Switch to your editing application.

   For more information on switching between Marquee and your editing application, see "Switching Between Marquee and Your Avid Editing Application" on page 220.

2. In the Record monitor or Timeline of your editing application, move the position indicator to the video frame that you want to use as the new background image.



3. Return to Marquee.

   Marquee replaces the previous background image with an image generated from the new frame you selected. If the Background button is selected in Marquee, the new background image appears in the Monitor window.

Selecting and Removing Backgrounds

You can select any still image or animation file as a background.

The selected image or animation appears centered behind all objects in the scene and replaces the default video background. The image or animation appears cropped (if larger than the pixel dimensions of the scene) or padded with a black border (if smaller than the pixel dimensions of the scene). You cannot resize or reposition the background image.

Unlike the default video background that is taken from your Avid editing application, any image or animation file that you import as a background is rendered as part of the title.

If you select an animation file, only the first frame of the animation appears, although previewed or rendered frames will use the correct frame of the animation. If you select a file that has an alpha channel, the alpha channel will be preserved when you render the scene.

To select the background image or animation to use as a reference:

1. Select File > Import > Background.

   The Import Background dialog box appears.

2. Select the single-image or animation file to use as the reference background, and then click OK.

   Marquee imports the image, and it appears in the Monitor window.

Unlike the default video background, an image imported as a background does not appear in the Textures library.

To remove the reference background:

- Select Edit > Clear Background.

  The background appears black.

Displaying the Background

You can control the visibility of the background image to compare the scene with and without the background.

To show or hide the reference background, do one of the following:

- Select View > Background.
- 

  Click the Background button in the toolbar.

The visibility of the background image or animation also controls its appearance in previewed or rendered frames.

Chapter 7
Creating and Editing Objects

This chapter describes how you create and edit the objects — the basic building blocks — of a title. This chapter also describes the concepts common to all types of objects and object properties that you modify in the Properties window.

This chapter covers the following topics:

Understanding Objects

Objects are the building blocks of a title. An object is anything you can create or manipulate in the Monitor window. For example, text, two-dimensional graphics (rectangles and circles), and even the background canvas itself are objects.

You can create and modify the following types of objects:

- Text objects
- Graphic objects
- Path objects
- DVE objects
- Deck objects
- Layer objects

Some objects, such as text and deck objects, are containers for other objects; the scene itself is the master container for all objects in a title. These container objects can contain other objects called subobjects. For example, a text object's subobjects are the characters that you type within the text object. You can modify subobjects separately, as described in "Editing Subobjects in a Container Object" on page 417. For more information on the containment relationships between objects, see "The Marquee Object Model" on page 169.

Text Objects

Text objects contain characters (letters, numbers, and other symbols) that you either type or import. The characters in a text object can be static, move vertically (rolling text), move horizontally (crawling text), or move along a path (path text). You create text objects using the Text tool. For more information on text objects, see the chapter "Working with Text" on page 323.

Graphic Objects

Graphic objects are geometric shapes, such as rectangles and ellipses. You create graphic objects by using the Shape, Rectangle, and Ellipse tools. For more information on graphic objects, see the chapter "Working with Graphics" on page 361.

Path Objects

Path objects or paths are shapes onto which you can place or crawl text. You can convert shapes into paths or paths into shapes. For more information on path objects, see the chapter "Placing and Moving Text on Paths" on page 441.

DVE Objects

Digital video effect (DVE) objects are objects whose appearances you can deform based on an effect or image you apply to them. For example, you can create spheres, page curls, and ripples. For more information on DVE objects, see the chapter "Working with Digital Video Effects" on page 379.

Deck Objects

Deck objects are containers for pages, containers that appear successively during the duration of the deck. Each page can contain multiple text, graphics, and even other deck objects. You create pages in a deck to produce a slide-show effect. You create deck objects using the Page tool. For more information on page and deck objects, see the chapter "Working with Decks and Pages" on page 389.

Layer Objects

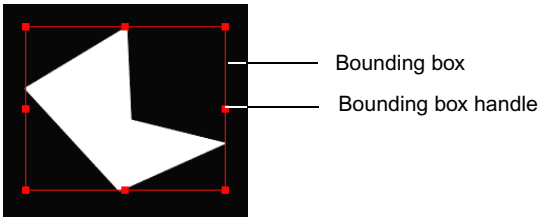
Layer objects or layers are containers for objects that allow you to create simple two-dimensional effects or more complex three-dimensional effects in which objects can intersect.

For more information on layer objects, see the chapter "Working with Layers" on page 403.

Selecting and Deselecting Objects

To perform any editing operation on an object, you must first select it. You can select multiple objects to perform the same operation, such as changing the color, on multiple objects at the same time. The number of selected objects appears in the Monitor window's status bar.

When you select an object, a bounding box appears that marks the bounds or extent of the selected object. You resize the object by moving one of the bounding-box handles located at the corners and sides of the bounding box.



To select a single object:

- In the Monitor window, click the Edit tool, and then click the object or drag a selection box around the object.
- In the Timeline window, click the object's track.
- In the Layers window, click the object.

To select multiple objects:

- In the Monitor window, click the Edit tool, and then Shift+click the objects or drag a selection box around them.
- In the Timeline or Layers window, Shift+click the objects.

To switch (toggle) the selection of an object, keeping other selected objects selected:

- Ctrl+click (Windows) or ⌘+click (Macintosh) the object.

To select all visible objects within the current container:

- Press Ctrl+A (Windows) or ⌘+A (Macintosh).
- Select Edit > Select All in Container.

If the currently selected object is a container object (text or deck), Select All in Container selects all the objects in the container's container (that is, all the objects at the same hierarchy level as the selected object) rather than the objects within *the selected object.*

To select characters in a text object or a grouped object in a group while in the Edit or Rotate tool:

- Alt+click (Windows) or Option+click (Macintosh) the character or object.

To deselect all objects:

- Click away from any object.
- Select Edit > Deselect All.

Arranging Objects

You can copy and move objects around in the scene and align objects relative to the scene or each other. You can also remove objects you no longer need.

Copying, Pasting, and Deleting Objects

You can use standard cut, copy, and paste operations to duplicate objects, as well as using cut and delete operations to remove objects. Once you have cut or copied an object, you can move or duplicate it to a different part of the scene, a different page of a deck, or a different title if more than one title is open.

To copy an object to a different location or page:

1. Select the object you want to copy.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Select Edit > Copy.
3. Pan or zoom to the location in the scene or the time in the title to copy the objects. To copy an object to a page, click in the page to activate it.
4. Select Edit > Paste.

   A copy of the Clipboard's contents appears within the target container. If the original object was locked, the copy of the object is also locked.

To move an object to a different location or page:

1. Select the object you want to move.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Select Edit > Cut.

   The selected object is placed on the Clipboard.

3. Pan or zoom to the location in the scene to move the object. To move an object to a page, click in the page to activate it.

4. Select Edit > Paste.

   A copy of the Clipboard's contents appears within the target container.

To remove an object from the scene:

1. Select the object you want to remove.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Select Edit >Cut, Edit > Delete (Windows), or Edit > Clear (Macintosh).

   - When you select Cut, the object is copied to the Clipboard and you can paste it in another location.
   - When you select Delete (Windows) or Clear (Macintosh), the object is not copied to the Clipboard (the existing contents of the Clipboard are preserved).

Moving Objects Within the Scene

You can move objects freely within the scene, constrained horizontally, or constrained vertically. For rotated objects, you can move an object along the global or local axes. You can also prevent objects from being moved accidentally when clicking objects.

If the safe title guide is currently displayed (see "Showing the Safe Action and Safe Title Areas" on page 269), moving an object near this guide automatically snaps the sides and corners of an object's bounding box to the guide. Subobjects of containers, such as objects in a page and characters in a text box, do not snap to the safe title guide.

To move an object freely:

- Drag the selected object to a different location.
- (Rolling and crawling text objects only) Shift+drag the selected object to a different location.

To move an object horizontally or vertically:

- Shift+drag the selected object.
- (Rolling and crawling text objects only) Drag the selected object to a different location.

  The direction you first drag becomes the constrained axis of movement.

The dragging and Shift+dragging functions are reversed for rolling and crawling text objects to make it more difficult to accidentally adjust the object so that it no longer meets the requirements for an Avid Rolling Title or Crawling Title. When you drag a rolling or crawling text object that you want to keep as an Avid Rolling Title or Crawling Title, make sure that you drag in the correct direction. For rolling titles, you can move the title only horizontally; for crawling titles, you can move the title only vertically. For more information, see "Avid Editing Application Title Types Created from Marquee Titles" on page 222.

To move a selected object by one screen pixel (known as nudging an object):

- Press one of the arrow keys.

To move a rotated object freely within its rotated, local plane:

- Ctrl+Alt+drag (Windows) or ⌘+Option+drag (Macintosh) the selected object.

To move a rotated object horizontally or vertically along its local axes:

- Ctrl+Alt+Shift+drag (Windows) or ⌘+Option+Shift+drag (Macintosh) the selected object.

  The direction you first drag becomes the constrained axis of movement.

Locking and Unlocking Objects

You can lock objects to prevent moving them accidentally when you select them in the Monitor window.

When an object is locked, a small padlock appears in the selected object's track in the Timeline window, and the object's bounding box appears dimmed in the Monitor window. When a light source (see the chapter "Working with Lights and Shadows" on page 497) is locked, a small padlock appears next to the light source in the Monitor window. The track in the Timeline window for a locked object cannot be trimmed or moved. However, you can still modify the object's properties in the Properties and Timeline windows.

To lock an object:

1. Select the object you want to lock.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - Select Object > Lock.
   -  Click the Lock button in the toolbar.

To unlock an object:

1. Select the object you want to unlock.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - Select Object > Unlock.
   -  Click the Unlock button in the toolbar.

Stacking Objects

If you want an object to appear in front of or behind another object (for example, moving a gradient oval behind some text) or you want an object to be drawn before or after another object, change the stacking of objects. You can stack objects from the Monitor or the Layers window.

Although objects in a 3D layer are positioned based on their positions along the Z axis, the stacking order of an object still affects perspective and overlap effects.

You cannot stack characters in a text box.

To move an object behind its current container, remove the object from its container first. For more information, see "Copying, Pasting, and Deleting Objects" on page 281.

To stack an object in the Monitor window:

1. Select the object whose stacking order you want to change.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   
   - To move the object in front of all other objects in the current container, either select Object > Bring to Front or click the Bring to Front button in the toolbar.

   
   - To move the object forward by one level, either select Object > Bring Forward or click the Bring Forward button in the toolbar.

   
   - To move the object backward by one level, either select Object > Send Backward or click the Send Backward button in the toolbar.

   
   - To move the object behind all other objects in the current container, either select Object > Send to Back or click the Send to Back button in the toolbar.

   If you select multiple objects in nonadjacent levels, the original relative order of the selected objects is preserved.

You cannot move an object between layers (see the chapter "Working with Layers" on page 403) using these menu commands or toolbar buttons. For information on moving objects between layers, see "Copying and Moving Objects Between Layers" on page 408.

To stack an object in the Layers window:

1. Click the object's entry in the window.
2. Do one of the following:
   - Drag the object between other objects or above a container object.

When you drag an object above a container, the object appears at the top of the container.

- Right-click (Windows) or Ctrl+click (Macintosh) the object, and select Move > *type of move*.

  The To Top, Up, Down, and To Bottom commands in the Layers window's shortcut menu are equivalent to the Bring to Front, Bring Forward, Send Backward, and Send to Back menu commands in the Monitor window's Object menu.

Positioning and Aligning Objects

You can move objects to specific locations within the scene. For information on positioning objects relative to a background image, see "Working with Backgrounds" on page 273.

Positioning Objects at Specific Locations

Each container has nine common locations (the four corners, four sides, and center) where you can quickly position objects. If the safe title guide is displayed, you can quickly position objects within it instead of the scene container.

To position an object within its container (layer, page, or group):

1. Select the object you want to position.

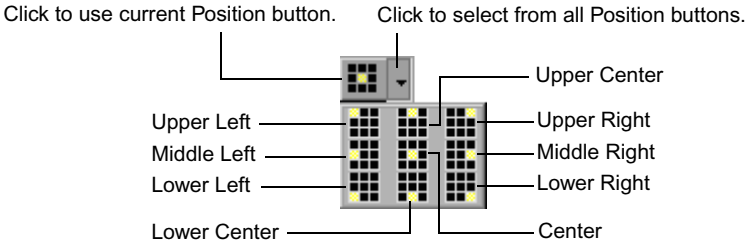
   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Click the Scene View button or one of the other Views buttons in the toolbar to make sure you are not viewing the scene or layer at an arbitrary angle.

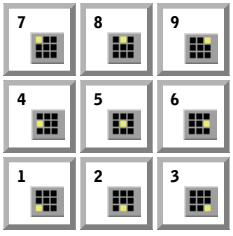
Use the Lower Left, Lower Center, or Lower Right buttons for lower-third titles.

3. Do one of the following:

   - To use the current position setting, click the Position button.
   - To select a different position, click the arrow next to the Position button, and then select a different Position button.



The selected Position button becomes the current Position button. If you need to select that same position, simply click the Position button (not the arrow next to it).



- To use a specific position, press a key between 1 and 9 on the numeric keypad.

  (Windows only) Be sure the Num Lock key is enabled. The word NUM appears in the status bar when the Num Lock key is enabled.

Each selected object moves to the selected position within the safe title area. However, note the following behaviors:

- If an object is extruded (see "Extruding Objects" on page 492), the object's front face determines how to position the object.
- If an object is rotated, the object is positioned based on the front face of the object.
- If the title uses perspective projection (see "Changing the Perspective Distortion of Objects" on page 303), objects might appear positioned incorrectly. This is a side effect of perspective projection. Switching to orthographic projection shows correct positioning of objects.
- If an object's position in the Z axis is not zero, the object might not be positioned properly.
- If the object is within a page of a deck, the safe title area is ignored.

Snapping Objects to a Grid

When the grid is displayed, you can locate objects at specific points in the scene by dragging them to grid points. The corners of the object's bounding box snap to the nearest grid points. You can also use the grid to scale an object, such as a deck, to the bounds of the frame.

To snap objects to the grid:

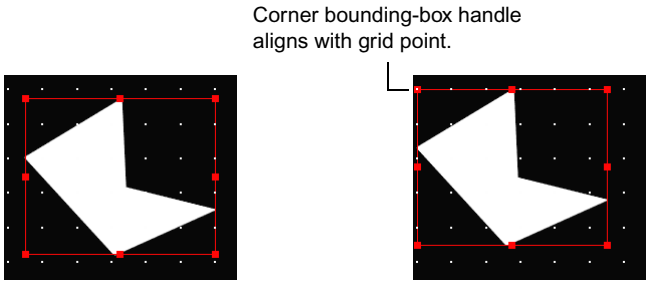
1. Select the objects you want to align.

   For more information on selecting multiple objects, see "Selecting and Deselecting Objects" on page 280.

2. Drag one of the selected objects toward a grid point.

   For information on displaying the grid, see "Showing the Grid" on page 271.

   The nearest corner of the object you drag snaps to the nearest grid point.



Snapping has the same limitations as object positioning (described in "Positioning Objects at Specific Locations" on page 286).

Aligning Objects Relative to Each Other

You can align the edges or centers of multiple objects relative to each other to ensure a consistent layout in a scene. You can align objects to their bounding box edges or centers. Objects will align to the safe title guide if it is displayed.

To align objects relative to another object:

1. Select the objects you want to align.

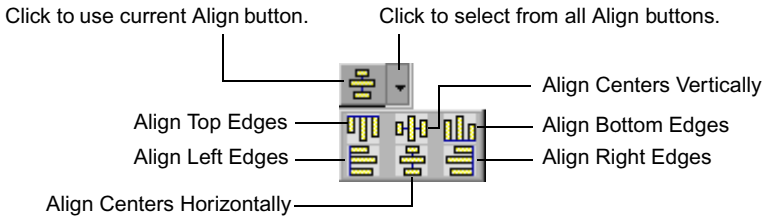
   For more information on selecting multiple objects, see "Selecting and Deselecting Objects" on page 280.

2. Press and hold the Shift key, and then select the object to which all other selected objects will be aligned. This is the reference object, as its bounding box handles are solid instead of hollow.

   If you select only one object, the reference object is the object's container.

If you drag a selection box or select Edit > Select All in Container to select the objects, the reference object is the frontmost object (the object whose track is at the top of the Timeline window).

3. Click the Scene View button or one of the other Views buttons in the toolbar to make sure you are not viewing the scene or layer at an arbitrary angle.
4. Do one of the following:
   - To use the current object alignment, click the Align button.
   - To select a different object alignment, click the arrow next to the Align button, and then select a different Align button.



The selected objects align themselves relative to the reference object. Object alignment has the same limitations as object positioning (described in "Positioning Objects at Specific Locations" on page 286).

Distributing Objects

You can distribute objects so that they are evenly spaced relative to one another or so that they are evenly spaced within their container object. You can distribute objects so that the gaps between the objects are the same. You can also distribute objects so that the spaces between the bounding box edges or the centers of the objects are the same.

Objects are distributed differently, depending on which layer view you are using. If you are viewing from the side (Layer Left or Layer Right view) objects are distributed along the Y or Z axis. If you are viewing from the top (Layer Top view), objects are distributed along the X or Z axis. If you are viewing from the front (Layer Front view or Scene view), objects are distributed along the X or Y axis.

To distribute objects:

1. Select the objects you want to distribute.

   For more information on selecting multiple objects, see "Selecting and Deselecting Objects" on page 280.

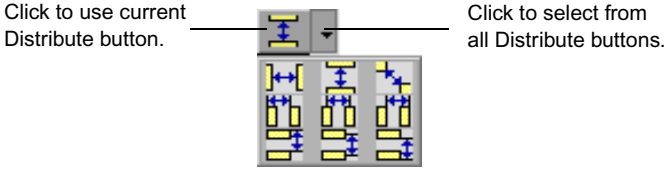
   You must select at least two objects for the distribute commands to have any effect within the context of a container object. You must select at least three objects for the distribute commands to have any effect on objects relative to one another.

   If you are distributing objects diagonally, you must select the objects in the order in which you want them to appear after distribution (from first to last).

2. Click the Scene View button or one of the other Views buttons in the toolbar to make sure you are not viewing the scene or layer at an arbitrary angle and to control the axis along which the distribution takes place.

3. Do one of the following:

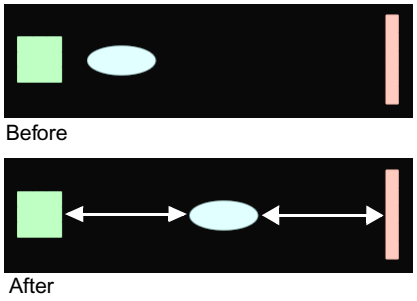
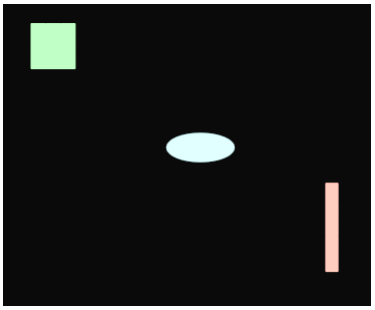
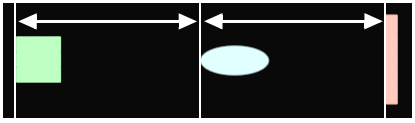
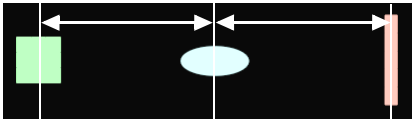
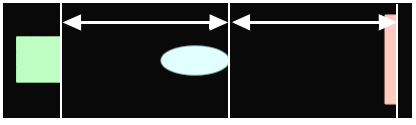
   - To distribute the selected objects with respect to one another, click the Distribute button (to use the current Distribution method) or click the arrow next to the Distribute button and then select a different Distribute button.
   - To distribute the selected objects within the context of their container (layer, page, or group), press and hold the Ctrl key, and then click the Distribute button (to use the current Distribution method) or click the arrow next to the Distribute button and select a different Distribute button.



   For information about the Distribute button options, see the following table.

Object distribution has the same limitations as object positioning (described in "Positioning Objects at Specific Locations" on page 286).

Distribute Buttons

Button	Description	Example
Distribute Horizontally with Even Gaps	Distributes the selected objects so that the horizontal gaps between them are equal.	 Before / After
Distribute Vertically with Even Gaps	Distributes the selected objects so that the vertical gaps between them are equal.	
Distribute Diagonally from First to Last	Distributes the selected objects so that they lie on a diagonal between the first and last selected objects and so that the gaps between them are equal.	
Distribute Horizontally by Left Edge	Distributes the selected objects so that the distances between their left edges are equal.	
Distribute Horizontally by Midpoint	Distributes the selected objects so that the horizontal distances between their centers are equal.	
Distribute Horizontally by Right Edge	Distributes the selected objects so that the distances between their right edges are equal.	

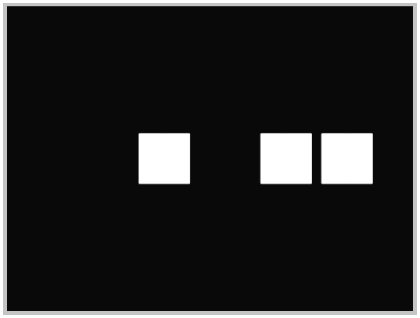
Distribute Buttons (Continued)

Button	Description	Example
Distribute Vertically by Left Edge	Distributes the selected objects so that the distances between their top edges are equal.	
Distribute Vertically by Midpoint	Distributes the selected objects so that the vertical distances between their centers are equal.	
Distribute Vertically by Right Edge	Distributes the selected objects so that the distances between their bottom edges are equal.	

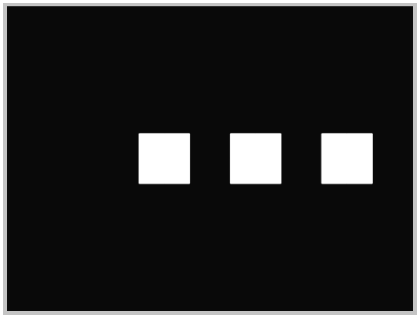
Understanding Distribution Within a Container

When you use the Ctrl key modifier to distribute objects within their container, Marquee creates spaces between the outside objects and the appropriate edges of the container that are equal to the spaces between the objects themselves. If the safe title guide is displayed, objects in a layer are distributed relative to the appropriate edges of the safe title guide.

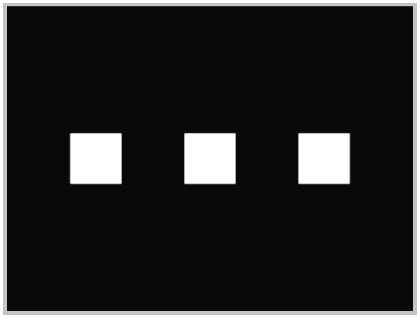
The following illustrations show the different results when distributing three objects relative to one another and relative to their container (in this case, their layer, which is the size of the scene).



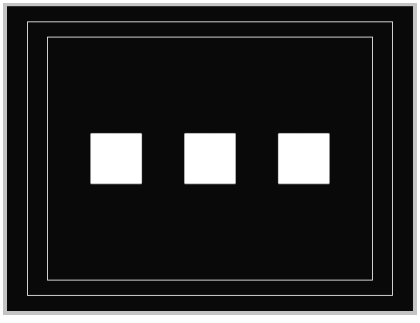
Before Distribution



After Distribution without considering the context of the container. The gaps between the objects are equal but they remain on one side of their containing layer.



After Distribution within the context of the container. The gaps between objects and between objects and the edges of the containing layer are equal.



After Distribution within the context of the container and with the safe title guide displayed.

Grouping and Ungrouping Objects

If you want to scale or rotate several objects as if they were part of a larger object, group the objects together.

To group objects together:

1. Select the objects you want to group.

   For more information on selecting multiple objects, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - Select Object > Group.
   - Click the Group button in the toolbar.

The grouped objects appear with a single bounding box.

To select an object within a group:

- Alt+click (Windows) or Option+click (Macintosh) the object.

  You can then modify the selected object without having to ungroup the group of objects.

To ungroup grouped objects:

1. Select the group.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - Select Object > Ungroup.
   - Click the Ungroup button in the toolbar.

If you group an animated collection of objects, animate the group, and then ungroup the objects, some parts of the animation might be lost.

Showing and Hiding Objects

By showing or hiding objects, you can isolate the effect of certain objects or focus your work on specific parts of the scene.

To hide a single object:

- Click the Mute icon for the object's track in the Timeline or Layers window.

To show a single object and hide all others:

- Click the Solo icon for the object's track in the Timeline or Layers window. You can solo multiple objects.

To show all hidden objects:

- Select Object > Unhide All.

Changing the Visibility of Objects

You can control the opacity of each object in a scene from fully transparent to fully opaque. By controlling opacity, you can blend or mix objects in a scene to produce subtle effects, such as having objects fade in and out over time. You can also control whether to display an object.

An object that is invisible requires no rendering time, whereas an object whose opacity is zero does.

To change the opacity of an object:

1. Select the object whose opacity you want to change.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. In the Surfaces Properties window or in the Quick Titles Properties window, adjust the "Master opacity" value.

Unlike the opacity settings for each material on an object, "Master opacity" controls the appearance of the entire object, including its shadow (if one exists).

To control the visibility of an object:

1. Select the object.

   If the object is currently hidden, select it in the Timeline window or in the Layers window. For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. In the Render Properties window, select the "Show object" option to show the object or deselect the option to hide the object.

Modifying Objects

You can resize (scale) and rotate objects. These operations occur relative to an anchor point, a location on the selected object from which the operation is based.

If you scale or rotate multiple objects, each object is modified independently. To modify a collection of objects as a single entity, group them first. For more information on grouping objects, see "Grouping and Ungrouping Objects" on page 294.

For graphics objects, you can also deform the object (described in "Editing Shapes and Paths" on page 367).

Scaling Objects

Although you can draw an object at a specific size, you can still make the object larger or smaller by scaling it. You can scale an object directly in the Monitor window, or you can enter numeric values in the Transform Properties window.

If the object you want to scale is a simple object without subobjects (for example, a graphics object), you scale it directly in the Monitor window by dragging one of its bounding-box handles. If the object you want to scale is a container object (a text object, a deck, or a group you have created from several objects), you scale it directly in the Monitor window by pressing the Alt key (Windows) or Option key (Macintosh) and dragging one of its bounding-box handles.

When you scale in the Monitor window, the scaling can be either independent of or constrained to the object's original aspect ratio and can be either relative to the opposite bounding-box handle or relative to the object's anchor point.

When you scale by entering numeric values in the Transform Properties window, the scaling cannot be constrained to the object's aspect ratio and is always relative to the object's anchor point.

For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

To scale a selected object horizontally only:

- Drag either the left or right bounding-box handle on the object.
- If the object is a container object, Alt+drag (Windows) or Option+drag (Macintosh) the left or right bounding-box handle on the object.

To scale a selected object vertically only:

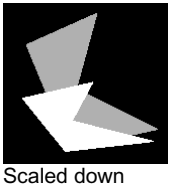
- Drag either the top or bottom bounding-box handle on the object.
- If the object is a container object, Alt+drag (Windows) or Option+drag (Macintosh) the top or bottom bounding-box handle on the object.

To scale a selected object horizontally and vertically:

- Drag a corner bounding-box handle on the object.
- If the object is a container object, Alt+drag (Windows) or Option+drag (Macintosh) a corner bounding-box handle on the object.


Original object

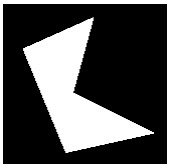

Scaled down horizontally (unconstrained)

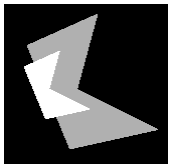

Scaled down vertically (unconstrained)

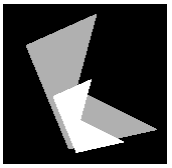

Scaled down horizontally and vertically (unconstrained)

To scale a selected object constrained to the object's aspect (for example, preserving a square object's equal-length sides):

- Shift+drag one of the bounding-box handles on the object.
- If the object is a container object, Shift+Alt+drag (Windows) or Shift+Option+drag (Macintosh) one of the bounding-box handles on the object.


Original object


Scaled down horizontally (constrained)


Scaled down vertically (constrained)


Scaled down horizontally and vertically (constrained)

To scale a selected object relative to its anchor point:

- Ctrl+drag (Windows) or ⌘+drag (Macintosh) one of the bounding-box handles on the object.
- If the object is a container object, Ctrl+Alt+drag (Windows) or ⌘+Option+drag (Macintosh) one of the bounding-box handles on the object.

For information on adjusting an object's anchor point, see "Adjusting Anchor Points" on page 302.

To scale a selected object relative to its anchor point and constrained to its aspect:

- Shift+Ctrl+drag (Windows) or Shift+⌘+drag (Macintosh) one of the bounding-box handles on the object.
- If the object is a container object, Shift+Ctrl+Alt+drag (Windows) or Shift+⌘+Option+drag (Macintosh) one of the bounding-box handles on the object.

To scale a selected object by entering numeric values:

- In the Transform Properties window, under Scale, adjust the X, Y, and Z values.

Resizing Container Objects

Container objects (text boxes, pages, and groups) have width and height dimensions. Groups also have a depth dimension. You can resize a container to any dimensions or to fit exactly around its contents' bounding boxes. Unlike scaling a container (which scales the contents), resizing a container does not affect the size of its contents.

To resize a container object:

1. Select the container object you want to resize.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

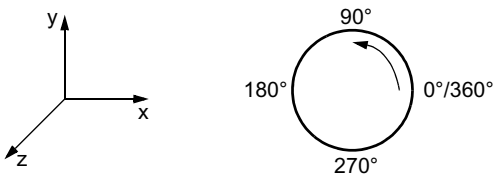
   - Drag one of the container's bounding-box handles.
   - In the Info Properties window, adjust the Width, Height, and Depth values.

   The container changes size, but its contents do not.

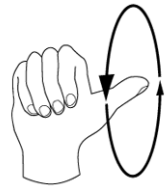
Understanding Rotation

You rotate objects using the Rotate tool. Rotation occurs in three-dimensional space around the X, Y, and Z axes.

Angles of rotation increase in the counterclockwise direction around an axis and decrease in the clockwise direction.

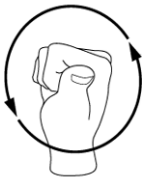


To easily remember which direction is positive rotation, use the *right-hand rule*. Wrap your right hand around the positive end of one of the axes, with your thumb pointing away from the origin of the axis. Your other fingers will curl in the direction of positive rotation around the axis.



Positive X rotation

Positive Y rotation

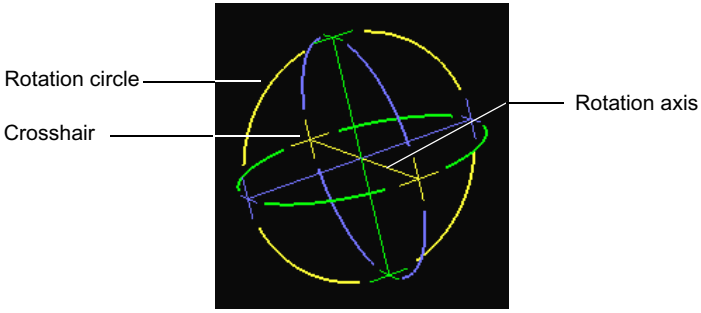


Positive Z rotation

Rotation adjustments are applied to objects in the following order: X, Y, and then Z.

If you intend to animate an object rotating over time, complex rotations that use multiple axes might produce unexpected results between keyframes. However, for simple rotations that use a single axis, the results are as expected. For more information on animating object properties, see the chapter .

When you select the Rotate tool, a rotation sphere appears around the selected object. The rotation sphere consists of three color-coded rotation circles and three matching axes with crosshairs at either end. To rotate the object around one of the axes, drag the circle that has the same color as the axis. Use the crosshairs to adjust the anchor point around which the rotation takes place.



Rotating Objects

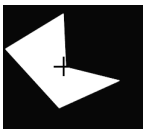
To rotate an object:

1. Click the Rotate tool, and then click the object you want to rotate.

   A rotation sphere appears around the object. You use the controls on this sphere to adjust the anchor point and to rotate the object.

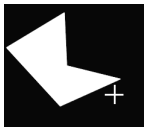
2. Adjust the anchor point.

   For more information, see "Adjusting Anchor Points" on page 302.

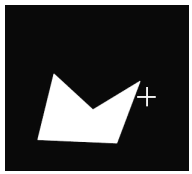


Rotation anchor point at default location (center of bounding box)

Object rotated 45 degrees



Rotation anchor point moved off center



Object rotated 45 degrees

3. Rotate the object in one of the following ways:

   - To rotate around a single axis, drag the rotation circle that is the same color as the axis.
   - To constrain rotations to 15-degree increments around a single axis, Shift+drag the rotation circle that is the same color as the axis.
   - To rotate by entering degree values, in the Transform Properties window, under Rotation, adjust the X, Y, and Z values.

   For more detailed information on using the rotation sphere and on degree measurement, see "Understanding Rotation" on page 299.

To reset the rotation of an object using the Rotate shortcut menu:

1. Click the Rotate tool, and then click the object whose rotation you want to reset.
2. Right-click (Windows) or Ctrl+click (Macintosh) the object, and select Reset Rotation.

To reset the rotation of an object using the Rotation property controls:

1. Click either the Edit tool or the Rotate tool, and then click the object whose rotation you want to reset.

2. In the Transform Properties window, under Rotation, click the Reset button for the X, Y, or Z control.

Adjusting Anchor Points

When you scale or rotate objects, the objects change based on a point in three-dimensional space known as the anchor point. Scaling and rotation operations use the same anchor point. The default location for an object's anchor point is the center of its bounding box.

To adjust the anchor point by dragging:

1. Click the Rotate tool, and then click the object whose anchor point you want to adjust.
2. Drag the small crosshairs at the ends of the axes on the rotation sphere to the intended location.

   The anchor point moves along the plane of the crosshair.

To adjust the anchor point using the Anchor Point property controls:

1. Click either the Edit tool or the Rotate tool, and then click the object whose anchor point you want to adjust.
2. In the Transform Properties window, under Anchor Point, adjust the X, Y, and Z values.

You can adjust the Z value of the anchor point only if the object is extruded.

To reset the anchor point using the Rotate shortcut menu:

1. Click the Rotate tool, and then click the object whose anchor point you want to reset.
2. Right-click (Windows) or Ctrl+click (Macintosh) the object, and select Reset Anchor Point.

To reset the anchor point using the Anchor Point property controls:

1. Click either the Edit tool or the Rotate tool, and then click the object whose anchor point you want to reset.
2. In the Transform Properties window, under Anchor Point, click the Reset button for the X, Y, or Z control.

Changing the Perspective Distortion of Objects

When you rotate an object around the X or Y axis or move the object away from the center of the scene, you can control the amount of distortion applied to the object. The distortion simulates the real-world appearance of a rotated or far-away object, where points on the object farther away look smaller than points closer to you.

To control the amount of distortion:

1. Select File > Preferences > Current Title (Windows) or Marquee > Preferences > Current Title (Macintosh).

   The Title Preferences dialog box appears.

2. Click the Projection tab.
3. Under Projection, do one of the following:
   - To use no distortion, select Orthographic.
   - To use distortion, select Perspective.
4. If you selected Perspective projection, adjust the Vertical Field of View value.

   Higher values produce exaggerated distortions, whereas lower values produce subtle distortions.

Example text box rotated 60 degrees around the Y axis

Orthographic

Perspective
(Vertical Field of View = 15)

Perspective
(Vertical Field of View = 50)

Perspective
(Vertical Field of View = 90)

5. Click OK.

Undoing and Redoing Operations

You can undo and redo up to 100 editing operations you perform in a title. The types of operations you perform limit the number of operations you can undo and redo.

To undo the last operation, do one of the following:

- Select Edit > Undo *action* (where *action* is the name of the last operation that you can undo).
- Press Ctrl+Z (Windows) or ⌘+Z (Macintosh).

To redo the last undone operation, do one of the following:

- Select Edit > Redo *action*.
- Press Ctrl+Shift+Z (Windows) or ⌘+Shift+Z (Macintosh) or Ctrl+R (Windows) or ⌘+R (Macintosh).

To cancel an operation in progress, do one of the following:

- Press the Esc key.
- (Windows only) Click the right mouse button.

Identifying Objects

Each object has a name and optional comment you can assign to it. The tracks in the Timeline window and the entries in the Layers window display these object names.

You can use unique names to differentiate similar objects in a scene and to make their function clearer. For example, you might name a light source “BlueSpot.” You can use comments to remind you of information about an object, such as its purpose in the scene.

The name of a text object does not correspond to the text you see in the title.

Appropriate naming of objects is important when you are working with the AutoTitler script. For more information, see “Using the AutoTitler” on page 544.

To change the name of an object:

1. Select the object whose name you want to change.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - In the Info Properties window, type a new name in the Name text box.
   - In the Layers window, click the name of the object to select it for editing, and then type a different name.

To add a comment to an object:

1. Select the object to which you want to add a comment.

   For more information on selecting an object, see "Selecting and Deselecting Objects" on page 280.

2. In the Info Properties window, type a description in the Comment text box.

Properties Windows and Their Controls

The Properties windows display the properties of the selected objects at the current time in the title.

Think of these windows as showing a "snapshot" of the selected objects' properties. When you are creating and modifying title objects, you make many of your adjustments using controls in the Properties windows.

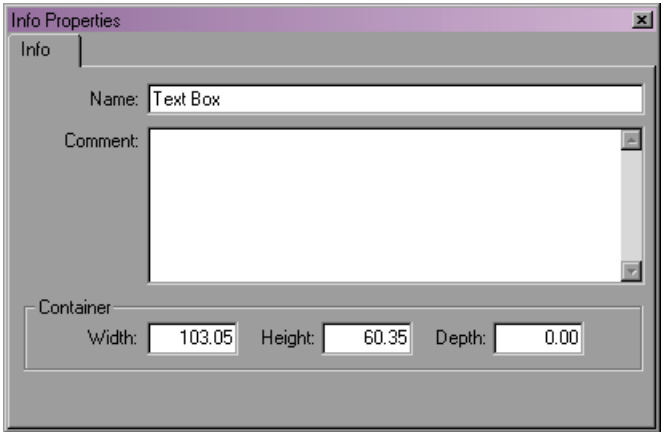
For container objects, such as text and deck objects, remember that objects within the container inherit properties from the container. When you change a property of the container, you change the same property on all objects within the container. For example, if you select a text object and change its font, all the characters within the text object change to the same font.

For general information on using the Properties windows and their controls, see the following sections in the chapter "Marquee Basics" on page 167:

- "Properties Windows" on page 194
- "Controlling Window Display" on page 197
- "Using Common Marquee Property Controls" on page 203

The following sections describe all the properties within each Properties window and tell you where to find more information about the use of each property.

Info



Info properties define general information about the object. The following table describes the Info properties.

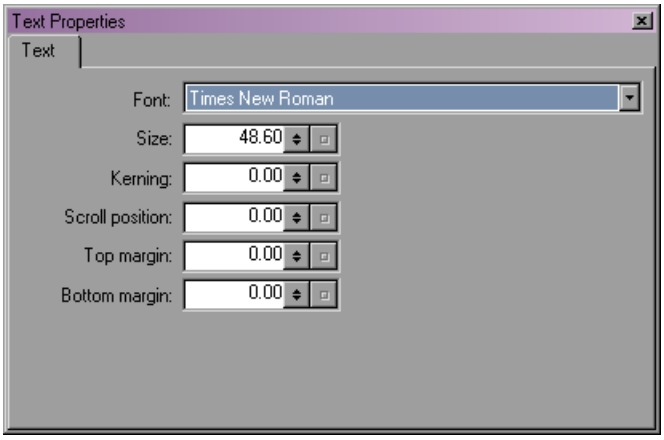
Info Properties

Property	Description	Default Value	For More Information
Name	The name of the object (except for pages). By default, a generic name is assigned to the object. Use this name to identify similar types of objects in the Timeline window or to reference objects within templates.	Object's type	See "Identifying Objects" on page 304.
Comment	A user-defined description for the object. Add a comment to an object to help remind yourself about the purpose or any other type of information about the object.	Blank	See "Identifying Objects" on page 304.

Info Properties (Continued)

Property	Description	Default Value	For More Information
(Container) Width	(Container objects only) The container's width, in the current unit of measure.	None Default unit of measurement is points.	See "Resizing Container Objects" on page 299.
(Container) Height	(Container objects only) The container's height, in the current unit of measure.	None Default unit of measurement is points.	See "Resizing Container Objects" on page 299.
(Container) Depth	(Container objects only) The container's depth, in the current unit of measure.	None Default unit of measurement is points.	See "Resizing Container Objects" on page 299.

Text

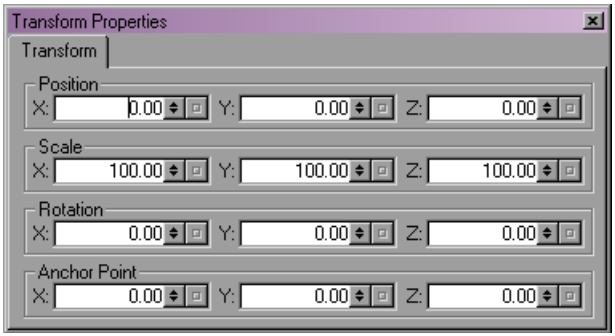


Text properties define the attributes of text objects, including text along a path. The following table describes the Text properties.

Text Properties

Property	Description	Default Value	For More Information
Font	The font family name (for example, Times Roman, Helvetica, Courier).	Times New Roman	See "Changing Fonts and Font Sizes" on page 336.
Size	The font size, in the current unit of measure.	10 percent of scene height Default unit of measurement is points, for example, 48.6 points for an NTSC title.	See "Changing Fonts and Font Sizes" on page 336.
Kerning	Amount of horizontal space between characters. The space appears after each character.	0 percent of the current font size	See "Adjusting Kerning" on page 338.
Scroll position	For rolling or crawling text, the position of the rolling or crawling text within the container. For path text, the position of the text along the path. This property does not apply to static text objects.  *Do not adjust the "Scroll position" property value if you want to save a rolling or crawling title to a bin as an Avid Rolling Title or Crawling Title. For more information, see "Avid Editing Application Title Types Created from Marquee Titles" on page 222.*	Linear ramp from 0 to 100	See "Controlling Scrolling Speed and Direction" on page 355.
Top margin	Amount of vertical space along the top of the text box, which is also the space above the first line in the text box.	0 percent	See "Adjusting the Text Margins" on page 349.
Bottom margin	Amount of vertical space along the bottom of the text box.	0 percent	See "Adjusting the Text Margins" on page 349.

Transform

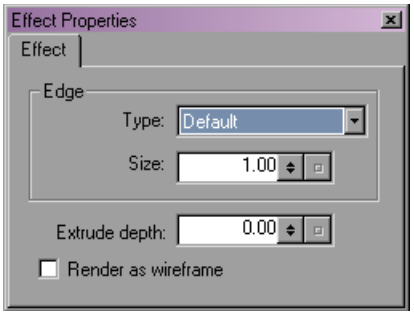


Transform properties define object transformations, such as position, scaling, and rotation adjustments. The following table describes the Transform properties.

Transform Properties

Property	Description	Default Value	For More Information
Position	Offset of the object in three-dimensional space, relative to the center and based on the current unit of measure. Objects in a scene that are too close or too far away are not drawn. To simulate very large or very small objects, use the Scale controls.	0/0/0 Default unit of measurement is points.	See "Moving Objects Within the Scene" on page 282.
Scale	Scale percentage, relative to the object's original size. Scaling occurs relative to the object's anchor point, unlike scaling an object manually in the Monitor window.	100/100/100 percent	See "Scaling Objects" on page 296.
Rotation	Angle of rotation in three-dimensional space, relative to the object's original orientation.	0/0/0 degrees	See "Rotating Objects" on page 300.
Anchor Point	Offset from the center of the object's bounding box, from which to scale or rotate the object.	0/0/0 Default unit of measurement is points.	See "Rotating Objects" on page 300.

Effect

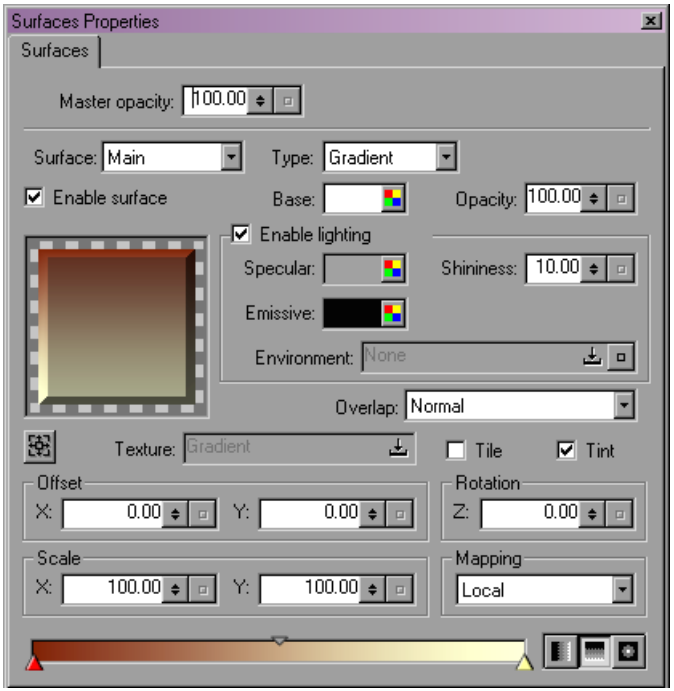


Effect properties define visual effects you can apply to each object. The following table describes the Effect properties.

Effect Properties

Property	Description	Default Value	For More Information
Edge Type	The appearance of the object's Edge surface.	Default (none)	See "Creating Edge Effects" on page 487.
Edge Size	The thickness of the Edge surface (border).	1	See "Creating Edge Effects" on page 487.
Extrude depth	The thickness of the extruded object.	0 percent	See "Extruding Objects" on page 492.
Render as wireframe	Controls whether to draw the object as an outline instead of a solid. The appearance of the wire-frame outline is the same as the object's Main material.	Off	See "Drawing Objects as Wire Frames" on page 494.

Surfaces



Surfaces properties define the appearance of an object's surfaces and its background (for container objects). The following table describes the Surfaces properties.

The Surfaces Properties window requires OpenGL video support to display correctly. If you are using a two-monitor system, your second monitor might not be able to display the Surfaces Properties window correctly, so you should not move the Surfaces Properties window onto the second monitor. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

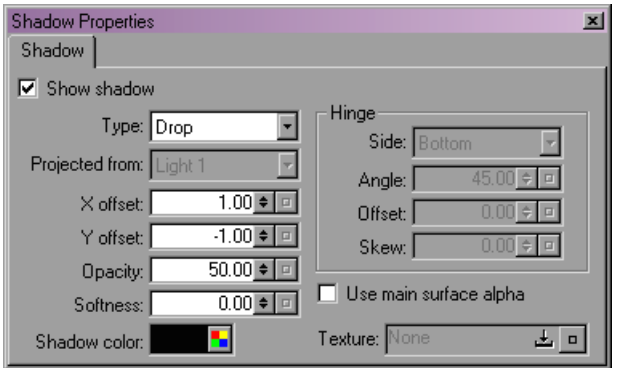
Surfaces Properties

Property	Description	Default Value	For More Information
Master opacity	The overall control of an object's visibility, used to fade an object in or out	100 percent	See "Changing the Visibility of Objects" on page 295.
Surface	The surface of the object to modify. *This is not a true property but only a means to select the surface to which you are currently applying property values.*	Main	See "Applying Materials to Objects" on page 454.
Enable surface	Controls whether the surface uses material properties different from the Main surface of the object	On (Main); Off (Edge, Extrude, Background)	See "Using Custom Materials for Object Surfaces" on page 459.
Type	The type of material on the surface	Solid Color	See "Changing the Type of Material" on page 459.
Base	The base color of the surface's material	White	See "Changing the Base Color of Materials" on page 461.
Opacity	The opacity of the surface's material	100 percent	See "Changing the Opacity of Materials" on page 461.
Enable lighting	Controls whether the surface's material is affected by light sources	Off	See "Allowing Materials to Be Affected by Light Sources" on page 463.
Shininess	(Lit materials only) Controls how shiny or dull the surface's material appears	10 percent	See "Adjusting the Shininess of Materials" on page 465.
Specular	(Lit materials only) The color of the surface's material at the points closest to a light source	Gray	See "Adjusting the Specular Highlight Color" on page 463.
Emissive	(Lit materials only) The color of the surface's material at the points farthest from a light source	Black	See "Adjusting the Emissive Color" on page 464.

Surfaces Properties (Continued)

Property	Description	Default Value	For More Information
Environment	(Lit materials only) A texture from the Textures Library window, which is reflected in the surface's specular highlights	None	See "Simulating Reflective Surfaces Using Environment Maps" on page 465.
Overlap	The effect to apply to the area of the surface that overlaps other object surfaces	Normal	See "Controlling the Appearance of Overlapping Surfaces" on page 466.
Tile	Controls whether a scaled-down texture is tiled or repeated on the surface	Off	See "Positioning and Tiling Textures on Surfaces" on page 479.
Tint	Controls whether the material's texture is tinted by the Base color	On	See "Tinting Textures" on page 483.
Texture	Displays the file name of the texture image mapped onto the surface	Default (None)	See "Working with Textured Materials" on page 476.
Offset	The offset of the texture relative to its original position on a surface	0/0 percent	See "Positioning and Tiling Textures on Surfaces" on page 479.
Rotation	The angle of rotation of the texture on its surface	0 degrees	See "Rotating Textures on Surfaces" on page 481.
Scale	The scale factor of the texture on the surface	100/100 percent	See "Scaling Textures on Surfaces" on page 480.
Mapping	The method of applying the texture to the surface	Local	See "Controlling How Textures Are Mapped onto Surfaces" on page 482.
Gradient	(Gradient materials only) The appearance of the gradient	Black to White, Horizontal	See "Editing Gradient Materials" on page 470.

Shadow



Shadow properties define the appearance and location of an object's shadow. The following table describes the Shadow properties.

Shadow Properties

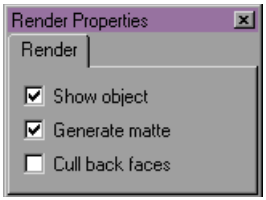
Property	Description	Default Value	For More Information
Show shadow	Controls the visibility of the object's shadow.	Off	See "Showing and Hiding Shadows" on page 510.
Type	The type of shadow to use.	Drop	See "Showing and Hiding Shadows" on page 510.
Projected from	For projected shadows, the light source that produces the projected shadow.	Light 1	See "Changing the Location of Shadows" on page 512.
X offset	Horizontal position of the shadow, relative to the object, as a percentage of the scene's height. Positive values place the shadow to the right of the object; negative values place the shadow to the left of the object.	1	See "Changing the Location of Shadows" on page 512.

Although the X offset property can be thought of as a distance measurement, you cannot change the unit of measurement to points or pixels.

Shadow Properties (Continued)

Property	Description	Default Value	For More Information
Y offset	Vertical position of the shadow, relative to the object, as a percentage of the scene's height. Positive values place the shadow above the object; negative values place the shadow below the object.	–1	See "Changing the Location of Shadows" on page 512.
	Although the Y offset property can be thought of as a distance measurement, you cannot change the unit of measurement to points or pixels.		
Opacity	The amount of blending the shadow has with objects behind it.	50 percent	See "Changing the Appearance of Shadows" on page 515.
Softness	The softness of the shadow's edges.	0 percent	See "Changing the Appearance of Shadows" on page 515.
Shadow color	The shadow's color or tint (if using a texture).	Black	See "Changing the Appearance of Shadows" on page 515.
Hinge	The location and orientation of the shadow plane.	Side = Bottom Angle = 45 Offset = 0 Skew = 0	See "Changing the Location of Shadows" on page 512.
Use main surface alpha	Determines whether the alpha channel information from the Main surface controls the shape of the shadow. This is particularly useful when the Main surface uses an imported graphics texture.	Off	See "Applying Shadows to Imported Images" on page 521.
Texture	An image or animation file on disk to use instead of a solid color.	None	See "Changing the Appearance of Shadows" on page 515.

Render

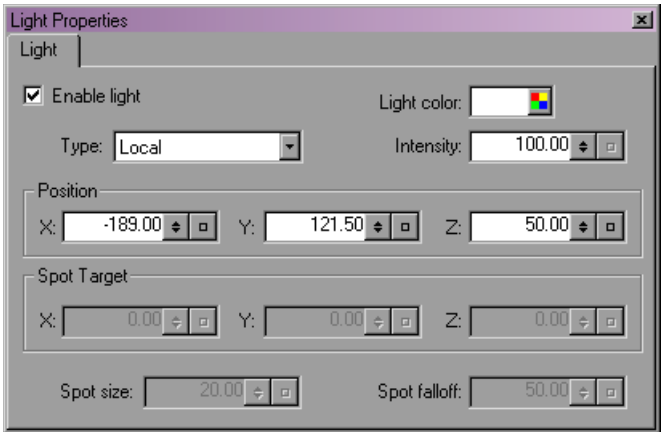


Render properties define if and how to process the object in the scene. The following table describes the Render properties.

Render Properties

Property	Description	Default Value	For More Information
Show object	Controls whether the object is visible.	On	See "Changing the Visibility of Objects" on page 295.
Generate matte	Controls whether the object participates in the creation of the matte for the current frame.	On	See "Changing the Opacity of Materials" on page 461.
Cull back faces	Controls whether to draw the back side (surface) of an object. If the back side is not drawn, the object is transparent when the back faces are visible.	Off	See "Controlling the Drawing of Back Faces" on page 456.

Light



Light properties define the type, color, intensity, and location of a light source. The following table describes the Light properties.

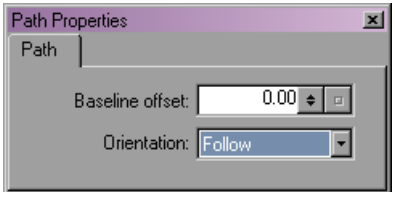
Light Properties

Property	Description	Default Value	For More Information
Enable light	Turns a light source on (selected) or off (deselected). Enabled light sources are drawn using solid lines, whereas disabled light sources are drawn using dashed lines.	On	See "Enabling and Disabling Light Sources" on page 502.
Type	Sets the type of light source. The available options are Infinite, Local, and Spot.	Local	See "Changing Light Types" on page 503.
Light color	Sets the color of the light emitted from the light source.	White	See "Using Colored Lights" on page 503.
Intensity	Controls the brightness of the light source, from 0 (no intensity) to 100 (normal intensity) and higher. Intensity can also be less than 0 to produce a "black light" effect on surfaces whose emissive color is not black.	100	See "Changing the Intensity of Light Sources" on page 504.

Light Properties (Continued)

Property	Description	Default Value	For More Information
Position	Sets the location of the light source in the scene. You can use the Position properties in the Transform Properties window to control the position of light sources.	0/0/0 Default unit of measurement is points.	See "Positioning Light Sources in the Scene" on page 505.
Spot Target	(Spot lights only) Sets the location in the scene that the spot light points to.	0/0/0 Default unit of measurement is points.	See "Adjusting Spot Light Properties" on page 506.
Spot size	(Spot lights only) Controls the area defined by the cone of light. Spot size is expressed as an angle, where 0 degrees is a zero-width cone or no light and 90 degrees is a very wide cone.	20 degrees	See "Adjusting Spot Light Properties" on page 506.
Spot falloff	(Spot lights only) Controls the softness of the light at its perimeter, which in turn can affect the apparent intensity of the light. Spot falloff is expressed as a value from 0 (least soft, high apparent intensity) to 100 (most soft, low apparent intensity).	50	See "Adjusting Spot Light Properties" on page 506.

Path

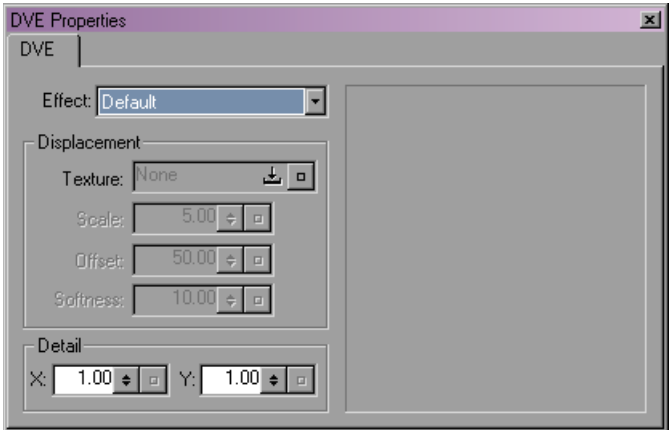


Path properties define the behavior and appearance of text on a path. The following table describes the Path properties.

Path Properties

Property	Description	Default Value	For More Information
Baseline offset	The offset of the characters of text, measured from their baseline, from the path	0 percent	See "Positioning Text on Paths" on page 444.
Orientation	The direction of the characters of text on the path	Follow	See "Orienting Text on Paths" on page 446.

DVE



DVE properties define the behavior and appearance of DVE objects. The following table describes the DVE properties.

DVE Properties

Property	Description	Default Value	For More Information
Effect	The type of DVE to use	Default (None)	See "Creating and Deleting DVEs" on page 380.

DVE Properties (Continued)

Property	Description	Default Value	For More Information
Effect-specific properties (Border, Page Curl, Ripple, Sphere)	The properties for the selected DVE	Border: Size = 0 Softness = 0 Color = Black Page Curl: Radius = 0.10 Angle = 0 Curl time = 0 to 1 Ripple: Amplitude = 0.10 Angle = 0 Ripple time = 0 Frequency = 1 Sphere: Angle = 360 Distortion = 1	See "Adjusting DVE-Specific Properties" on page 384.
Displacement	Controls the use of a displacement map to simulate a nonsmooth surface	None; Scale = 5 Offset = 50 Softness = 10	See "Simulating Textured Surfaces Using Displacement Maps" on page 382.
Detail	The level of detail for the DVE	X = 1 Y = 1	See "Controlling the Detail of DVEs" on page 383.

Quick Titles

Properties in the Quick Titles Properties window duplicate properties that are also found in other Properties windows or in the Monitor window. The following table provides a listing of the properties in the Quick Titles Properties window and their equivalents in other locations.

For more information on the Quick Titles Properties window, see "Properties Windows" on page 194 and the chapter "Creating Basic Titles for Your Avid Editing Application" on page 135.

The Quick Titles Properties window requires OpenGL video support to display correctly. If you are using a two-monitor system, your second monitor might not be able to display the Quick Titles Properties window correctly, so you should not move the Quick Titles Properties window onto the second monitor. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

Quick Titles Properties and Their Equivalents

Property	Equivalent
Master opacity	Master opacity in Surfaces Properties window.
Enable main surface (Main Surface area)	Combination of selecting Main from the Surface list and selecting "Enable surface" in the Surfaces Properties window.
Base color well (Main Surface and Edge areas)	Base color well in Surfaces Properties window.
Opacity (Main Surface, Shadow, and Edge areas)	Opacity in Surfaces Properties window or in Shadow Properties window, as appropriate.
Enable lighting (Main Surface and Edge areas)	Enable lighting in Surfaces Properties window.
Enable gradient (Main Surface and Edge areas)	Gradient in Type list in Surfaces Properties window.
Gradient controls: gradient bar and gradient type buttons (Main Surface and Edge areas)	Gradient controls in Surfaces Properties window.
Tint (Main Surface and Edge areas)	Tint in Surfaces Properties window.
Rotate (Main Surface and Edge areas)	Rotation in Surfaces Properties window.
Mapping (Main Surface and Edge areas)	Mapping in Surfaces Properties window.
Show drop shadow	Combination of selecting "Show shadow" and setting Type to Drop in the Shadow Properties window.
Shadow tool	X offset and Y offset in Shadow Properties window.

Quick Titles Properties and Their Equivalents (Continued)

Property	Equivalent
Shadow color well	Shadow color well in Shadow Properties window.
X offset	X offset in Shadow Properties window.
Y offset	Y offset in Shadow Properties window.
Softness	Softness in Shadow Properties window.
Change edge properties	Combination of selecting Edge from the Surface list and selecting “Enable surface” in the Surfaces Properties window.
Edge type	Edge Type in Effect Properties window. Choosing an Edge type in the Quick Titles Properties window also enables the Edge surface in the Surfaces Properties window.
Size	Edge Size in Effect Properties window.

Chapter 8
Working with Text

This chapter describes how you enter text and adjust text attributes.

This chapter covers the following topics:

Understanding Text

A text object is a container for characters. A text object appears in the scene as a text box. The following types of text objects are available:

- Static text
- Rolling text
- Crawling text
- Path text

Each type of text can be static (no motion within the container) or have motion (moves within the container) over time. You can also control whether the text moves outside the dimensions of the container.

This section gives an overview of these types of text objects.

Structure of Text

A text object can contain the following:

- *Characters* — Letters, digits, and symbols you type on a keyboard
- *Words* — Sequences of characters usually separated by a space or punctuation
- *Columns* — Blocks of characters or words that share the same text alignment
- *Paragraphs* — Sequences of words, possibly spanning multiple lines, that you separate from one another by pressing Shift+Enter

Most operations you perform on text in a text object work on blocks of text, which includes characters, words, columns, and paragraphs. However, some operations work only on columns of text, such as text alignment (as described in "Aligning Text into Columns" on page 343).

Static Text

Static text does not move (scroll) within its text box. The text can still move around if you manually move each character or if you animate the entire text box. Static text is the default text object.

Rolling Text

Rolling text moves vertically within a text object over the duration of the text object, starting and ending with no text visible. An example of rolling text is the list of credits you see at the end of television movies and feature films. You can create rolling text that moves up and down within a text box. If you enter more text than can fit on one line, extra words and characters appear on a new line. The lines of text word wrap.

For more information on rolling text, see “Creating Rolling, Crawling, and Path Text” on page 350.

Crawling Text

Crawling text is a single line of text that moves horizontally, usually from right to left, within a text object over the duration of the text object, starting and ending with no text visible. Examples of crawling text are a stock price ticker or a weather warning message along the bottom of a television screen. You can create crawling text that moves left and right within a text box.

For more information on crawling text, see “Creating Rolling, Crawling, and Path Text” on page 350.

Path Text

Path text (or text along a path) is a single line of text that fits to or moves along a straight or curvy path. Examples of path text are letters that follow the contour of a car or words that seem to float in the sky. Marquee allows you to create path text that moves along the path or is fixed on it.

For more information on rolling, crawling, and path text, see “Creating Rolling, Crawling, and Path Text” on page 350 and the chapter Placing and Moving Text on Paths.

Entering Text

You place text in a scene using the Text tool. You can type text, import text from a plain text file, and insert special characters into text.

Creating Text Objects

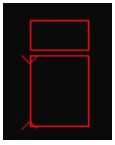
When you want to add text to a scene, you create a text object, a box into which you type the text. The box either can expand to fit the text you type or can be a fixed size within which the text word wraps.

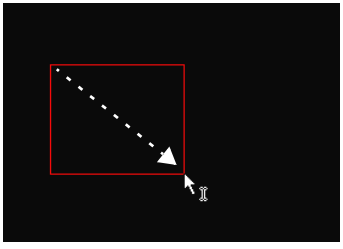
By default, text does not move (roll or crawl). For information on creating rolling or crawling text, see "Setting Up Scrolling Text" on page 350.

To create a text object:

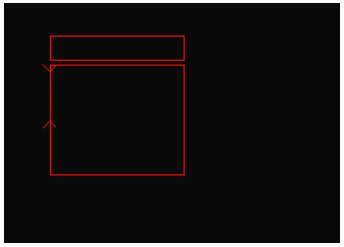
1. Click the Text tool.
2. If the insertion point is active in an existing text object, click away from the text object.

   You cannot create a new text object while you are editing the text in an existing text object.
3. Do one of the following:
   - Click at the location to start typing.

     
   - Drag a box defining the text box.

     Dragging in progress

     Dragging completed

The insertion point (a vertical bar) appears in the upper left corner of the text box.

4. Type in the new text box.

By default, text aligns along the left edge of the text box and uses the current text properties in the Properties windows. For information on changing the alignment of text in a text box, see “Aligning Text into Columns” on page 343.

The new text object becomes the frontmost object in the scene. Clicking outside the text box or clicking another tool finishes the creation of the text object and allows you to modify the text object or the characters within it.

To enter text in an existing text object:

1. Click the Text tool.
2. Click in the text object at the location where you want to start entering text.
3. Type or import the text.

To enter text along a path:

1. Create a path (see “Creating and Deleting Paths” on page 442).

2. Click the Text tool.
3. Click on the path.
4. Type the text.

Creating Line and Paragraph Breaks in Text

As you type text, you can create both line breaks and paragraph breaks.

A line break is useful for placing text on separate lines while keeping that text part of a single unit, for example, when placing several names on successive lines in a single category of a credit.

A paragraph break creates a larger space in the text and begins a new paragraph unit, for example, when moving from one category to another in a credit.

Some text operations, such as aligning text into columns, apply at the paragraph level, so in some circumstances you must use paragraph units to distinguish one kind of text from another. For example, if you have a range of text in a text object that you want to align using columns, and another range of text that you do not want to align, you must create separate paragraphs for the two ranges.

To create a line break in text:

- Press Enter (Windows) or Return (Macintosh).

To create a new paragraph in text:

- Press Shift+Enter (Windows) or Shift+Return (Macintosh).

Entering Special or Unicode Characters

In addition to typing standard characters such as letters, numbers, and punctuation, you can include special (extended) characters, for example, Ä (A diaeresis) in Marquee text. You can display any Unicode® character in Marquee text as long as the font you are using supports the character.

TrueType fonts work better than Type 1 (PostScript) fonts.

The methods available to you for entering special characters depend on the type of character you wish to enter and on your operating system.

On the Macintosh OS X operating system:

- You can enter single-byte characters directly from the keyboard (this includes all characters found on English, French, German, Italian, and Spanish keyboards).
- You can copy and paste any Unicode characters into Marquee from another application such as Microsoft® Word.
- You can use the Autotitler to create titles including Unicode characters. The input text files that the Autotitler uses must be Unicode-formatted files. For more information on the Autotitler, see "Using the AutoTitler" on page 544.

You cannot enter Unicode characters directly from the keyboard on the Macintosh. This applies to both title contents and text fields such as the names of titles or styles.

To use the Macintosh Character Palette to enter Unicode characters, you must first insert the characters into another application and then copy and paste them into Marquee.

On the Windows XP operating system:

- You can enter single-byte characters directly from the keyboard (this includes all characters found on English, French, German, Italian, and Spanish keyboards).
- You can copy and paste any Unicode characters into Marquee, either from another application such as Microsoft Word or directly from the Character Map utility.
- You can use the Autotitler to create titles including Unicode characters. The input text files that the Autotitler uses must be Unicode-formatted files. For more information on the Autotitler, see "Using the AutoTitler" on page 544.
- You can enter Unicode characters by typing codes, as described in the following procedures. Use the Character Map utility to determine Unicode code values, or visit www.unicode.com. The Windows Character Map utility also allows you to determine Alt key code sequences for some special characters.

To enter a special character using a Unicode value (Windows only):

▶ Press Alt+U, and then type the four-character Unicode value.

To enter a special character using an Alt key sequence (Windows only):

1. Press and hold the Alt key.
2. Type the value on the numeric keypad.
3. Release the Alt key.

   For example, use the Alt+0174 key sequence to enter the ® (registered trademark) symbol in the Times New Roman font.

This procedure works whether or not Num Lock is enabled on your keyboard.

Importing Text

Another way to enter text into a scene is to import the text from an ASCII or from a Unicode text file. For example, you can import a previously created text file containing the names in a credit roll.

To import text into a scene:

1. (Option) Create a text box, or place the cursor within an existing text box.

   If a text box is not currently active, the imported text will appear in a new text box that is half the width and height of the current container.

If you have created a new text box for rolling or crawling text by applying a Rolling Title or Crawling Title template, make sure to switch to the Text tool before importing text. If you do not, a new text box is created for the imported text.

2. Select File > Import > Text.

   The Import Text dialog box appears.

3. Select the ASCII text file to import.

   The text in the selected text file appears in the current container, using the current object properties.

Only the first 6000 characters of a text file are imported. Also, if a non-Unicode text file contains binary characters, only the text up to the first binary character is imported. This means that you cannot directly import files with complex word processor formatting such as RTF files or Microsoft® Word documents. On the Macintosh, if you are creating text files in TextEdit for import into Marquee, use Plain Text formatting, and save the files using the MacRoman or UTF-8 encodings.

Placing the Insertion Point

To specify the location where you want to type or import new text in a text object, move the insertion point to the location you want in the block of text.

You can click at the location where you want to place the insertion point, or you can move the insertion point using the keyboard.

To move to the previous character:

- Press the Left Arrow key.

To move to the next character:

- Press the Right Arrow key.

To move to the previous line:

- Press the Up Arrow key.

To move to the next line:

- Press the Down Arrow key.

Resizing Text Objects

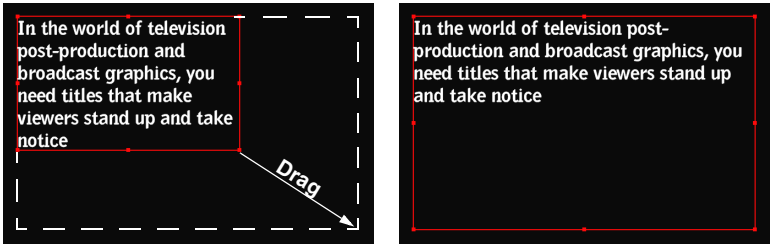
A text object is a container for text. If you resize the container, you can reformat the text by:

- Resizing the container only, keeping the font sizes of the text the same
- Scaling the text along with the container

  This feature is not available for text on a path.

To resize the text object but not the text within it:

1. Click the Edit tool, and then click the text object.
2. Drag one of the object's bounding-box handles.

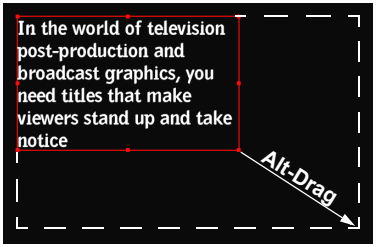


Before After

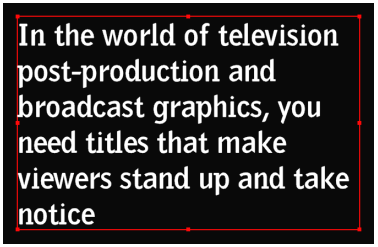
The text within the text object reformats appropriately to the new dimensions. For rolling text, the text wraps to fit the container. For crawling text, you see more or less of the text.

To scale the text as you resize the text object:

1. Click the Edit tool, and then click the text object.
2. Alt+drag (Windows) or Option+drag (Macintosh) one of the object's bounding-box handles.



Before



After

Selecting and Deselecting Text

Before you can modify a block of text (change its font, size, style, or other attribute), you must select the text. You can select text directly in the Monitor window, or in the Timeline window if the text is difficult to edit because it is rotated or not visible.

Use the Edit tool to select an entire text object. You can then change a text property such as the font or the color for the whole object. This is the best way to make a change that you want to apply to all the text in an object.

Use the Text tool to select a specific range of characters within a text object. You can then change a text property for those characters without changing the other characters in the object. Also use the Text tool to select any range of text, including all the text in an object, when you want to change the actual content of the text rather than one of the properties that control its appearance.

To select a text object using the Edit tool:

- Click the Edit tool, and then click anywhere inside the text object.

  A red bounding box with handles appears around the text object.

To select a range of text using the Text tool:

1. Click the Text tool.

   The text objects in the title are outlined with dotted-line bounding boxes.
2. Click inside the text object with which you want to work.

   A red box appears around the text object, a distinct top bar box appears above the object, and an insertion point appears inside the box.
3. Do one of the following:
   - To select all the text, press Ctrl+A (Windows) or ⌘+A (Macintosh).
   - To select a range of text, drag from the beginning of the range and release the mouse button at the end of the range.

     The range of text highlights as you drag.

Understanding Text Box Boundaries

The boundaries of a text box have a different appearance, depending on which tool is active and whether the text object is selected. The following illustration shows the different appearance options for the boundaries of a text box.

Edit tool active and object selected (bounding box with bounding-box handles)

Text tool active and object selected (box with top bar and insertion point)

Edit tool active and object not selected (no visible boundary)

Text tool active and object not selected (box with dotted white lines)

When you create a text object, the object's bounding box is sized based upon the font size setting at that time. If you change the text later (for example, by changing the text's font size or repositioning one or more of the individual character subobjects), the text box does not resize so that it surrounds the altered text.

This behavior is a result of the flexible way in which Marquee handles text objects and subobjects. The size and position of text in an object need to be largely independent of the object's original size to allow for complex effects such as animating individual characters.

You do not need to click inside a text object's bounding box in order to select the object. Click *anywhere* on the text using the Text tool or the Edit tool, and the appropriate bounding box appears.

The following illustration provides a visual summary of this behavior.

1. Original text object and its box as created with a font size of 10.

2. Text object and its box after the font size of the text is increased to 15. The text now extends beyond the box.

3. Text object and its box (now with the Edit tool active) after repositioning of individual characters in the text.

Editing Text

You can use common cut, copy, and paste operations on text.

To delete a block of text:

1. Select the characters to delete.

   For more information, see “Selecting and Deselecting Text” on page 332.

2. Press the Delete key, or select Edit > Cut, Edit > Delete (Windows), or Edit > Clear (Macintosh).

   The Cut command places the deleted text on the Clipboard; the Delete command (Windows) or Clear command (Macintosh) removes the text permanently.

To delete all the text in a text object:

1. With the insertion point in the text object, select Edit > Select All in Container.

   This operation does not delete the text object. If you want to delete the text object as well, select the text object.

2. Press the Delete key, or select Edit > Cut, Edit > Delete (Windows), or Edit > Clear (Macintosh).

To move a block of text:

1. Select the characters to move.

   For more information, see “Selecting and Deselecting Text” on page 332.

2. Select Edit > Cut.

   The selected text is placed on the Clipboard.

3. Move the insertion point to the target location.

4. Select Edit > Paste.

To copy a block of text:

1. Select the characters to duplicate.

   For more information, see “Selecting and Deselecting Text” on page 332.

2. Select Edit > Copy.

   A copy of the selected text is placed on the Clipboard.

3. Move the insertion point to the target location.

4. Select Edit > Paste.

Formatting Text

You can format blocks and columns of text in a variety of ways. You can change fonts, fonts styles, and font sizes, change spacing within text, change the direction of text, and adjust column sizes and text margins.

Changing Fonts and Font Sizes

To change the font of text:

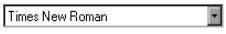
1. Do one of the following:

- Click the Edit tool, and then click the text object.

- Click the Text tool, and select a range of text.

  For more information, see "Selecting and Deselecting Text" on page 332.

Although you can make changes to the formatting of all the text in an object by selecting the text with the Text tool, doing so can cause problems, for example, with the way formatting information is represented in styles. Avid recommends that you make formatting changes for all the text in an object by selecting the object using the Edit tool.



2. In the Monitor Window toolbar or in the Text Properties window, select a font from the Font list.

When you use a control such as the Font list or the Font Size text box to change a property of a text object, the text object updates immediately in response to the change. However, you cannot continue making changes to the text object until you reselect it by clicking it in the Monitor window.

To change the font size of text:

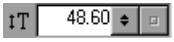
1. Do one of the following:

- Click the Edit tool, and then click the text object.

- Click the Text tool, and select a range of text.

  For more information, see "Selecting and Deselecting Text" on page 332.

2. Do one of the following:



- Adjust the Font Size value in the Monitor Window toolbar or in the Text Properties window.

- Press Ctrl+Shift+< (Windows) or ⌘+Shift+< (Macintosh) to decrease font size
- Press Ctrl+Shift+> (Windows) or ⌘+Shift+> (Macintosh) to increase font size.

You can also change the font size of the text in a text object by scaling the text object itself using the Edit tool. For more information on scaling objects, see "Scaling Objects" on page 296.

When you use a control such as the Font list or the Font Size text box to change a property of a text object, the text object updates immediately in response to the change. However, you cannot continue making changes to the text object until you reselect it by clicking it in the Monitor window.

Creating Bold or Italic Text

In Marquee, you make text bold or italic by changing the font to a Bold, Italic, or Bold Italic variant. For example, you might select Verdana Bold from the Font list to create bold text that uses the Verdana typeface.

To create bold or italic text:

1. Select an appropriate font from the Font list in the Monitor Window toolbar or in the Text Properties window.
2. Type the text.

To modify existing text to make it bold or italic:

1. Select the text you want to change.

   For more information, see "Selecting and Deselecting Text" on page 332.
2. Select an appropriate font from the Font list in the Monitor Window toolbar or in the Text Properties window.

Simulating Underlined Text

You cannot underline Marquee text in the same way that you might underline text in a word processing program. However, you can use a thin rectangle graphic to create the look of underlined text.

To simulate underlined text, do one of the following:

- Draw a thin rectangle graphic under the text, and then modify the properties of the graphic until you achieve the look you want.

  For more information, see "Creating Shapes" on page 362.

- Apply one of the line templates in the LinesandArrowheads folder of the Avid Templates folder in the Templates Library window to your title, and then modify it if necessary to achieve the look you want.

  For more information, see "Using Avid Templates" on page 536.

Adjusting Kerning

Kerning or character spacing is the horizontal gap between characters in a text object. When you adjust character spacing, you are adjusting the space after each selected character, except the last selected character on a line within a justified or equally spaced column. By default, characters are automatically kerned, based on information built into the character's font.

To adjust kerning for a whole text object or a range of text:

1. Do one of the following:

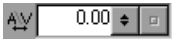
   - Click the Edit tool, and then click the text object.

   - Click the Text tool, and select a range of text.

   For more information, see "Selecting and Deselecting Text" on page 332.

2. Do one of the following:

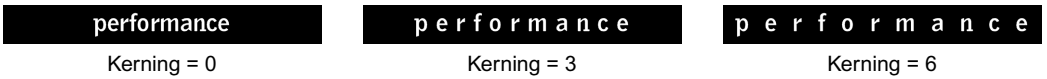
   

   - Adjust the Kerning setting in the Monitor Window toolbar or in the Text Properties window.
   - Press Alt+Left Arrow (Windows) or Option+Left Arrow (Macintosh) to decrease kerning
   - Press Alt+Right Arrow (Windows) or Option+Right Arrow (Macintosh) to increase kerning.

To adjust kerning between two adjacent characters:

1. Click the Text tool, and then click between the two characters.
2. Do one of the following:
   - Press Alt+Left Arrow (Windows) or Option+Left Arrow (Macintosh) to decrease kerning

- Press Alt+Right Arrow (Windows) or Option+Right Arrow (Macintosh) to increase kerning.



Kerning = 0 | Kerning = 3 | Kerning = 6

You can create text that expands from the center by using an unclipped text box with Equally Spaced justification and then adjusting the kerning.

When you change the Kerning in the Monitor Window toolbar, the new property value not only changes the selected text but also becomes the active value that Marquee uses for any new objects that are created.

When you use a control such as the Font list or the Font Size text box to change a property of a text object, the text object updates immediately in response to the change. However, you cannot continue making changes to the text object until you reselect it by clicking it in the Monitor window.

Adjusting Leading

Leading or line spacing is the vertical gap between the lines of a word-wrapped paragraph. When you adjust leading, you are adjusting the space after each line in the paragraph, except the last line.

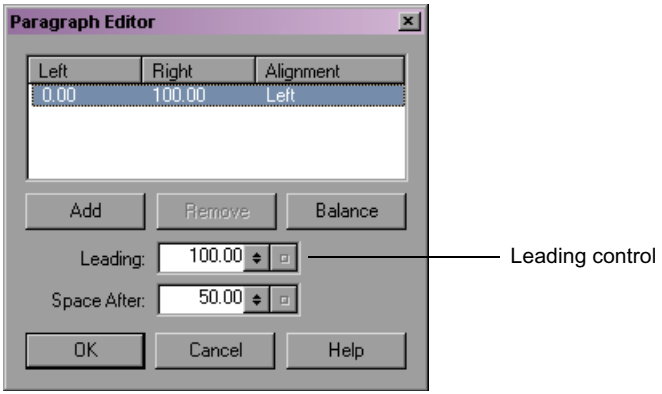
You can adjust leading for a single paragraph by using the Paragraph Editor dialog box. You can adjust leading for any number of paragraphs in a text box by using the Up Arrow and Down Arrow keys in combination with the Alt key (Windows) or the Option key (Macintosh).

Leading adjustments apply at the paragraph level. You cannot make a leading adjustment to only part of a paragraph, for example, the first three lines of a five-line paragraph.

To adjust leading by using the Paragraph Editor dialog box:

1. Click the Text tool, and then click in the paragraph you want to adjust.
2. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the text box, and select Paragraph Editor.

   The Paragraph Editor dialog box appears.



A common setting for leading is 120 percent of the font size (that is, set leading to 120).

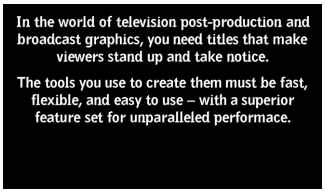
3. Adjust the Leading value, and then click OK.

To adjust leading by using the Up Arrow and Down Arrow keys:

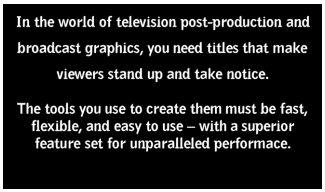
1. Click the Text tool, and then do one of the following:
   - To adjust leading in a single paragraph, click in the paragraph.
   - To adjust leading in more than one paragraph, select text within each of the paragraphs you want to adjust.

     For more information, see "Selecting and Deselecting Text" on page 332.
   - To adjust leading for all the text in a text box, click in the text box to make it active, and then press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text.
2. Do one of the following:
   - Press Alt+Up Arrow (Windows) or Option+Up Arrow (Macintosh) to decrease leading.
   - Press Alt+Down Arrow (Windows) or Option+Down Arrow (Macintosh) to increase leading.

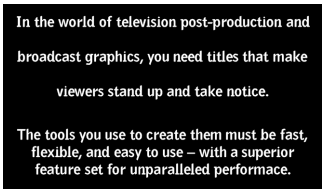
   The leading changes in increments of 1 percent of the font size.



Leading = 100



Leading = 150



Leading = 200

Adjusting Paragraph Spacing

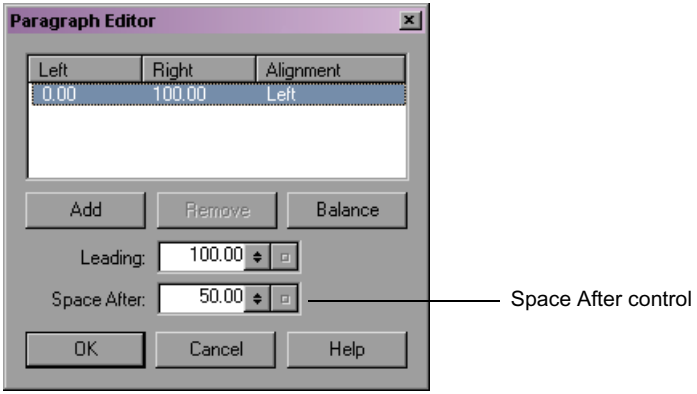
Paragraph spacing is the vertical gap between the last line of one paragraph and the first line of the next paragraph. When you adjust paragraph spacing, you are adjusting the space after each selected paragraph.

You can adjust paragraph spacing after a single paragraph by using the Paragraph Editor dialog box. You can adjust paragraph spacing after any number of paragraphs in a text box by using the Up Arrow and Down Arrow keys in combination with the Alt and Shift keys.

To adjust paragraph spacing by using the Paragraph Editor dialog box:

1. Click the Text tool, and then click in the paragraph you want to adjust.
2. Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the text box, and select Paragraph Editor.

   The Paragraph Editor dialog box appears.



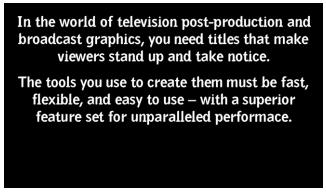
3. Adjust the Space After value, and then click OK.

To adjust paragraph spacing by using the Up Arrow and Down Arrow keys:

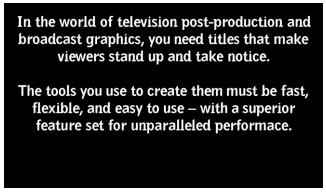
1. Click the Text tool, and then do one of the following:
   - To adjust paragraph spacing after a single paragraph, click in the paragraph.
   - To adjust paragraph spacing after more than one paragraph, select text within each of the paragraphs you want to adjust.

     For more information, see "Selecting and Deselecting Text" on page 332.
   - To adjust paragraph spacing after all the paragraphs in a text box, click in the text box to make it active, and then press Ctrl+A (Windows) or ⌘+A (Macintosh) to select all the text.
2. Do one of the following:
   - Press Alt+Shift+Up Arrow (Windows) or Option+Shift+Up Arrow (Macintosh) to decrease paragraph spacing.
   - Press Alt+Shift+Down Arrow (Windows) or Option+Shift+Down Arrow (Macintosh) to increase paragraph spacing.

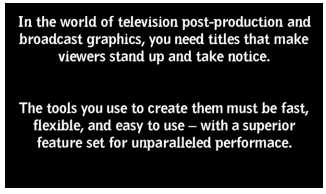
   Paragraph spacing changes in increments of 1 percent of the font size.



Space after first paragraph = 50



Space after first paragraph = 100



Space after first paragraph = 200

Changing the Direction of Text

As you type new characters into a text box, the insertion point moves in a specific direction. By default, the insertion point moves from left to right, but you can switch the direction if you are typing in a language that is read from right to left. You can switch the direction of a text box at any time.

To change the direction of text in a text box:

1. Click the Text tool, right-click in the text box, and select Direction > Left-to-Right or Direction > Right-to-Left:
   - *Left-to-Right* — Each new character is added to the right of the previous character. This is the default direction.
   - *Right-to-Left* — Each new character is added to the left of the previous character. Use this option for languages, such as Hebrew or Arabic, that are written in a right-to-left direction.

     In this mode, the Left Arrow key moves the insertion point to the right, whereas the Right Arrow key moves the insertion point to the left.

The text in a text box does not automatically switch to right-aligned text when you switch the text direction to Right-to-Left. The text in a text box whose Motion is set to Crawl does not automatically switch the direction of the crawl when you switch the text direction to Right-to-Left.

Aligning Text into Columns

By default, a text object contains a single column of left-aligned text. You can create columns of text, change the width and alignment of text within a column, and remove columns. Use columns for tabular information or to save vertical space (for example, using a three-column layout for names in a credit roll). The text within each column should fit within the width of the column.

Marquee applies column attributes to text at the paragraph level, and you modify column attributes in the Paragraph Editor dialog box. If a text box has more than one paragraph, make sure that the insertion point is in the paragraph you want to change before you modify column attributes.

You cannot animate the number of columns, the width of columns, or the alignment of text within columns over the duration of the text object.

Text alignment does not work for crawling text, including text crawling along a path. However, you can align static text on a path.

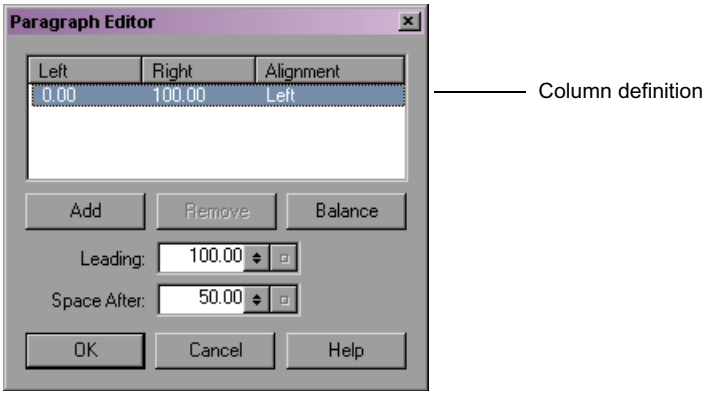
Adding Columns

You can add a column to a section of text to break text lines into two separate sections, each of which can have its own text alignment. For example, you can use a two-column layout for ending credits, where the actor's name is right-aligned in the first column and the character name is left-aligned in the second column.

To add a new column to a paragraph:

1. Click the Text tool, and then click in the paragraph you want to modify.
2. Right-click (Windows) or Ctrl+click (Macintosh) in the text box, and select Paragraph Editor.

   The Paragraph Editor dialog box appears.



   Each column currently defined in the current paragraph of the text box appears as a row with the following values:

   - *Left* — The left edge of the column
   - *Right* — The right edge of the column
   - *Alignment* — The alignment of the text within the column

   The Left and Right values are numbers between 0 (for the left edge of the text box) and 100 (for the right edge). The distance between the Left and Right values defines the width of a column.

3. The new column will be added after an existing column. Select the row entry that corresponds to the existing column.
4. Click Add.

The existing column's width is split in half. For example, in a column that occupies 50 percent of the width of a text box, after you add a column, the existing and new columns' widths are 25 percent each.

You can create up to ten columns in a paragraph.

5. (Option) Repeat steps 3 and 4 for each new column that you want to add.
6. Click OK.

To type in the next column within a multicolumn text box:

- Press the Tab key.

Tab characters are interpreted as a jump to the next available column in the paragraph.

Before (one column)

After adding a column and typing text into it

Removing Columns

You can remove a column when you no longer need to separate the text alignment for sections of text.

To remove a column:

1. Click the Text tool, and then click in the paragraph you want to modify.
2. Right-click (Windows) or Ctrl+click (Macintosh) in the text box, and select Paragraph Editor.

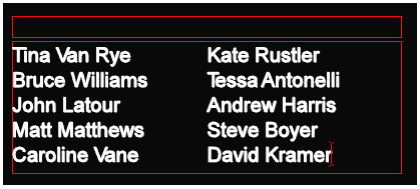
   The Paragraph Editor dialog box appears.
3. Select the entry corresponding to the column you want to remove.

You cannot remove the last column of text. Each text object contains at least one column.

4. Click Remove.
5. (Option) If you want the remaining columns to occupy the space left by the removed column, adjust their widths.

   The remaining columns do not automatically widen to occupy the space left by the removed column. For more information on widening columns, see "Changing the Width of Columns" on page 346.
6. Click OK.

The text in the removed column moves to the previous column, separated from the previous column's contents by a space. If you remove the first column, the text moves to the next column.



Before (two columns)

After removing the right column and resizing the remaining column to the full width of the text box

If you change from two columns to one column, the text word wraps. However, if you start with three or more columns, the text does not word wrap.

Changing the Width of Columns

You can change the width of a column to adjust the positioning of text within the column. You can also adjust the position of adjacent columns by creating a gap, called a gutter, between them.

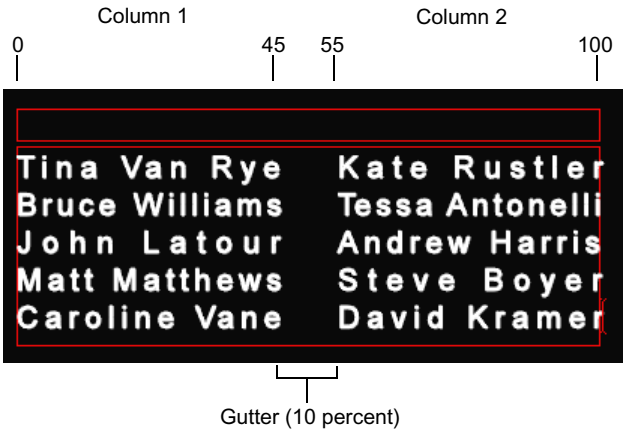
To change the width of a column:

1. Click the Text tool, and then click in the paragraph containing the column.
2. Right-click (Windows) or Ctrl+click (Macintosh) in the text box, and select Paragraph Editor.

   The Paragraph Editor dialog box appears.
3. Select the entry corresponding to the column whose width you want to change.

4. To change the left edge of a column, click the Left column value, type a new value in the text box, and then press Enter (Windows) or Return (Macintosh).

   The width of a column is relative to the width of the column's text box, where 0 is the left edge of the text box and 100 is the right edge. Columns cannot overlap.



5. To change the right edge of a column, click the Right column value, type a new value in the text box, and then press Enter (Windows) or Return (Macintosh).
6. Click OK.

The text in the current column adjusts to the new column width, but long lines of text do not word wrap.

By changing the left and right sides of adjacent columns, you change the gutter between the columns. If you are using justified or equally spaced columns, gutters are important to help differentiate the contents in each column. By default, there is no gap between columns.

Setting All Columns to the Same Width

Another way to adjust the positioning of text in multiple columns is to use the same width for all the columns on a line, also known as balancing the columns. You can also balance columns after removing a column to make the widths of each column the same.

To set all the columns in a paragraph to the same width:

1. Click the Text tool, and then click in the paragraph containing the columns.
2. Right-click (Windows) or Ctrl+click (Macintosh) in the text box, and select Paragraph Editor.

   The Paragraph Editor dialog box appears.
3. Click Balance.
4. Click OK.

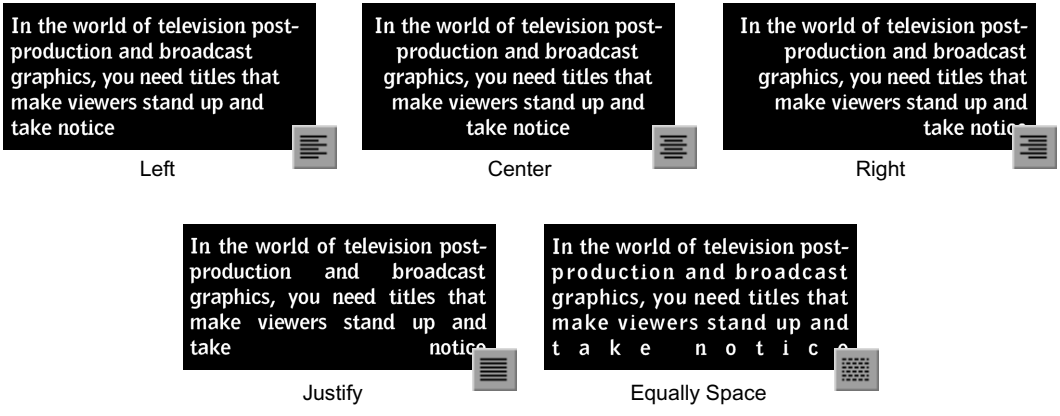
Changing the Text Alignment of Columns

You can change the alignment or positioning of text within a column to make the text more readable or to produce a specific type of effect, such as text that is right-aligned and next to the left edge of a graphic in the scene. Each column of text can be aligned to either the left or right side of the column, centered within the column, or aligned to both sides of the column, with extra spacing added between either words or characters.

To change the text alignment in a column:

1. Click the Text tool, and then click in the paragraph containing the column.
2. Do one of the following:
   - Click a text alignment button in the toolbar.
   - Right-click (Windows) or Ctrl+click (Macintosh) in the column of text, and select Align > *alignment*.

   The following illustration shows the text alignment options.



The text in the selected column uses the selected alignment.

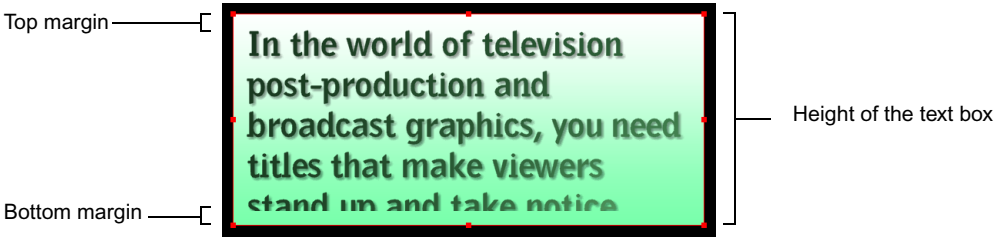
Adjusting the Text Margins

By default, the characters in a text box can appear anywhere within the text box's dimensions. However, if you are using a background material (see "Applying Materials to Object Surfaces" on page 455) and want to offset the text from the sides of the text box and edge of the background material, increase the side's margin. You can specify a margin along the top and bottom of a text box and simulate a margin along the left and right sides by adjusting the text column settings.

To adjust the top and bottom margins of a text box:

1. Click the Edit tool, and then click the text box.
2. In the Text Properties window, adjust the "Top margin" and "Bottom margin" values.

   Adjusting the Top margin moves the text downward. Adjusting the Bottom margin (for rolling text only) crops the text from the bottom of the text box. The Bottom margin value has no effect on static and crawling text.



To simulate the left margin for a text box:

- Adjust the Left value for the leftmost column in the text box.

To simulate the right margin for a text box:

- Adjust the Right value for the rightmost column in the text box.

For information on editing text columns, see "Changing the Width of Columns" on page 346.

Creating Rolling, Crawling, and Path Text

For rolling, crawling, and path text, the text scrolls within the text object over time. The text is not visible at the start of the text object's duration, scrolls into view, and is not visible at the end of the duration. For example, you may see five lines of text roll by per second or 10 characters crawl by per second.

Setting Up Scrolling Text

Setting up rolling, crawling, and path text is as simple as selecting an option from the Text shortcut menu. Path text is a variation of crawling text.

For more information on path text, see the chapter Placing and Moving Text on Paths.

When you convert an existing text object into rolling or crawling text, you might create a roll or crawl that cannot be saved as an Avid Rolling Title or Crawling Title. Rolling and crawling title objects must meet specific requirements, descibed in "Rolling Titles" on page 223 and "Crawling Titles" on page 224. You can use the Adjust Roll and Adjust Crawl buttons to conform a title so that it can be saved as an Avid Rolling Title or Crawling Title. For more information, see "Using the Adjust Roll and Adjust Crawl Toolbar Buttons" on page 357. If you create a roll or crawl that cannot be saved as an Avid Rolling Title or Crawling Title, you can still save it as an Animated Title.

To make the text roll or crawl within the text object:

1. Click the Text tool, and then click in the text box.
2. Right-click (Windows) or Ctrl+click (Macintosh) above the text box, and select Motion > Roll or Motion > Crawl. For text on a path, select Motion > Crawl (the Roll option is not available).

   For nonpath text, a scroll position slider appears along the side of the text box. Along the slider is a scroll position arrow that controls the portion of the text visible at the current time. For more information on the use of the scroll position slider, see "Controlling Your View of Rolling and Crawling Text" on page 352 and "Controlling Scrolling Speed and Direction" on page 355.

3. If the text object does not meet the requirements for an Avid Rolling Title or Crawling Title, a message box appears asking if you want to adjust the object so that it meets the requirements for an Avid Rolling Title or Crawling Title. Do one of the following:

   - Click OK to adjust the object so that it meets the requirements for an Avid Rolling Title or Crawling Title.
   - Click Cancel to leave the object with its current formatting. The title will be saved to your editing application as an Animated Title unless you change it at a later point to meet the requirements for an Avid Rolling Title or Crawling Title.

     For more information, see "Avid Editing Application Title Types Created from Marquee Titles" on page 222.

When you select the Roll option, the text box's "Scroll position" property is automatically set up for a rolling motion from the bottom to the top of the text box. When you select the Crawl option, the text box's "Scroll position" property is automatically set up for a crawling motion from right to left (for nonpath text) or from the start to the end of the path (for path text).

You can change the speed and direction of the motion by editing the "Scroll position" property or using the scroll position arrow, as described in "Controlling Scrolling Speed and Direction" on page 355.

If you are creating a rolling or crawling title that you intend to save to a bin as an Avid Rolling Title or Crawling Title, the "Scroll position" property values must remain at their default settings (0 for the start of the roll or crawl and 100 for the end). Do not adjust "Scroll position" property values in Marquee. You can adjust the speed of the rolling or crawling title in your editing application.

If you click the text object (container) or click away from the text box and are at the start or end of the text box's duration, no text appears in the text boxes. This happens because, by default, the text in rolling-text or crawling-text boxes moves across the text box over its duration, starting and ending with text just out of view.

Page Count Limits for Rolling Titles

A Marquee rolling title must not exceed the page count limits listed in the following table if it is to be saved to your Avid editing application as an Avid Rolling Title. One page equals one screen of text or other objects. For more information on saving titles as Avid Rolling Titles, see "Rolling Titles" on page 223.

Page Count Limits for Avid Rolling Titles

Title Format	Page Count Limit
NTSC single format	78
PAL single format	77
NTSC multi-format	67
PAL multi-format	56

The table distinguishes between single format and multi-format titles. A single format title is a title that you save in only one format in your Avid editing application, while a multi-format title is a title that you save in more than one format (for example, both 4 x 3 and 16 x 9 NTSC). For more information on multi-format titles, see "Working with Titles on Systems with 24p or 25p Support" in the Help for your Avid editing application.

If you create a Marquee rolling title that is too long to be saved as a multi-format Avid Rolling Title but that is within the page count limit for a single format Avid Rolling Title:

- A message box in Marquee warns you that you cannot use the multi-format options
- The multi-format options are not available in the Save Title dialog box for your Avid editing application.

Controlling Your View of Rolling and Crawling Text

In most circumstances, rolling, crawling, and path text objects contain more characters than can be seen at one time. You must scroll (or move through the object in time) in order to see other parts of the text. In these situations, the

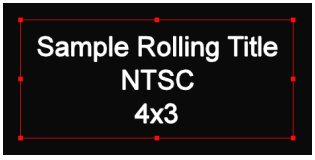
appearance of the text objects and the means by which you scroll vary, depending on which tool is active and whether or not the insertion point is in the object.

When a rolling, crawling, or path text object is selected using the Edit tool, you must use the standard time controls to scroll through the text object. You can change the location of the position indicator in the Timeline window, or you can drag in the Time Display area of the Monitor Window status bar. For more information, see “Moving Through Time” on page 262.

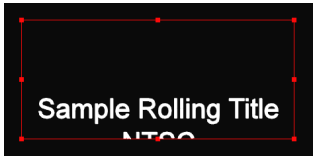
For a default rolling, crawling, or path text object, no text is visible at the beginning or at the end of the object’s duration.

The following illustration shows a default rolling text object from a template at various points in the duration of the object.

Beginning of object’s duration



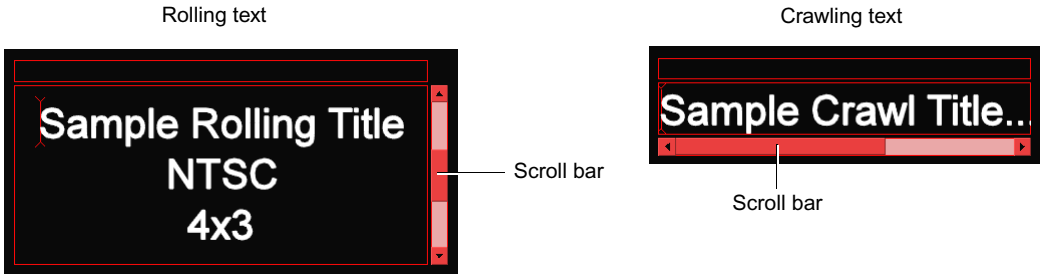
50% through object’s duration



25% through object’s duration

75% through object’s duration

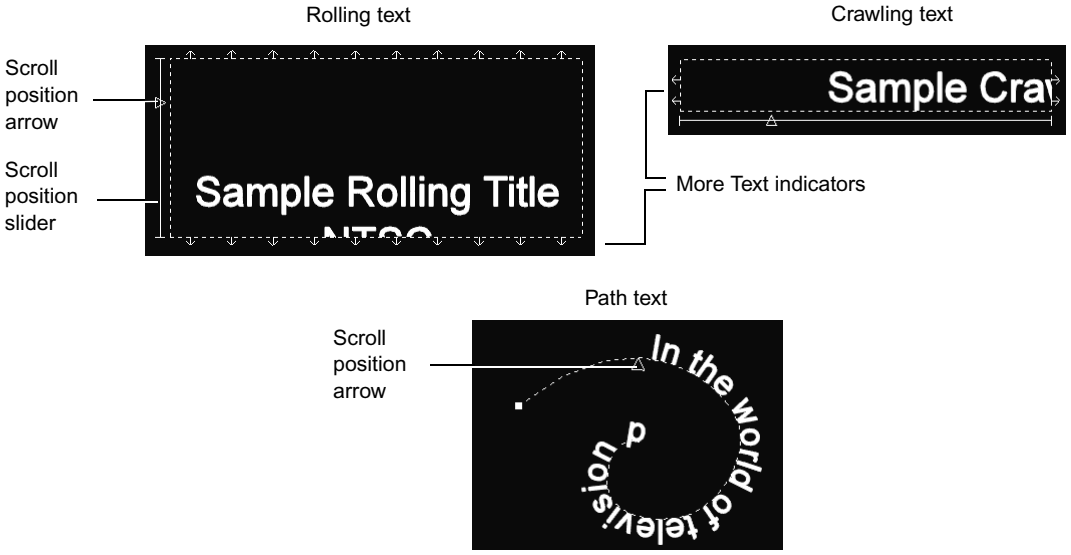
When the insertion point is in the text object, a scroll bar appears along the right edge (for rolling text) or bottom edge (for crawling text) of the text object. (A scroll bar does not appear for path text.) You can drag the scroll bar to view and edit any part of the text in the text object.



When the Text tool is active but the insertion point is not within the text object, a white scroll position slider appears along the left edge (for rolling text) or along the bottom edge (for crawling text and path text) of text objects. For rolling and crawling text, small arrows appear along the sides of the text object, indicating that there is more text beyond the boundaries of the text box.

It is possible to scroll through the text by dragging the scroll position arrow. However, dragging the scroll position arrow modifies the object's scroll position property and therefore changes the scrolling behavior of the finished roll or crawl. To scroll through text while you are working, without changing the final scrolling behavior, always select the text object with the Text tool and scroll with the red scroll bar, or select the text object with the Edit tool and drag in the Time Display area.

The scroll bar appears when you are editing text, whereas the scroll position slider appears when you are animating the section of text visible over time.



To edit the scroll position of text using the "Scroll position" property control in the Text Properties window, click the Edit tool, click in the text box, and then adjust the "Scroll position" property value.

For more information on controlling scrolling text, see "Creating Rolling, Crawling, and Path Text" on page 350.

Controlling Scrolling Speed and Direction

For rolling and crawling text, you adjust the speed and direction of the roll or crawl by using the "Scroll position" property control in the Text Properties window. Scroll position does not apply to static text. You can adjust scroll speed and direction in either the Edit tool or the Text tool.

If you adjust the "Scroll position" property to a non-default value, your title cannot be saved to your Avid editing application as an Avid Rolling Title or Crawling Title but must be saved as an Animated Title. For more information, see "Avid Editing Application Title Types Created from Marquee Titles" on page 222.

If you need to reverse the normal direction of rolling or crawling text (for example, to make text roll from top to bottom or crawl from left to right), invert the default "Scroll position" property values using one of the following

procedures. Set a “Scroll position” property value of 100 at the beginning of the rolling or crawling text’s duration and a “Scroll position” property value of 0 at the end of the duration. Rolling or crawling text that you reverse in this way cannot be saved as an Avid Rolling Title or Crawling Title and must be saved as an Animated Title.

To adjust a text object’s scroll speed and direction with the Edit tool:

1. If you are not already in Animation mode, click the Animation Mode button.

   The Animation Mode button changes to red.

2. Click the Edit tool, and then click the text object.
3. In the Text Properties window, adjust the “Scroll position” property value.

   Higher values move the text upward (for rolling text) or to the left (for crawling text). Lower values move the text downward or to the right.

To adjust a text object’s scroll speed and direction with the Text tool:

1. If you are not already in Animation mode, click the Animation Mode button.

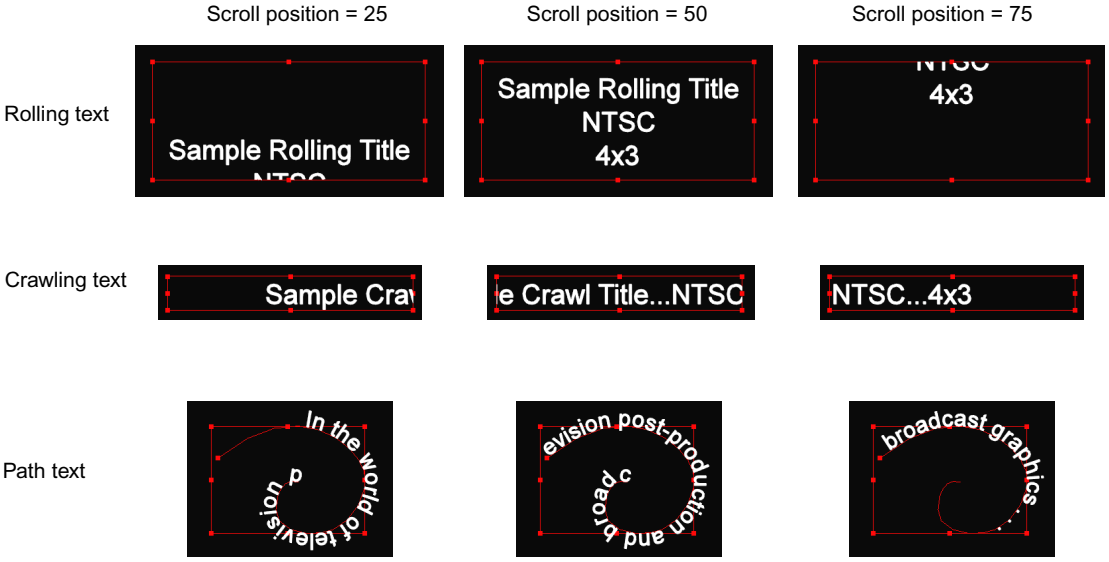
   The Animation Mode button changes to red.

2. Click the Text tool, and then click in the text box.
3. Press the Esc key.

   A scroll position slider and arrow appear for each text object.

4. Drag the scroll position arrow to specify the section of the text visible in the text box at the current time.

   The scroll position arrow’s location in the slider represents the “Scroll position” property value in the Text Properties window.



Using the Adjust Roll and Adjust Crawl Toolbar Buttons

The Adjust Roll and Adjust Crawl buttons allow you to quickly create a rolling or crawling text object that meets the requirements for saving a title to a bin as an Avid Rolling Title or Crawling Title.

You can use the Adjust Roll or Adjust Crawl toolbar button with a title that does not yet contain any title objects or with a title that contains a single text object.

To create an empty rolling or crawling text object in a title that has no title objects:

- Click the Adjust Roll or Adjust Crawl button in the Monitor Window toolbar.

  A new rolling or crawling text object appears. The title now meets the requirements for an Avid Rolling Title or Crawling Title.

To modify the text object in a title that contains a single text object:

- Click the Adjust Roll or Adjust Crawl button in the Monitor Window toolbar.

Marquee modifies the existing text object so that it becomes a rolling or crawling text object. The title now meets the requirements for an Avid Rolling Title or Crawling Title.

If the Adjust Roll or Adjust Crawl operation cannot be performed successfully, a message box appears informing you of the problem. You can then make manual adjustments to the title and retry the Adjust Roll or Adjust Crawl operation. For example, if there are multiple objects in the title, the following message box appears.

Marquee treats the changes made by the Adjust Roll or Adjust Crawl toolbar button as a single operation. If you do not like the changes made by the Adjust Roll or Adjust Crawl toolbar button, you can press Ctrl+Z (Windows) or ⌘+Z (Macintosh) once to undo them.

Clipping Text

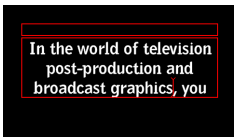
The characters in a rolling or crawling text box are, by default, visible only within the dimensions of the text box; characters (or portions of them) are clipped to these dimensions. However, you can turn off clipping. This allows characters to appear and move outside the text box. You might want unclipped text if you want characters to fly off screen or if the text has a shadow (see "Adding Shadows to Objects" on page 509) that you do not want clipped.

Text that moves along a path is always clipped, but clipped between characters. Either the character appears, or it does not appear. You will not see a partial character at the ends of a path.

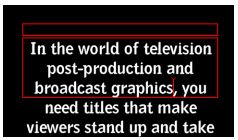
To enable or disable clipping of characters to the dimensions of the text box:

- Click the Text tool, right-click (Windows) or Ctrl+click (Macintosh) above the text box, and select Clip to Text Box.

  The text is either clipped or unclipped.

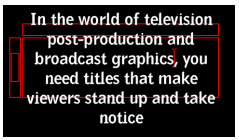


Clipped static text



Unclipped static text

Clipped rolling text



Unclipped rolling text

Clipped rolling text boxes are not clipped on their left and right sides. Clipped crawling text boxes are not clipped on their top and bottom sides.

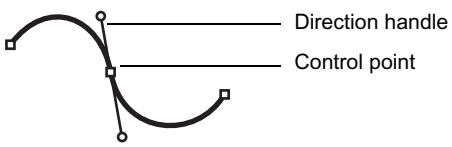
Chapter 9
Working with Graphics

This chapter describes how you create and modify two-dimensional graphic objects, such as rectangles, ellipses, polygons, and curved shapes. By applying colors, gradients, and images (all described in the chapter "Working with Surfaces and Materials" on page 451) to graphic objects, you can enhance the text in your title.

This chapter covers the following topics:

Understanding Graphics

A graphic object is a geometric shape, such as a square, ellipse, or polygon. Each shape is made up of Bézier control points and handles that define a shape's form. The portion of a shape between control points is known as a segment.



You can use shapes to define areas of a page for images or textures. For example, use a rectangular shape for an “over-the-shoulder” graphic or a gradient background for a title.

You can modify the form of shapes at any time.

Creating Shapes

Rectangle tool 

Ellipse tool 

Shape tool 

You can use the following tools to create shapes:

- Rectangle tool
- Ellipse tool
- Shape tool

New shapes you create become the frontmost objects in the scene.

Creating Squares and Rectangles

The Rectangle tool lets you create square and rectangular shapes. For example, you can use this tool to create the basis for a textured backdrop or gradient fill onto which you add text objects.

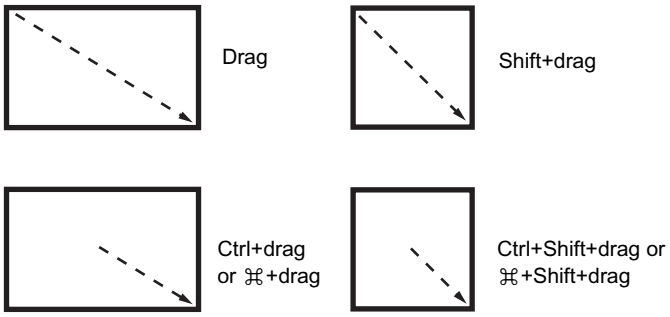
To create a rectangular or square shape:

1. Click the Rectangle tool.
2. If a shape is currently selected, click away from the shape to deselect all shapes.

You cannot create a shape if shapes are currently selected.

3. Do one of the following:
   - To create a rectangular shape, drag from one corner of the intended shape to the opposite corner of the shape.
   - To create a square shape, Shift+drag from one corner to the opposite corner of the shape.

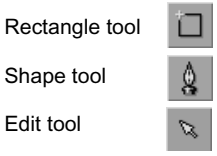
- To create a rectangular or square shape from the center, Ctrl+drag (Windows) or ⌘+drag (Macintosh) from the intended center of the shape to create a rectangle, or Ctrl+Shift+drag (Windows) or ⌘+Shift+drag (Macintosh) from the intended center of the shape to create a square.



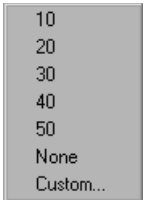
Rounding Corners of Squares and Rectangles

You can round the corners of a square or rectangle. You can select a rounding amount from a set of specific values, or you can enter a custom corner radius.

To round square or rectangle corners:



1. Do one of the following:
   - Click the Rectangle tool, and then draw a new square or rectangle.
   - Click the Shape tool, and then select an existing square or rectangle.
   - Click the Edit tool, and then select one or more existing squares or rectangles.



2. Do one of the following:
   - Select Object > Set Corner Radius > *radius optio*n, or select Object > Set Corner Radius > Custom to define a custom corner radius.
   - If the Rectangle or Shape tool is active, right-click (Windows) or Ctrl+click (Macintosh) the object whose corners you want to round, and select Set Corner Radius > *radius option*, or select Set Corner Radius > Custom to define a custom corner radius.
3. (Option) If you select Custom in step 2, the Corner Radius dialog box appears. Type a custom radius in the New Radius text box, and then click OK.

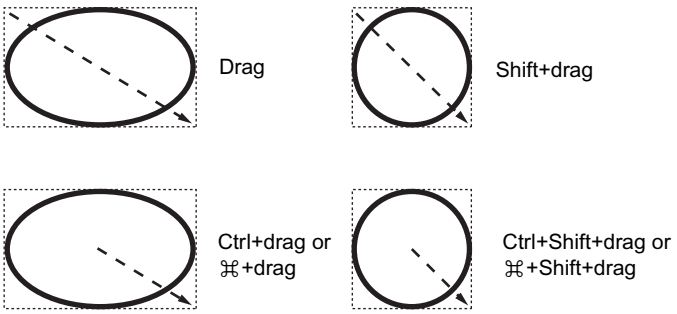
If you scale an object with rounded corners, the corner radius scales along with the rest of the object. Depending on the look you want to achieve, you might need to reset the corner radius for an object after you scale it.

Creating Circles and Ovals

The Ellipse tool lets you create circular and elliptical (oval) shapes.

To create an ellipse or circle shape:

1. Click the Ellipse tool.
2. If a shape is currently selected, click away from the shape to deselect all shapes.
3. Do one of the following:
   - To create an ellipse shape, drag from one corner to the opposite corner of the intended shape's bounding box.
   - To create a circle shape, Shift+drag from one corner to the opposite corner of the bounding box.
   - To create an ellipse or circle shape from the center, Ctrl+drag (Windows) or ⌘+drag (Macintosh) from the intended center of the bounding box to create an oval, or Ctrl+Shift+drag (Windows) or ⌘+Shift+drag (Macintosh) from the intended center of the bounding box to create a circle.



Creating Polygons and Curved Shapes

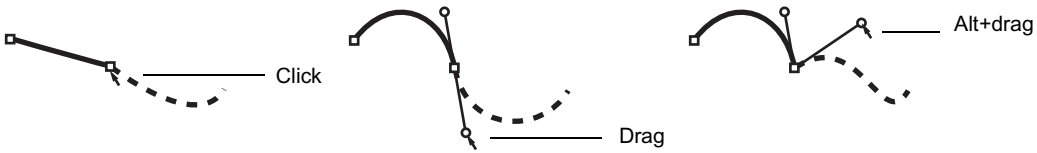
The Shape tool lets you create polygons and curved shapes.

To create a shape with the Shape tool:

1. Click the Shape tool.
2. If a shape is currently selected, click away from the shape to deselect all shapes.
3. Place the starting control point by doing one of the following:
   - To start a polygon, click at the location where you want to place the starting control point.
   - To start a curved shape, drag from the location of the starting point in the direction you want the curve to point.

If you want to create a new shape above an existing shape, press and hold the Alt key (Windows) or Option key (Macintosh) as you click to create the first control point. If you do not use the Alt key (Windows) or Option key (Macintosh), Marquee assumes that you want to select the existing shape.

4. Place subsequent control points, as follows:
   - To create a straight-line segment, click at the location for the next control point.
   - To create a curved-line segment with a smooth point, drag from the location of the next control point.
   - To create a curved-line segment with a corner (angular) point, drag from the location of the next control point. Then, while still pressing and holding the mouse button, Alt+drag (Windows) or Option+drag (Macintosh) the direction handle.



For more information on editing control points and direction handles while creating shapes with the Shape tool, see "Editing the Form of Shapes" on page 367.

5. Do one of the following:
   - To create a closed shape, click the first control point you created.

- To create an open shape, press the Esc key, click the right mouse button (Windows), press the Ctrl key and click the mouse button (Macintosh), or click a different tool.

Closed shapes are initially filled with the default Main material. Open shapes cannot be filled. For information on controlling the fill of closed shapes, see "Filling Closed Shapes" on page 373.

If an open shape has no edge (see "Creating Edge Effects" on page 487), the open shape uses the default Main material. Otherwise, the shape uses the default Edge material.

Importing Artwork

You can import artwork, such as bitmap images and animations, into a scene as a way of enhancing text and graphical elements.

You can also import artwork to use as the background for the scene. A background cannot be resized or repositioned within Marquee. For more information, see "Working with Backgrounds" on page 273.

To import a bitmap image or animation into a scene:

1. Click the Edit tool, and select the container in which to import the artwork by doing one of the following:
   - To import artwork into the scene, click away from any object.
   - To import artwork into a page of a deck, view the page in the Monitor window, and then click in the page.

     For more information on pages, see the chapter "Working with Decks and Pages" on page 389.
2. Select File > Import > Image.

   A file selection dialog box appears.
3. Select the image or animation to import.

   The image or animation appears as a texture on a rectangular shape in the center of the current container. The size of the rectangle is determined by the pixel dimensions of the image or animation. This process is equivalent

to creating a texture definition, creating a rectangular shape, and applying the texture to the shape. For more information on textures, see the chapter "Working with Surfaces and Materials" on page 451.

When Marquee renders the frames of titles to save them to a bin in your Avid editing application, it normally uses an image blurring technique to improve the look of details such as the edges of title objects. This method might result in unwanted softening of imported artwork in titles. You can turn off image blurring in the Render Options dialog box. For more information, see "Image Blur" on page 566.

Editing Shapes and Paths

For graphic objects (shapes and paths), you can modify the actual Bézier points and curves that define the form of the shape. Use the Shape tool for this function.

To edit a shape:

1. Click the Shape tool.
2. Click the shape you want to edit.
3. Edit the shape using the methods described in one or more of the following sections:
   - Editing the Form of Shapes
   - Opening and Closing Shapes
   - Filling Closed Shapes
   - Removing Segments

This section and the following sections refer to shapes and paths as shapes. Where appropriate, path-specific information is described. For more information on paths, see the chapter "Placing and Moving Text on Paths" on page 441.

Editing the Form of Shapes

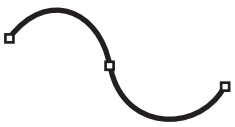
The form of a shape is determined by the position of its control points and direction handles as well as by the point type of its control points. When you add, delete, or move control points, adjust a control point's direction handles,

or change the point type of control points, you change the number of curve segments that make up a shape, or the shape of the curve segments, or the look of two curve segments as they meet at a point.

Control Point Types

Marquee offers three different types of control points, each of which results in a different behavior for segments connected to the point, as shown in the following table.

Control Point Types

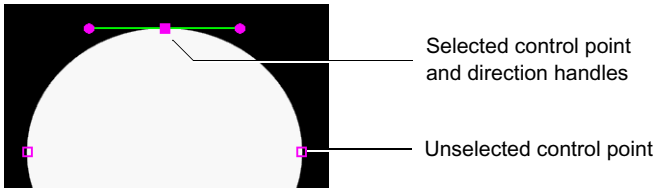
Point Type	Illustration
Cusp point	
Smooth point	
Corner point	

Selecting and Deselecting Control Points

For many shape-editing operations, you must select a control point first. You can select multiple control points to adjust them at the same time or deselect control points that you do not want to modify. You cannot select control points on multiple shapes at the same time.

For information on selecting the shape whose control points you want to select, see “Editing Shapes and Paths” on page 367.

Selected control points appear as solid squares and their direction handles appear as solid circles. Unselected control points appear hollow and do not display direction handles.



To select one control point	▸ Click the control point
To select multiple control points	▸ Shift+click the control points ▸ Drag a selection around the control points
To select all control points on a shape	▸ Right-click (Windows) or Ctrl+click (Macintosh) the shape, and select Select All Points
To switch the selection of a single control point	▸ Ctrl+click (Windows) or ⌘+click (Macintosh) the control point
To deselect all control points	▸ Click away from the shape ▸ Right-click (Windows) or Ctrl+click (Macintosh) the shape, and select Deselect All Points

Adjusting Control Points

You can add and delete control points, move control points, and change the point type of control points.

You can modify all selected control points by using a shortcut menu command when the pointer is not above a control point at the time you right-click (Windows) or Ctrl+click (Macintosh) to open the shortcut menu. Not all Shape shortcut menu commands are available when multiple control points are selected.

To add a control point:

- Alt+click (Windows) or Option+click (Macintosh) along the shape's outline.
- Right-click (Windows) or Ctrl+click (Macintosh) above the area of the shape where you want to add the control point, and select Insert Point.

To delete a control point:

- Click the control point, and then press the Delete key.
- Right-click (Windows) or Ctrl+click (Macintosh) above a control point (you do not have to select it first), and select Delete Point.

To move a control point:

- Drag the control point to the intended location.

To move a control point on a rotated object horizontally or vertically along its local axes:

- Shift+drag the control point.

  The direction you first drag becomes the constrained axis of movement.

To move a control point horizontally or vertically:

- Ctrl+Shift+drag (Windows) or ⌘+Shift+drag (Macintosh) the control point.

  The direction you first drag becomes the constrained axis of movement.

To change the point type of a control point to Cusp:

- Right-click (Windows) or Ctrl+click (Macintosh) above a control point, and select Make Cusp Points

To change the point type of a control point to Corner:

- Alt+drag (Windows) or Option+drag (Macintosh) a direction handle away from the control point.

  If the control point did not previously have a direction handle, this changes the point type to Corner, creates a single direction handle, and adjusts the curve on one side of the point as you drag.

  If the control point previously had two direction handles, this changes the point type to Corner and adjusts the curve on one side of the point as you drag. The other direction handle and the curve on the other side of the point do not change.

To change the point type of a control point to Smooth:

- Right-click (Windows) or Ctrl+click (Macintosh) above a control point, and select Make Smooth Points.
- If the control point has a single direction handle, Ctrl+drag (Windows) or ⌘+drag (Macintosh) the direction handle.

This changes the point type to Smooth, adds a second direction handle to the point, and adjusts the curves on either side of the point as you drag.

Adjusting Direction Handles

Every control point on a shape has two direction handles. Moving direction handles changes the shape of the segments that the direction handles control. Moving a single direction handle will affect the shape of the segment on only one side of the control point. Moving a pair of direction handles will affect the shape of the segments on either side of the control point.

The direction handles for a control point might not be visible even if the control point is selected. This is because one or both of the direction handles has zero length. For example, when you draw a rectangle with the Rectangle tool, you create a shape with four control points, but the direction handles for those control points are not visible even when the control points are selected.

To make a single direction handle visible on a control point:

- Alt+drag (Windows) or Option+drag (Macintosh) away from the control point in the direction in which you want the handle to appear.

  A single direction handle appears under the pointer. The curve under the control of the direction handle changes shape as you drag.

To make a pair of direction handles visible on a control point:

- Alt+drag (Windows) or Option+drag (Macintosh) away from the control point in any direction to create a single direction handle, then Ctrl+drag (Windows) or ⌘+drag (Macintosh) that direction handle.

  Once you start Ctrl+dragging (Windows) or ⌘+dragging (Macintosh), a second direction handle appears on the opposite side of the control point from the first. Both handles move as you drag, and the curve segments on both sides of the control point change shape as you drag.

To move one direction handle:

- Drag the direction handle.

  The handle moves freely as you drag — both its length and its orientation change. If the control point has a second direction handle, the second handle changes orientation but does not change length.

- Alt+drag (Windows) or Option+drag (Macintosh) the direction handle.

  The handle moves freely as you drag — both its length and its orientation change. If the control point has a second direction handle, the second handle remains fixed — it does not change orientation or length.

- Shift+drag the direction handle.

  The handle's movement is constrained to its previous orientation — that is, the handle changes length but does not change orientation. If the control point has a second direction handle, the second handle remains fixed — it does not change orientation or length.

To move a pair of direction handles:

- Drag one of the direction handles.

  The handle that you drag moves freely, changing both orientation and length. The second direction handle changes orientation but does not change length.

- Ctrl+drag (Windows) or ⌘+drag (Macintosh) one of the direction handles.

  Both handles change orientation and length as you drag.

- Shift+Ctrl+drag (Windows) or Shift+⌘+drag (Macintosh) one of the direction handles.

  Both handles move, but their movement is constrained to their previous orientation. That is, both handles change length but do not change orientation.

Opening and Closing Shapes

Another way to edit the form of shapes is to open, split, close, or connect them.

For information on selecting the shape you want to open or close, see "Editing Shapes and Paths" on page 367.

To thicken an open shape, use an edge effect such as Round or Tube.

To open a closed shape or split an open shape in two:

- Right-click (Windows) or Ctrl+click (Macintosh) above the control point at which to open or split the shape, and select Break Point.

Opening a closed shape

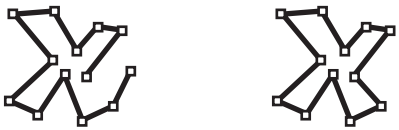
Splitting an open shape in two

The fill of a closed shape is lost when the shape is opened. Also, if you split an open path in two, the text on the path moves to one of the new paths.

To close an open shape or connect two open shapes as a single open shape:

- Drag an end point onto another end point on the same shape (to close a shape) or onto another shape (to connect the shapes).

Closing an open shape



Connecting two open shapes as one

Filling Closed Shapes

You can control the appearance of the interior of closed shapes by specifying whether the closed shape is filled or not. When you close an open shape that was not filled, the closed shape is automatically filled.

For information on selecting the shape you want to fill or not fill, see "Editing Shapes and Paths" on page 367.

To fill or not fill a closed shape:

- Right-click (Windows) or Ctrl+click (Macintosh) above any point on the shape, and select Fill Curve.

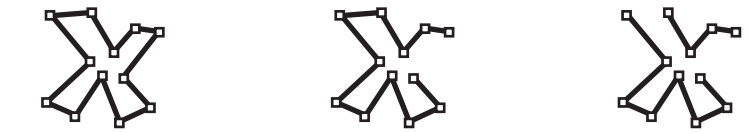
Removing Segments

Another way to open a shape or split a shape in two is to remove a segment from the shape.

For information on selecting the shape from which you want to remove a segment, see "Editing Shapes and Paths" on page 367.

To remove a segment from a shape:

- Right-click (Windows) or Ctrl+click (Macintosh) above the segment, and select Delete Segment.



If you remove a segment from a closed path, the text on the path adjusts to the new length of the path. If you remove a segment from an open path (splitting the path in two), the text on the path moves to one of the paths.

If a shape has only one segment (for example, a line), removing the segment produces two single-point shapes.

Creating and Editing Compound Shapes

You can combine multiple shapes into a single compound shape to create interesting effects. A compound shape is a single object composed of multiple, individually editable shapes. For example, if you want to create a custom

version of a letter, such as a stylized letter A for a company logo, you can define the various pieces of the letter and how they combine to draw the object. The following illustration shows some examples of compound shapes.

Compound shapes are not the same as a group of shapes. All the shapes within a compound shape exist at the same Z position in three-dimensional space. Also, the entire compound shape uses the same surface materials. You cannot modify the material of each shape within the compound shape.

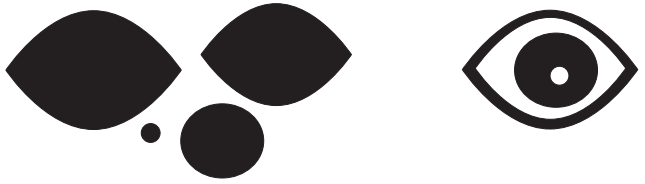
Creating and Separating Compound Shapes

You can combine shapes into a compound shape, make a copy of a shape that is part of a compound shape, and detach all the shapes within a compound shape.

To create a compound shape:

1. Click the Edit tool, and move the shapes to the positions you want them to occupy in the compound shape.
2. Select the shapes.

   The properties of the last shape you select will be used for the combined shape. For more information on selecting multiple shapes, see "Selecting and Deselecting Objects" on page 280.
3. Select Object > Combine Shapes.



Before combining

After repositioning and combining

By default, a shape within another shape inverts or “cuts out” the outer shape.

If you select a path to combine with other shapes, the text on the path is removed.

To make a copy of a shape that is part of a compound shape:

1. Click the Shape tool, and then click the compound shape.

   All the control points on the shapes that make up the compound shape appear.
2. Right-click (Windows) or Ctrl+click (Macintosh) above one of the control points on the shape you want to copy, and select Copy As Shape.

The copied shape appears above the original shape. Any transformations (for example, translation, scaling, and rotation) or animation applied to the compound shape will not be applied to the copied shape.

Before copying

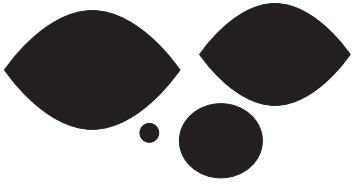
After copying and moving apart

To separate a compound shape into its individual shapes:

1. Click the Edit tool, and then click the compound shape.
2. Select Object > Separate All Shapes.

The properties of the separated shapes will be the same as those of the original compound shape. However, material properties, such as how a texture is applied to the object, might be altered.

Before separating



After separating and moving apart

Combining Shapes Within a Compound Shape

The way you position the shapes within a compound shape can affect the appearance of the compound shape. When shapes of a compound shape do not overlap each other, both shapes appear in the compound shape. When shapes of a compound shape overlap, the inner shape "cuts out" or subtracts from the outer shape. However, you can add the overlapping shape to the compound shape instead of subtracting from it.

To control how one shape affects another within a compound shape:

- Click the Shape tool, right-click (Windows) or Ctrl+click (Macintosh) the shape you want to modify, and select Combine Mode > Subtract or Combine Mode > Add.

Nonoverlapping shapes (Add or Subtract mode)

Overlapping shapes (Subtract mode)

Overlapping shapes (Add mode)

If shapes within a compound shape do not overlap, Subtract mode produces the same results as Add mode.

Reversing the Direction of Shapes

Control points on a shape are numbered sequentially, starting at the first control point on the shape. The route through sequentially numbered control points determines the shape's direction. This direction controls how the shape is drawn when it is part of a compound shape, how the edge of the shape is drawn, and how the text on a path is laid out. You can change the default direction for a shape or path.

To reverse the direction of a shape or path:

1. Click the Shape tool, and then click the shape or path you want to modify.
2. Right-click (Windows) or Ctrl+click (Macintosh) above the shape or path, and select Reverse Direction.

Chapter 10
Working with Digital Video Effects

This chapter describes how to create digital video effects (DVEs) in a scene and modify their appearance.

This chapter includes the following sections:

Understanding Digital Video Effects (DVEs)

A digital video effect (DVE) is an object whose appearance you can deform based on an effect or image you apply to it. Examples of DVEs are spheres, page curls, and ripples. For some DVEs, you can simulate a nonsmooth surface by applying a grayscale texture known as a displacement map.

You can modify DVE objects like other objects, with the following exceptions:

- Editing using the Shape tool
- Edge effects
- Extrusion
- Wireframe rendering
- Converting to a path
- Combining with other shapes or DVE objects

Creating and Deleting DVEs

When you want to include a DVE in a scene, you need to create a DVE object. You can create multiple DVEs within a scene. You can delete DVEs that you no longer need.

To create a DVE:

1. Select Object > Create DVE.

   A rectangular object appears within the current container and covers the entire scene. The DVE object is automatically selected.

2. (Option) For most DVEs, you will want to enable lighting for the surfaces of the object to enhance the three-dimensional appearance of these objects. For more information, see "Allowing Materials to Be Affected by Light Sources" on page 463.

3. Change the material on the Main (front) and Background (back) surfaces. The Edge and Extrude surfaces are not used for DVE objects.

To delete a DVE:

1. Select the DVE object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. Press the Delete key.

Editing DVEs

DVE objects have properties common to all DVE types, as well as properties specific to the effect being used.

To edit the properties of a DVE:

1. Select the DVE object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the DVE Properties window is not already open, select Window > Properties > DVE.

3. To change the effect, select the effect from the Effect list.

   For more information, see the table following this procedure.

   A list of effect-specific properties appears in the recessed area next to the Effect list.

4. To deform the surface of the DVE, use a displacement map.

   For more information, see “Simulating Textured Surfaces Using Displacement Maps” on page 382.

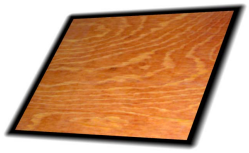
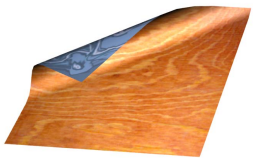
5. To adjust the quality of the DVE, increase or decrease its detail.

   For more information, see “Controlling the Detail of DVEs” on page 383.

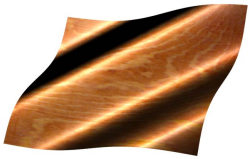
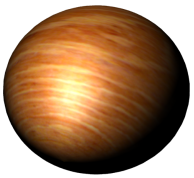
6. Adjust the effect-specific properties.

   For more information, see “Adjusting DVE-Specific Properties” on page 384.

Digital Video Effects

Effect	Sample	Description
Border		This effect places a colored frame around the image. The border can have a soft outer edge. Unlike the Border edge effect (which cannot be used on DVE objects), the border in a Border DVE overlaps the edges of the image. For more information, see “Border DVE” on page 385.
Default		This effect creates a rectangular surface. This is the default DVE.
Page Curl		This effect curls the surface as if it were a page of a book being turned, showing the back surface on the opposite side. You can control the tightness and angle of the curl. For more information, see “Page Curl DVE” on page 386.

Digital Video Effects (Continued)

Effect	Sample	Description
Ripple		This effect produces parallel waves across the surface. You can control the height, number, and direction of the waves. For more information, see "Ripple DVE" on page 387.
Sphere		This effect produces cylindrical and spherical surfaces. You can control the horizontal and vertical curvature to produce different results. For more information, see "Sphere DVE" on page 388.

Simulating Textured Surfaces Using Displacement Maps

In addition to deforming an object produced by a DVE, you can use a texture to define convex and concave regions on the surface of the object. The luminance values of the color in the texture (the alpha channel is ignored) define the convex (raised) and concave (lowered) regions on the surface.

You cannot use a displacement map on the Border DVE.

To use a displacement map on a DVE:

1. Select the DVE object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.

3. In the Surfaces Properties window, make sure that Main is selected in the Surface list and that "Enable surface" is selected, and then select "Enable lighting."

4. If the DVE Properties window is not already open, select Window > Properties > DVE.

5. In the Displacement area of the DVE Properties window, adjust the following controls:
   - *Texture:* An image whose alpha channel or grayscale version defines the contour on the surface. Drag a texture definition representing the image from the Textures Library window onto the Texture drop pocket.

     Lighter areas simulate bumps or convex regions, whereas darker areas simulate valleys or concave regions.
   - *Scale:* The magnitude of the displacement.

     Higher scale values produce larger, exaggerated bumps and valleys, whereas lower scale values produce smaller, subtle bumps and valleys.
   - *Offset:* The grayscale level in the texture that represents no displacement of the surface.
   - *Softness:* The smoothness of the surface. You can soften a displacement map to hide irregularities in grayscale levels in the texture.

     Higher softness values produce a more subtle surface, whereas lower softness values produce a more coarse surface.
6. To adjust the detail of the DVE's appearance, adjust the Detail values.

   For more information, see "Controlling the Detail of DVEs" on page 383.

To remove a displacement map from a DVE:

1. Select the DVE object.

   For more information, see "Selecting and Deselecting Objects" on page 280.
2. In the Displacement area of the DVE Properties window , click the Reset button for the Texture drop pocket.

Controlling the Detail of DVEs

A DVE usually deforms a surface. For some deformations, such as page curls or spheres, the smoothness or detail of the deformation can be adjusted. This level of detail affects the visual quality of the DVE. If you are using a displacement map, you will want to increase the detail of the DVE object.

To control the detail of a DVE:

1. Select the DVE object.

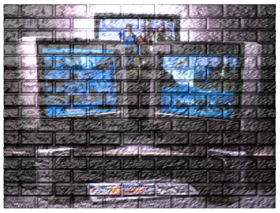
   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the DVE Properties window is not already open, select Window > Properties > DVE.

3. In the Detail area of the DVE Properties window, adjust the X (horizontal) detail and Y (vertical) detail.

   Lower values produce a less accurate appearance, but rendering time is faster. Higher values produce a more accurate appearance, but rendering time is slower.

Low detail levels



High detail levels

Adjusting DVE-Specific Properties

Each DVE has special controls that affect its appearance. These controls are available as DVE-specific properties.

The following DVEs have DVE-specific properties:

- Border DVE
- Page Curl DVE
- Ripple DVE
- Sphere DVE

Border DVE

The Border DVE has the following properties:

- *Size:* The thickness of the border.
- *Softness:* The softness of the outer edge of the border. A value of 0 produces a hard edge.
- *Color:* The color of the border.

The following table shows examples of typical Border DVE effects.

Border DVE Examples

Example	Size	Softness	Color
	2.50	0.00	Black
	10.00	50.00	Brown

Page Curl DVE

The Page Curl DVE has the following properties:

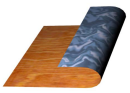
- *Radius:* The size of the curl. Smaller values produce tighter curls, whereas larger values produce looser curls.

The surface cannot curl around itself. The closest the surface can be is parallel to itself.

- *Angle:* The direction that the surface will turn or flip across the surface.
- *Curl time:* The position of the curl as it moves across the surface. Animate this property to curl the surface completely off.

The following table shows examples of typical Page Curl DVE effects.

Page Curl DVE Examples

Example	Radius	Angle	Curl Time
	0.10	0.00	0.40
	0.25	30.00	0.45
	0.02	–75.00	0.30

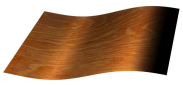
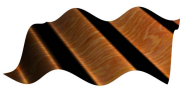
Ripple DVE

The Ripple DVE has the following properties:

- *Amplitude:* The height of the waves in the ripple.
- *Angle:* The direction that the ripples move across the surface.
- *Ripple time:* The moment when the ripples move across the surface. Animate this property to produce a rolling motion.
- *Frequency:* The number of ripples on the surface.

The following table shows examples of typical Ripple DVE effects.

Ripple DVE Examples

Example	Amplitude	Angle	Ripple Time	Frequency
	0.10	0.00	0.00	1.00
	0.10	0.00	0.45	1.00
	0.15	30.00	0.45	2.50

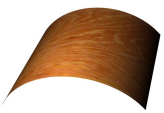
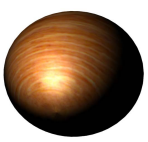
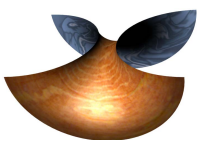
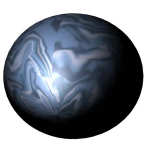
Sphere DVE

The Sphere DVE has the following properties:

- *Angle:* The horizontal curvature of the surface.
- *Distortion:* The vertical curvature of the surface.

The following table shows examples of typical Sphere DVE effects.

Sphere DVE Examples

Example	Angle	Distortion
	120.00	0.00
	360.00	0.00
	360.00	–0.40
	360.00	1.00
	–180.00	1.00
	–360.00	–1.00

Chapter 11
Working with Decks and Pages

This chapter describes how you put text and graphics into containers or pages so that you can cycle through them, as in a slide show.

This chapter includes the following sections:

Understanding Decks and Pages

A page object is a container for other types of objects. You use page objects to create transitions between different objects or collections of objects. For example, use page objects to cycle through several sports box scores. You can also use pages to encapsulate or group objects for easier placement in the scene or to create hierarchical behaviors, such as an object rotating in a page that also rotates. A collection or sequence of pages is a deck.

A deck object defines the position, size, and overall duration of the pages within it. Each page within the deck exists for a specific part of the overall duration. You can create gaps between pages to let the objects in lower tracks show through.

Creating and Deleting Decks

You create decks of pages with the Page tool.

To create a deck:

1. Click the Page tool.
2. Drag between two opposite corners of the intended page size and location.

To select a deck with the Page tool, either click in the deck in the Monitor window or click the deck's track in the Timeline window.

The new deck object contains a single page that spans the duration of the deck. While in the Page tool, the current deck appears with a red outline, whereas other decks in the scene appear with a dashed white outline.

To delete a deck:

1. Click the Edit tool, and then click along the deck's border to select it.

   If necessary, view construction lines to see the borders of a deck. For more information, see "Showing Construction Lines" on page 270.
2. Press the Delete key.

Adding and Removing Pages

You add and remove pages with the Page tool. Before you can add a page, you must first create a deck. For more information on creating a deck, see "Creating and Deleting Decks" on page 390.

Adding Pages to Decks

You can add a page before or after a page in a deck, as well as within a gap between pages.

To add a page before or after a page in a deck:

1. Click the Page tool.
2. Do one of the following:
   - To add a page from the Monitor window, move the position indicator to anywhere within the existing page's duration.
   -  To add a page from the Timeline window, click the Expand button for the deck to view the deck's pages.

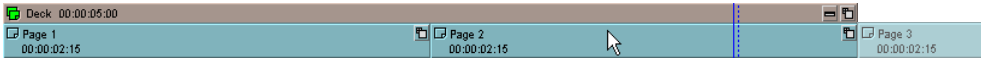
3. Right-click (Windows) or Ctrl+click (Macintosh) above the existing page object (either in the Monitor or Timeline window), and select Add Page Before or Add Page After.

The new page has the same duration as the existing page. Also, the contents and animations of the existing page are duplicated in the new page to make it easier for you to create similar pages.

If you insert the new page into a gap, none of the existing pages' timings are affected. Otherwise, the timing of existing pages changes (page durations are scaled). First, the new page is inserted. The deck's contents temporarily extend beyond the end of the deck. Second, the deck's contents are scaled down to fit within the deck's duration.

Scaling the page durations in this manner preserves the relative durations of all the pages in the deck.

Before adding a page after Page 2



New page (same duration as Page 2) extends beyond the deck.
(This illustration shows an intermediate step. You never see this step.)

Deck's contents are scaled to fit within the deck's duration.

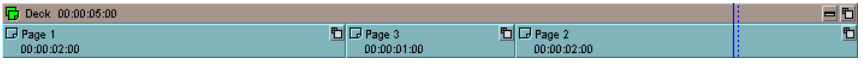
If you add the page from the Monitor window, the position indicator moves to the start of the new page automatically.

To add a page within a gap between pages:

1. Click the Page tool.

2. In the Timeline window, click the Expand button for the deck to view the deck's pages.
3. Right-click (Windows) or Ctrl+click (Macintosh) above the gap, and select Add Page in Gap.

Before (gap between Page 1 and Page 2)



After (page inserted within gap)

Removing Pages from Decks

You can remove a page from a deck, closing or leaving the gap left by the page. As with adding pages, you can remove pages from the Monitor or Timeline window.

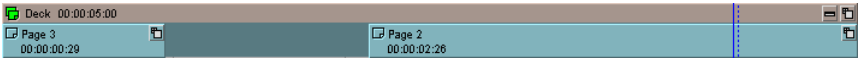
To remove a page from a deck and close the gap:

1. Click the Page tool.
2. Do one of the following:
   - To delete a page from the Monitor window, move the position indicator to anywhere within the page's duration.

   - To delete a page from the Timeline window, click the Expand button for the deck to view the deck's pages.
3. Right-click (Windows) or Ctrl+click (Macintosh) above the page object, and select Extract Page.

   The selected page is removed. The rotation of the pages and gaps in the deck are scaled equally until the gap left by the selected page is filled.

Before (three pages and a gap)



After extracting Page 1 (Gap left by Page 1 is closed.)

To remove a page from a deck and leave the gap:

1. Click the Page tool.

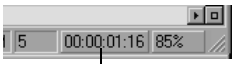
2. In the Timeline window, click the Expand button for the deck to view the deck's pages.
3. Right-click (Windows) or Ctrl+click (Macintosh) above the page's track, and select Lift Page.

   The selected page is removed. The rotation of the pages and gaps in the deck are not affected.

Before (three pages and a gap)

After lifting Page 1 (Gap left by Page 1 is not closed.)

Moving Between Pages



Time Display button

Click a page in the Timeline window to move the position indicator to the start of that page.

When you need to create objects in a page or to view a page in a deck, move to the page by changing the current time.

To move between pages of a deck, do one of the following:

- Click the Time Display button in the lower right corner of the Monitor window and drag left or right.
- Move the position indicator in the Timeline window.
- Click the Go to Previous Edit or Go to Next Edit button in the Timeline window.

  The Go to Previous Edit and Go to Next Edit buttons move between pages of a deck only if the pages are visible in the Timeline window.

A page is a container just like the scene, so objects within a page exist for the duration of its page. If you intend to animate those objects' properties over the duration of their page, be sure to move to the start or end of the page's duration to set the starting and ending points for the animation.

Adding Objects to Pages

When you need to add objects to a page, either create them within the page's dimensions directly or copy or move them from another page. You can also move deck objects within other page objects.

An object is not considered to be in a page unless the upper-left corner of its bounding box lies within the dimensions of the page. If you find that an object is not moving along with its page, you must move the object to the page.

To copy or move an object between pages:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.
2. Select Edit > Copy (to copy the object) or Edit > Cut (to move the object).
3. Click in the page on which you want to place the object.
4. Select Edit > Paste.

Objects you copy or move between pages retain their locations, sizes, and orientations. They are now simply part of a different container.

You can create hierarchical behaviors by placing a deck in a page of another deck (by cutting or copying the deck into the page of another deck). For example, a shape can be rotating in a page of a deck as the deck is also rotating.

Editing Objects Within Pages

You edit a page's objects as you would any other object in the Monitor window. You might need to move to the page's position in time or zoom in to make it easier to edit objects. For more information on zooming in the Monitor window, see "Panning and Zooming" on page 258.

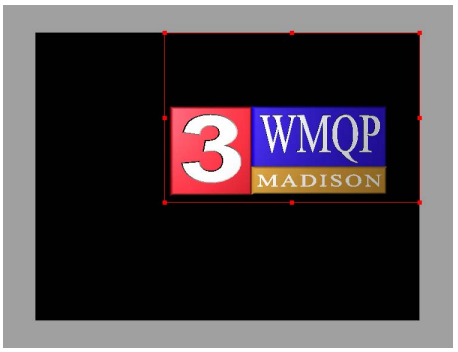
Resizing Decks

When you want to resize a page, you modify the dimensions of the page's deck. All pages in the deck use the same dimensions. You can resize a deck in one of three ways:

- Resize the deck and scale its contents
- Resize the deck adjusting the position of the contents without scaling them
- Resize the deck without scaling or repositioning the contents (contents stay in the same location relative to the scene)

The following illustration shows these options.

Before resizing — deck is the full size of the scene



After resizing and scaling — object scales along with deck

After resizing without scaling but with position adjustment — object changes position in relation to the deck but does not change size

After resizing without scaling or position adjustment — deck's dimensions change but object maintains same size and position in the scene

To scale a deck and its contents:

1. Click the Edit tool, and then click along the deck's border to select it.

   If necessary, view construction lines to see the borders of a deck. For more information, see "Showing Construction Lines" on page 270.

2. Alt+drag (Windows) or Option+drag (Macintosh) one of the deck's bounding-box handles.

   The deck and all pages within it change to the new dimensions.

To resize a deck, repositioning the deck's contents without resizing them:

1. Click the Edit tool, and then click along the deck's border to select it.

   If necessary, view construction lines to see the borders of a deck. For more information, see "Showing Construction Lines" on page 270.

2. Drag one of the deck's bounding-box handles.

   The deck changes to the new dimensions. The contents do not change size but do change position in relation to the resized deck.

To resize a deck without resizing or repositioning the deck's contents:

1. Click the Edit tool, and then click along the deck's border to select it.

   If necessary, view construction lines to see the borders of a deck. For more information, see "Showing Construction Lines" on page 270.

2. Ctrl+drag (Windows) or ⌘+drag (Macintosh) one of the deck's bounding-box handles.

   The deck changes to the new dimensions while the contents remain the same size and remain in the same location within the scene.

Rearranging Pages in Time

Each page within a deck exists for a portion of the overall duration of the deck. You can rearrange pages before or after other pages in the Timeline window.

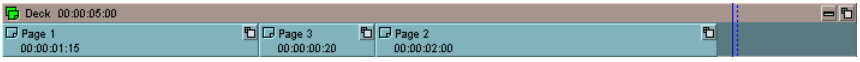
To rearrange a page's position within its deck:

1. In the Timeline window, click the Expand button for the deck to view the deck's pages.

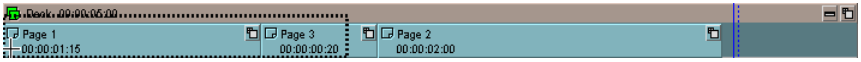
2. Drag the page to its intended position within the deck.

   As you drag the page, the pointer changes into a crosshair above the locations in the deck where you can drop the page.

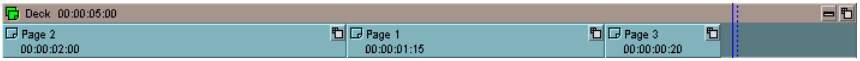
Before moving Page 2



After moving Page 2 toward the gap



While dragging Page 2 before Page 1 (Crosshair pointer indicates that you can drop the page at this location.)



After dragging Page 2 before Page 1

Changing Page Durations

As you can do with other objects, you can adjust the starting and ending times and duration of pages. The only difference is that the total duration of all pages and gaps within a deck is limited by the deck's duration.

To adjust the edit (transition) point between adjoining pages in a deck:

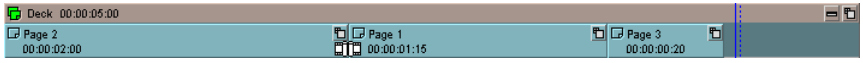
1. In the Timeline window, click the Expand button for the deck to view the deck's pages.

2. Move the pointer between adjoining page tracks.

   The pointer changes to double trim rollers.

3. Drag either left or right to adjust the edit point.

The ending time of the page to the left of the transition point and the starting time of the page to the right of the transition point change accordingly.



Before (Page 2 is longer than Page 1.)

After (Page 1 is now longer than Page 2.)

To adjust either the starting or ending times of a page:

1. In the Timeline window, click the Expand button for the deck to view the deck's pages.
2. Do one of the following:

- To adjust the starting point of a page, move the pointer to the left edge of the page's track.

  The pointer changes to a left-pointing trim roller.

- To adjust the ending point of a page, move the pointer to the right edge of the page's track.

  The pointer changes to a right-pointing trim roller.

3. Drag the edge to the left or right.

   The selected page's duration adjusts accordingly.

Before (Page 2 begins at the same time as the deck.)

After (Page 2 starts after the beginning of the deck.)

To set all pages in a deck to the same duration:

- Right-click (Windows) or Ctrl+click (Macintosh) above any point in the deck track, and select Balance Durations.

  All gaps are removed and all pages are set to the same duration.

Before (Pages have different durations; gaps exist.)

After (Pages have the same duration; gaps do not exist.)

Renumbering Pages

After you add pages or move pages around in a deck, page numbers might no longer be sequential. You can easily renumber the pages sequentially.

To renumber the pages in a deck:

1. Click the Page tool.

2. (Option) In the Timeline window, click the deck's Expand button to view the deck's pages.
3. Right-click (Windows) or Ctrl+click (Macintosh) above the deck's track or any of the deck's pages, and select Renumber Pages.

The pages in the selected deck are numbered "Page 1," "Page 2," and so on. The contents of the pages are not rearranged.

Before (Pages are numbered 2, 1, and 3.)

After renumbering pages

Clipping the Contents of Pages

By default, the objects you place in a page of a deck can appear anywhere in the scene; the page is simply a container for the objects. However, you can restrict the appearance of objects in the pages of a deck to the deck's dimensions. You can use this feature to produce objects that fly across a scaled-down page in the scene but do not fly across the rest of the scene.

To enable or disable clipping of objects to the dimensions of their deck:

1. Click the Page tool.
2. Right-click (Windows) or Ctrl+click (Macintosh) above the deck, and select Clip to Page.

   All pages of the deck are clipped or not clipped accordingly.

Due to a limitation in OpenGL, nested decks or text boxes that are set to be clipped and overlap the edges of their container decks will not always be clipped. Only the contents of the "deepest" nested deck will be clipped properly. This problem does not appear if the nested decks or text boxes do not overlap the edges of their container decks.

Chapter 12
Working with Layers

This chapter describes how you create and modify containers that control how objects interact. You can create two-dimensional or three-dimensional containers.

This chapter covers the following topics:

Understanding Layers

A layer is a container for all other objects in a scene. You can use layers to separate simple title effects from complex three-dimensional animation effects. The following types of layers are available:

- *2D layer:* This type of layer does not allow objects to intersect each other (that is, each object exists at a different position along the Z axis). The stacking order of objects in the Timeline window controls which objects are drawn above other objects. By default, all new titles contain a 2D layer into which you create objects.

  You can extrude, rotate, and group objects in a 2D layer. However, an extruded or grouped object will not “cut into” objects above or below it.

- *3D layer:* This type of layer allows objects to move around in three-dimensional space and intersect each other. The position of objects along the Z axis controls which objects are drawn above other objects. However, the stacking order of objects in the Timeline window has an effect on overlap effects and shadows.

  New objects that you create in a 3D layer appear at a Z axis position of 0. You have to move the object along the Z axis.

Use 2D layers for text and graphics that do not need to intersect each other. If you want several objects to retain their relative positions (one object being above another object) as you rotate the objects in tandem, place the objects in a 3D layer. Otherwise, the objects will rotate independently and will not appear realistic.

The scene, the topmost container object, contains lights and any number of layer objects, each of which contains other types of objects (text boxes, shapes, decks). You cannot create a layer inside another layer. Also, layers are the same size as the scene and exist for the duration of the title.

Working in the Layers Window

The Layers window shows you a hierarchical view of the layers in a title and provides commands to select, create, delete, and modify layers. For an introduction to the Layers window, with procedures for opening and closing the window, see "Layers Window" on page 193.

Creating and Deleting Layers

You can add a layer to a title to isolate the interaction of certain objects or to create a specific effect that you cannot achieve in an existing layer. You can remove layers that you no longer need.

To add a layer in the Layers window:

- Right-click (Windows) or Ctrl+click (Macintosh) the layer above which the new layer will be added, and select New > 2D Layer or New > 3D Layer.

  The new layer becomes the active layer.

To remove a layer in the Layers window:

- Right-click (Windows) or Ctrl+click (Macintosh) the layer you want to remove, and select Delete.

  The objects in the selected layer are also removed.

If you remove all objects in a layer, the layer is not automatically removed. Layers, like text boxes and pages, are containers that can be empty.

Rearranging Layers

Each layer of objects is drawn from bottom to top in the Layers window. By arranging the order of layers in this window, you can control how layers of objects are composited.

To arrange a layer, do one of the following:

- Drag the layer vertically within the Layers window.
- Right-click (Windows) or Ctrl+click (Macintosh) the layer, and select Move > *type of move*.

You cannot move a layer within another layer.

Hiding and Showing Layers

As you can do with other objects, you can hide and show layers of objects to concentrate on or draw only specific parts of the scene.

To hide or show a single layer:

Not muted 
Muted 

- Click the Mute icon for the layer.

Marquee does not draw the objects in hidden layers.

To show a single layer at a time:

Not soloed 
Soloed 

- Click the Solo icon for the layer. You can select multiple layers to solo.

If you both mute and solo a layer, the layer is soloed.

To show all layers:

- Select Object > Unhide All.

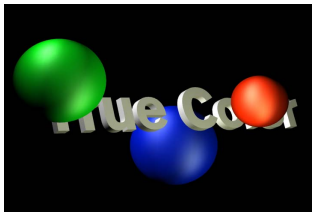
Changing the Type of a Layer

A layer can be 2D or 3D. You can change the layer's type at any time.

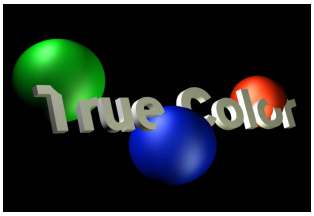
When you change a layer between types, objects may be positioned differently.

To change a layer's type:

- Right-click (Windows) or Ctrl+click (Macintosh) the layer in the Layers window, and select Layer Type > 2D or Layer Type > 3D.



2D Layer



3D Layer

Renaming Layers and Objects

By default, each layer has a generic name. You can rename each layer to help identify the objects within it. For example, use the name "Logo Animation" for a 3D layer that has an animated corporate logo. You can also rename any individual object in the Layers window (the equivalent of renaming the object by typing in the Name text box in the Info Properties window).

To rename a layer or object:

1. Do one of the following:
   - Right-click (Windows) or Ctrl+click (Macintosh) the layer or object, and select Rename.
   - (Windows) Click the layer or object in the Layers window, and then click it a second time.
   - (Macintosh) Click the layer or object name in the Layers window, and wait a moment until the name becomes editable.

You can now edit the name.

2. Type a new name for the layer or object, and then press Enter (Windows) or Return (Macintosh).

Manipulating Objects in Layers

You manipulate objects in layers in ways similar to the ways you manipulate objects in any other type of container. You can select layers and objects within layers. You can also copy and move objects between layers.

Selecting a Layer to Be the Current Layer

Although you can create multiple layers in a scene, only one layer is active (current) at a time. Objects that you create or paste appear in the current layer. You need to be aware of the current layer when you work in a title so that you do not create objects in the wrong layer.

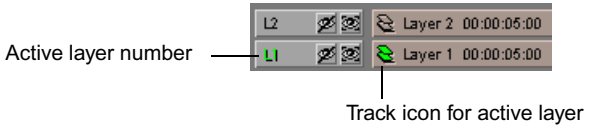
To make a layer the current layer, do one of the following:

- (Windows) Click the layer icon or name in the Layers window.
- (Macintosh) Click the layer icon in the Layers window.
- Click the layer's track in the Timeline window.
- Click an object in the layer in the Monitor, Timeline, or Layers window.

The current layer is identified in several ways:

- By name in the status bar of the Monitor window

- With a green layer number and track icon in the Timeline window



- In bold letters (Windows) or with a background highlight (Macintosh) in the Layers window

Selecting Objects in Layers

You need to select objects to perform operations on them. Objects that you select in the Monitor window or Timeline window are also selected in the Layers window.

You cannot select objects in different layers at the same time.

To select a single object in the Layers window:

- Click the object.

To select a range of objects in the Layers window:

- Click the first object in the range, and then Shift+click the last object in the range.

To switch the selection of an object in the Layers window:

- Ctrl+click (Windows) or ⌘+click (Macintosh) the object.

When you select objects in different layers in the Scene view of the Monitor window, the current layer changes to the selected object's layer. When you deselect all objects in a layer, the object's layer stays the current layer.

Copying and Moving Objects Between Layers

Each object exists within its own layers. Moving an object to the front or back (using the Bring to Front or Send to Back commands) does not move an object outside its layer.

To copy an object to another layer:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:
   - Select Edit > Copy.
   - Right-click (Windows) or Ctrl+click (Macintosh) in the Layers window, and select Copy.
3. In the Layers window, click the layer to which you want to copy the selected object.
4. Do one of the following:
   - Select Edit > Paste.
   - Right-click (Windows) or Ctrl+click (Macintosh) in the Layers window, and select Paste.

To move an object between layers, do one of the following:

- Use the Cut and Paste commands from the Edit menu or from the shortcut menu in the Layers window.
- Drag the object between layers in the Layers window.

The pasted object becomes the topmost object in the current container.

Rearranging Objects Within a Layer

You can rearrange objects within a layer inside the Layers window. For example, you can change the stacking order of objects in a layer or move objects between decks (or between the pages of decks). For more information, see “Stacking Objects” on page 284.

Viewing Layers from Different Sides

When you are placing objects in a layer, the relative location of objects along the Z axis is difficult to determine in the Monitor window. By viewing the layer from different sides, you can manipulate objects to produce more accurate results.

To view a layer from different sides:

1. Click the layer or any object within the layer in the Layers window.

   The current layer's name appears bold.

2. Select a layer side view by doing one of the following:

   - Select View > Views > *layer side view.*
   - Use a keyboard shortcut.

   For more information, see the following table.

Layer Views

Layer Side View	Toolbar Button	Views Submenu Command (in the View menu)	Keyboard Shortcut
Left		Layer Left	Ctrl+ 4 (Windows) or Option+4 (Macintosh) (on the numeric keypad)
Front		Layer Front	Ctrl+2 (Windows) or Option+2 (Macintosh) (on the numeric keypad)
Right		Layer Right	Ctrl+6 (Windows) or Option+6 (Macintosh) (on the numeric keypad)
Top		Layer Top	Ctrl+8 (Windows) or Option+8 (Macintosh) (on the numeric keypad)

For information about viewing layers and the scene from different angles, see "Viewing the Scene from Different Angles" on page 260.

Chapter 13
Animating Object Properties

This chapter describes how you modify object properties — for example, the font size used by a block of text or the rotation of a shape — over time. Changing an object's properties over time produces animated behavior, giving life to static objects.

This chapter covers the following topics:

For information on controlling scrolling speed for text objects, see "Creating Rolling, Crawling, and Path Text" on page 350.

Understanding Animation Mode

Each object in a scene has certain properties that can be constant or can change (be animated) over time. A keyframe is a point in time where you specify a property's value. Marquee interpolates property values between keyframes to define movements and other changes to the behavior of objects. You can adjust an object's duration at any time, and, for containers like page and text objects, the objects within containers scale accordingly.

This document uses the term keyframe *to describe a point in time where you specify a property's value. This is the standard term in the video editing and animation industries. However, since Marquee is fully scalable in time, the point where a property's value changes is not necessarily on a frame boundary. For example, if you place a keyframe at the 1-second point on a title*

that has a default duration of 5 seconds, and then lengthen the entire title slightly, your keyframe will no longer be at the 1-second point and might not be on a frame boundary.

A change that you make to a property's value normally affects that property for the duration of the title. When you are in Animation mode, or when you are working in the Timeline window, a change that you make to a property's value affects that property only at the current point in time.

When you set different values for a property at two different points in time, Marquee interpolates or fills in the in-between values for that property, resulting in animation. If an object is set to be outside the top of the scene at one point in time, and in the center of the scene at another, the object will move down to the center as the title plays. If an object is set to be white at one point and blue at a second, its color will fade from white to blue over time.

You use the Animation Mode button (or its keyboard shortcut, the A key) to control whether you are animating when you make adjustments in the Monitor window or the Properties windows. Make sure that you *are* in Animation mode when you want to adjust a property at a specific point in time by manipulating the object in the Monitor window or by changing the objects's property values in the Monitor Window toolbar or in the Properties windows. Make sure that you *are not* in Animation mode when you are working in the Monitor window or the Properties windows and you want to adjust a property over the full duration of the title.

To enter Animation mode, do one of the following:

- Click the Animation Mode button.

  If the Animation Mode button is not visible, select View > Toolbox > Full.
- Press the A key.

This button changes to red to indicate that you are in Animation mode and that changes you make at the current time do not affect other settings made at other times in the title.

To leave Animation mode, do one of the following:

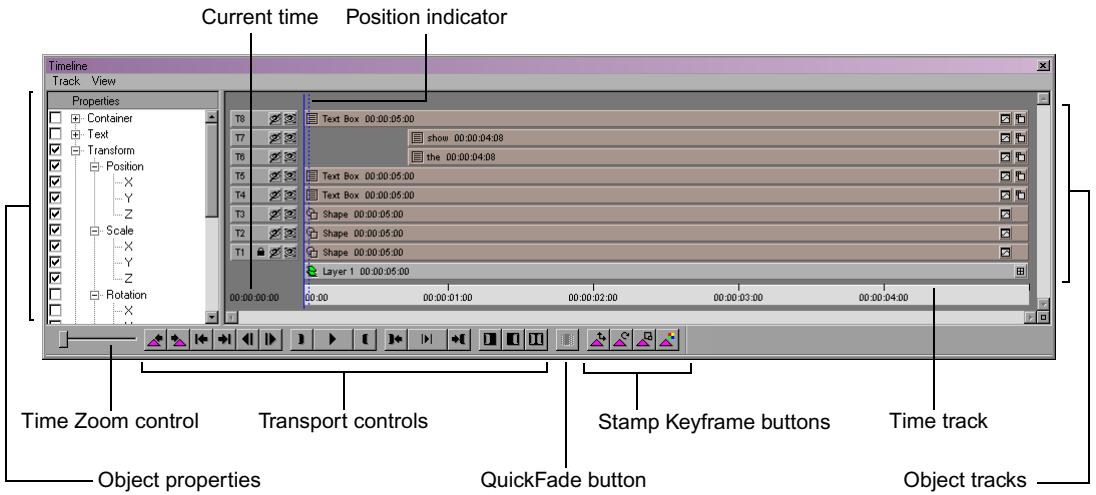
- Click the Animation Mode button.
- Press the A key.

Although you can work in Animation mode using the Monitor and Properties windows exclusively, use the Timeline window to see how properties are changing over time.

Working in the Timeline Window

The Timeline window shows you the relationships over time among objects in a scene. You can see and modify where various objects start and end in time, as well as how object properties change value over time. For an introduction to the Timeline window with procedures for opening and closing the window, see “Timeline Window” on page 196.

The following illustration shows the Timeline window.



In the main part of this window are the objects in your title, represented as horizontal bars or tracks. A scene is constructed of stacked tracks of objects. Objects in higher tracks appear in front of objects in lower tracks. The current container object appears as the second track from the bottom and is colored differently.

Below the object tracks is the Time track, which shows the duration of the entire title. The position indicator, the vertical blue line that appears above all the tracks, represents the position within the duration of the title that is currently displayed in the Monitor window. The dotted blue line (“shadow”) to

the right of the position indicator represents one frame later in time. For more information on how time is displayed, see "Understanding Time Display" on page 177. For information on changing the current time or changing how time is displayed, see "Moving Through Time" on page 262.

Near the bottom of this window are the Time Zoom control and Transport controls specific to the Timeline window. For more information on the Time Zoom control, see "Zooming the Timeline" on page 420. For more information on the Transport controls, see "Controlling Playback" on page 437.

Hiding and Showing Objects and Their Tracks

You can change the name displayed in each object's track.

Each object appears in its own track in the Timeline window. Objects in higher tracks appear closer than objects in lower tracks. To focus on specific objects in the Monitor window, you can hide or show objects from the Timeline window. To reduce the number of tracks that you see at any one time in the Timeline window, you can temporarily hide the tracks.

To hide or show a single track's object only:

- Click the Mute button for the track.

To view a single track's object only:

- Click the Solo button for the track. Click the button again to view all tracks' objects.

To hide a specific track from the Timeline window but not affect its object in the Monitor window:

1. Click the track you want to hide.
2. Do one of the following depending on your operating system:
   - (Windows) In the Timeline window, select Track > Hide Selected.
   - (Macintosh) Select Timeline > Track > Hide Selected.

To show all hidden tracks:

- (Windows) In the Timeline window, select Track > Show Hidden.
- (Macintosh) Select Timeline > Track > Show Hidden.

Selecting and Deselecting Object Tracks

Most operations you perform on objects require that they be selected in the Timeline window.

To select an object:

- Click the object's track.

To select a range or series of object tracks:

- Click an object's track, and then Shift+click another object's track.

To switch the selection of a single object or to select multiple objects:

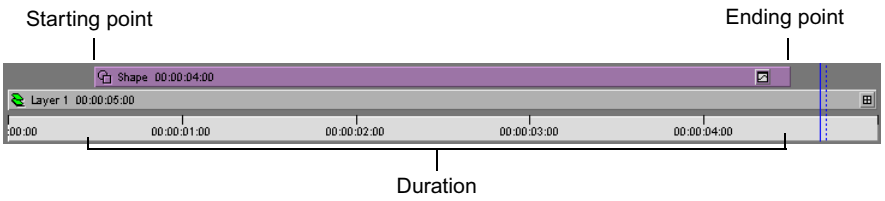
- Ctrl+click (Windows) or ⌘+click (Macintosh) an object's track.

To deselect all selected objects:

- Click away from an object's track.

Changing the Starting and Ending Points of Objects

An object's starting point is the moment in time when it first exists in the title. An object's ending point is the moment when it no longer exists in the title. The amount of time between the starting and ending points is the object's duration.



An object's duration is a measure of how long it exists over time relative to its container object. The top of the object hierarchy is the scene. The scene's duration is the title's duration, which is defined by the Duration value in the Title Preferences dialog box (for more information, see "Title Duration and Title Formats" on page 243). When you create an object, its duration is, by default, equal to its container's duration.

To change an object's starting or ending point:

You can select multiple objects to move their starting or ending points in tandem.

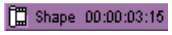
1. Select the object, either in the Monitor or Timeline window.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Timeline window is not already open, select Window > Timeline.

   The selected object appears highlighted in the Timeline window. You might need to scroll the Timeline window's contents vertically to see the object.

3. Do one of the following:

   - To adjust the starting point, drag the left end of the object.

     When you move the pointer near the left end of the object, it changes to a trim roller.

   - To adjust the ending point, drag the right end of the object.

     When you move the pointer near the left end of the object, it changes to a trim roller.

   The object's duration changes accordingly.

To change an object's starting and ending points without changing its duration:

1. Select the object, either in the Monitor or Timeline window.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Timeline window is not already open, select Window > Timeline.

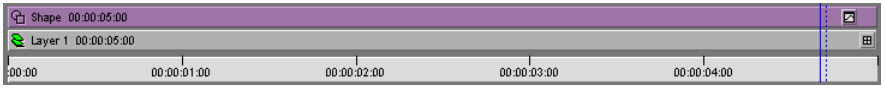
   The selected object appears highlighted in the Timeline window. You might need to scroll the Timeline window's contents vertically to see the object.

3. Drag the middle of the object in the Timeline window.

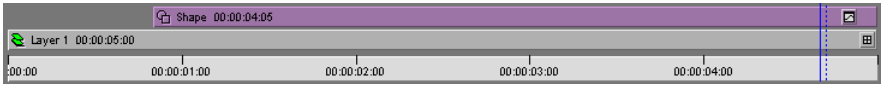
   

   When you begin the dragging operation by pressing the mouse button while the pointer is over the middle of the object, the pointer changes to a double-headed arrow.

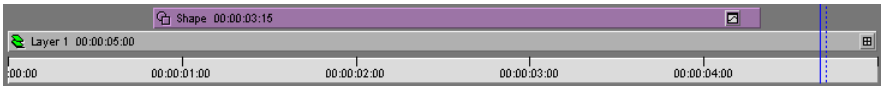
   The object's track snaps to frame boundaries as you drag the object or either of its ends.



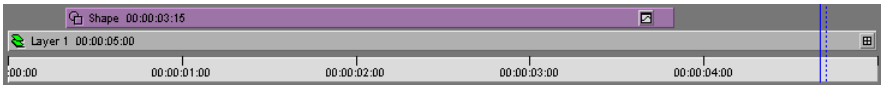
Before (Object has the same duration as the scene.)



After adjusting the starting point (Object begins later in time.)



After adjusting the ending point (Object ends earlier in time.)



After shifting the object in time (Object begins earlier in time again.)

For information on changing a page's starting or ending point, see "Changing Page Durations" on page 398.

Editing Subobjects in a Container Object

Certain types of objects act as a container for other objects. For example, a text object contains character objects, or a page object contains other types of objects, including other deck objects. You can access the subobjects within a container object from the Monitor, Timeline, and Layers windows. Each window has its own way of selecting subobjects.

Accessing Subobjects in the Monitor Window

In the Monitor window, you can access all objects in all visible pages.

To access a text object's subobjects (characters):

- Click the Text tool, and select the characters.

  For more information, see "Selecting and Deselecting Text" on page 332.

To access a page object's subobjects:

1. Make the page visible in the Monitor window by navigating in time to any point within the page's duration.

   For information on moving in time, see "Moving Through Time" on page 262.

2. Click the Edit tool, and Alt+click (Windows) or Option+click (Macintosh) the subobject.

To access a text box's subobjects (characters) or a group's subobjects (any other type of object):

- Click the Edit tool, and Alt+click (Windows) or Option+click (Macintosh) the subobject.

Accessing Subobjects in the Timeline Window

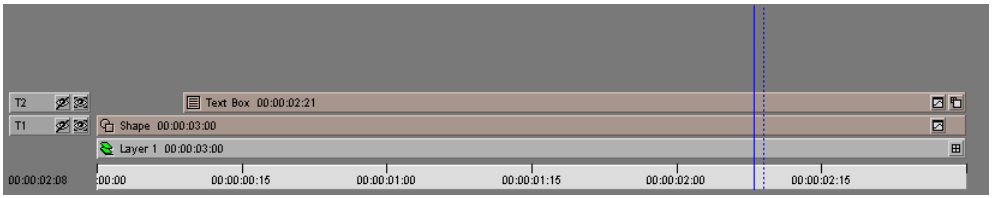
In the Timeline window, you can access all objects in the same container object. If one of these objects is a container for other objects, you can expand or zoom into the container to access its subobjects.

To access a container object's subobjects:

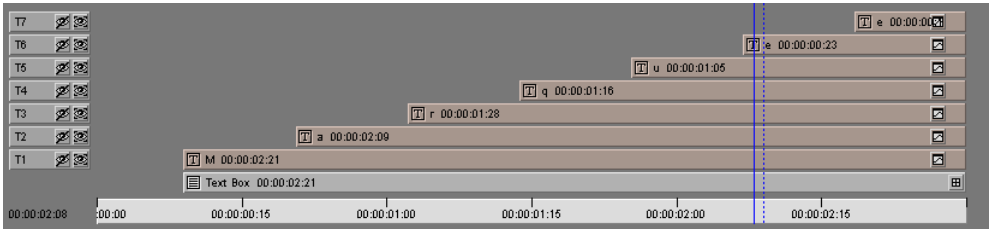
- Click the Expand button on the right side of the object's track.

The container's subobjects appear above it. You might need to use the vertical scroll bar to see all the subobjects.

To scroll the Timeline tracks without using the scroll bars, drag the tracks with the middle mouse button (if one exists).



Collapsed view



Expanded view

To hide the subobjects of a container, do one of the following:

- Click the Collapse button.
- (Windows) In the Timeline window, select View > Collapse.
- (Macintosh) Select Timeline > View > Collapse.

When you edit an object's subobjects, all other object tracks are temporarily hidden. This allows you to concentrate on the object's subobjects, which may be numerous, especially for text objects.

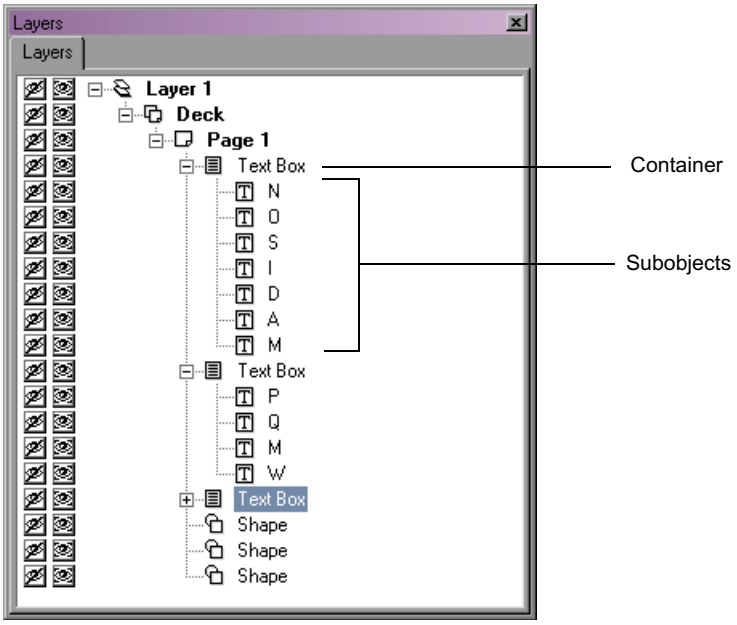
Accessing Subobjects in the Layers Window

In the Layers window, you can access all objects within the scene. If one of these objects is a container for other objects, you can expand the container to access its subobjects.

To access a container object's subobjects:

- Click the Plus Sign (+) icon (Windows) or the triangular opener (Macintosh) next to the container's name.

  The container's subobjects appear below it. You might need to use the vertical scroll bar to see all the subobjects.



To hide the subobjects of a container:

- Click the Minus Sign (–) icon (Windows) or the triangular opener (Macintosh) next to the container's name.

Zooming the Timeline

Using the Time Zoom control in the Timeline window, you can zoom in on or out from the tracks to see more or less detail.

To zoom in on a section of the Timeline at the position indicator:

- Drag the Time Zoom slider to the right.

  Zoom in for finer control of specific tracks or property curves.

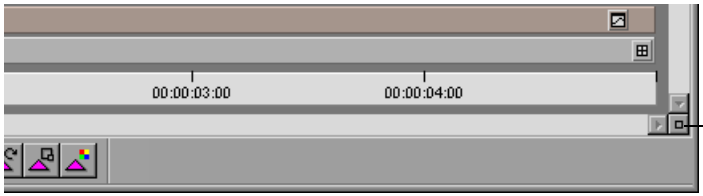
To zoom out from a section of the Timeline at the position indicator:

- Drag the Time Zoom slider to the left.

Zoom out for an overview of the tracks and their relative positions in time.

To view the entire title at a glance, do one of the following:

- Drag the Time Zoom slider all the way to the left.
- Click the Reset button in the lower-right corner of the Timeline window.



Animating Properties over Time

By default, object properties have the same value or setting throughout the object's duration. However, you can change the value or setting at different points over time to produce animated effects, such as a rectangle that moves across the frame or the characters in a word that spread farther apart as the characters increase in size.

For text along a path, you can define the behavior of the characters of text based on their positions along the path, instead of on their individual property curves. For more information, see "Controlling Object Properties Based on Path Position" on page 447.

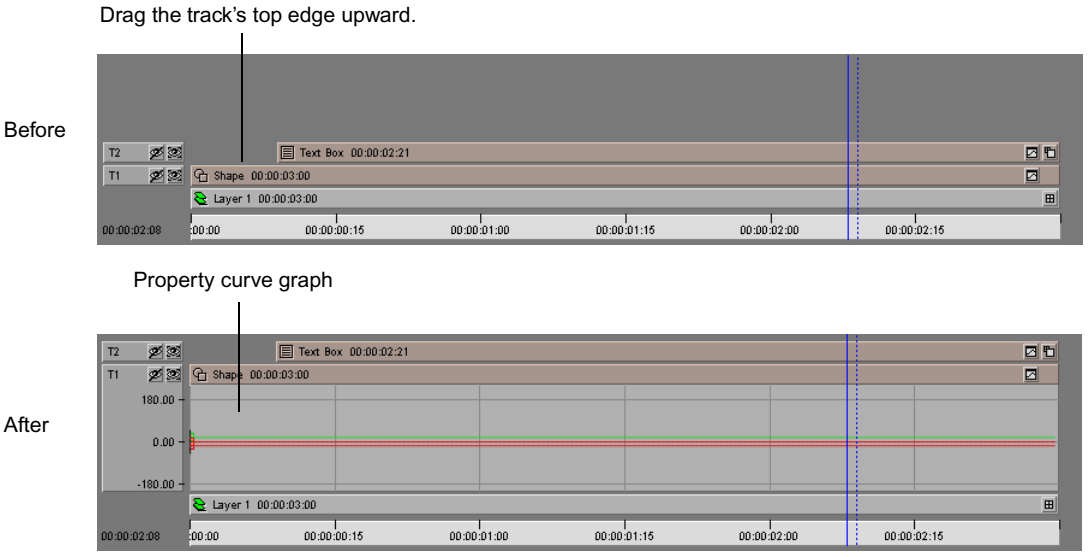
Viewing and Hiding the Property Curves of Objects

Object properties that you can animate appear as property curves in the Timeline window. These curves show the change in a property's value over time.

To view an object's property curves, do one of the following:

- Drag the top edge of the object's track upward.
-  Click the Show Curves button on the right side of the object's track.

  The object's property curves appear below the track's title bar, in an area known as the property curve graph.



To hide an object's property curves:

- Click the Hide Curves button on the right side of the object's track.

  Initially, with no properties selected in the Properties list, the property curve graph is empty.

Selecting Properties to Animate

The properties that you can animate appear in the Properties list on the left side of the Timeline window.

The properties in this list correspond to the properties in the various Properties windows and are organized into the same categories. For example, the X, Y, and Z Position properties appear within the Transform section of the Properties list just as they appear in the Transform Properties window.

You can animate as many or as few properties as you want in order to produce the effect you want.

To select an object property to animate:

1. If the Properties list is hidden, do one of the following depending on your operating system:

   - (Windows) In the Timeline window, select View > Properties List.

- (Macintosh) Select Timeline > View > Properties List.

2. If the property curves are not already visible, do one of the following:
   - Drag the top edge of the object's track upward.
   - Click the Show Curves button on the right side of the object's track.

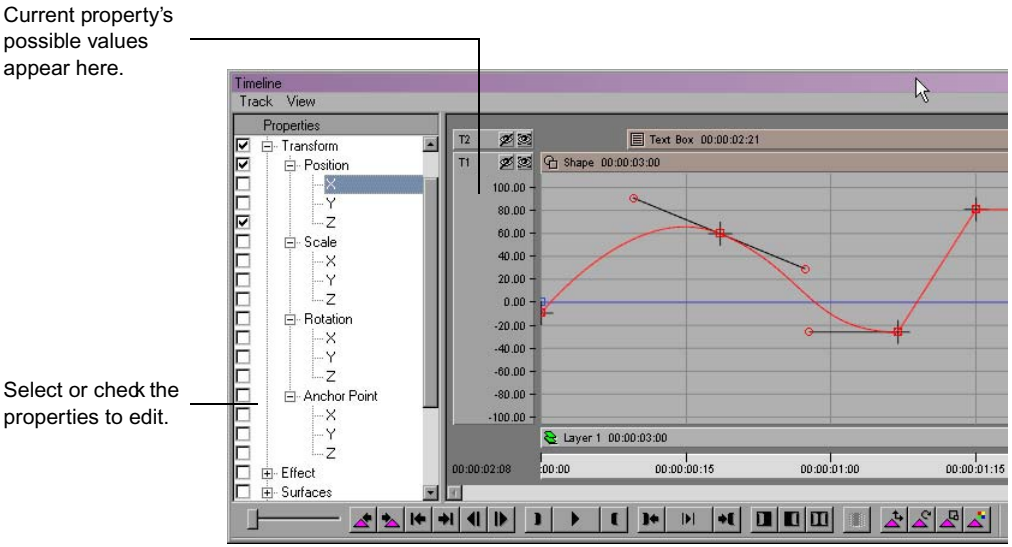
   The property curves for the object appear below the object track's title bar.
3. Select the property curve to animate by doing one of the following:
   - Click the name of the property in the Properties list on the left side of the Timeline window.

     The property curve for the selected property appears in the curve area.
   - Click the property's curve.

Display multiple property curves to help you synchronize changes between properties.

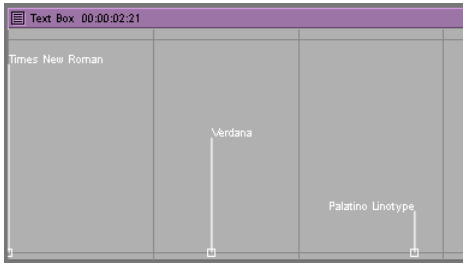
4. To view multiple property curves at the same time, select the properties by clicking the check box next to each property.

   A check mark appears next to properties whose curves appear in the curve graph. The selected (highlighted) property, whether identified with a check mark or not, also appears in the curve graph. If you are viewing multiple property curves, the selected (highlighted) property is the one you can edit.



For properties with values within a specific range, the range of values appears along the left side of the property curve.

Some properties, such as Font Name, Edge, and Texture Image, have user-definable values that cannot be expressed as a curve. For these properties, each change in value is represented by a vertical line or spike. Next to each spike is the value of the property at that point in time.



Property spikes

To scroll the viewable range of values:

1. Move the pointer above the object's property curve graph.
2. Press the Up Arrow or Down Arrow key.

To change the magnification (detail) of the range of values:

1. Move the pointer above the object's property curve graph.
2. Press Shift+Up Arrow or Shift+Down Arrow.

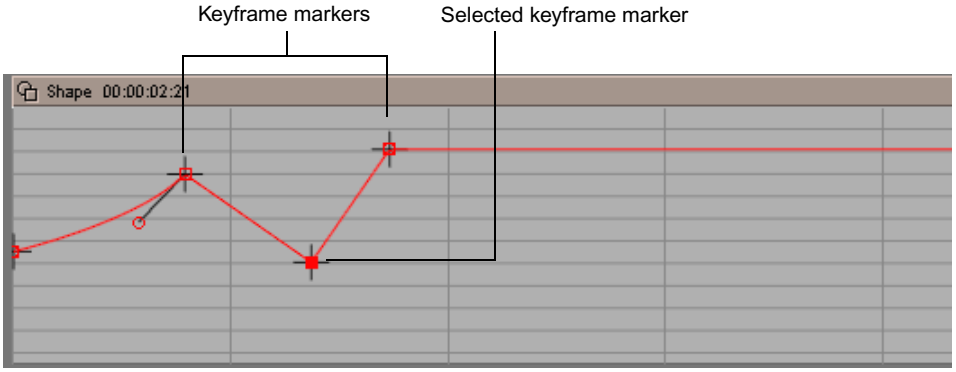
To reset the position and magnification of the property curve graph:

- Right-click (Windows) or Ctrl+click (Macintosh) the property curve graph, and select Reset Pan/Zoom.

Creating and Adjusting Keyframes

A keyframe is a point in time when a property's value is specified. By default, each property has a single keyframe at the beginning of its object's duration that describes its value. Keyframes appear as keyframe markers, points on the property curves. Each property has at least one keyframe marker or curve point.

A keyframe marker appears as a small square, similar to control points found on graphic objects, but with a small crosshair on it. A keyframe marker that is selected appears as a filled small square; a keyframe marker that is not selected appears as an unfilled small square.



Selecting and Deselecting Keyframe Markers

When you want to change the appearance of a property curve, you usually need to select one or more keyframe markers to modify them.

To select a keyframe marker:

- Click the keyframe marker.

To select multiple keyframe markers:

- Shift+click the keyframe markers.

To select all keyframe markers on the current property curve, do one of the following:

- Right-click (Windows) or Ctrl+click (Macintosh) the curve, and select Select All Keys.
- Press Ctrl+A (Windows) or ⌘+A (Macintosh).

To switch the selection of a keyframe marker:

- Ctrl+click (Windows) or ⌘+click (Macintosh) the keyframe marker.

To deselect all selected keyframe markers, do one of the following:

- Click away from a keyframe marker.
- Right-click (Windows) or Ctrl+click (Macintosh) anywhere in the curve graph, and select Deselect All Keys.

Editing Keyframe Markers

The location of keyframe markers on a property curve affects the appearance of the property curve and the way the property changes value over time. You can create, delete, and move keyframe markers to modify a property curve.

You can also create several related keyframes at once using the Stamp Keyframe buttons, and move or delete multiple keyframes at once using scripts. For more information, see "Creating Related Keyframes Using Stamp Keyframe Buttons" on page 427 and "Using Scripts to Move or Delete Multiple Keyframe Markers" on page 428.

To create a keyframe marker, do one of the following:

- Alt+click (Windows) or Option+click (Macintosh) at the intended time (horizontal axis) and value (vertical axis) on the property curve.
- Right-click (Windows) or Ctrl+click (Macintosh) at the intended time (horizontal axis) and value (vertical axis) on the curve, and select Insert Key.

You cannot directly create keyframe markers on property curves (such as Font Name) that represent their values using spikes.

To delete a keyframe marker, do one of the following:

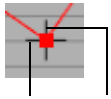
- Click the keyframe marker, and then press the Delete key.
- Right-click (Windows) or Ctrl+click (Macintosh) the keyframe marker, and select Delete Keys.

To move a keyframe marker:

- Drag the keyframe marker to the intended time or value.

To move a keyframe marker along frame and value intervals:

- Shift+drag the keyframe marker.



Keyframe marker handles

To change a keyframe marker's value but not its position in time:

- Drag the short vertical line crossing the keyframe marker.

To change a keyframe marker's time but not its value:

- Drag the short horizontal line crossing the keyframe marker.

The property curve adjusts accordingly. Some properties, such as those that have On and Off values, restrict the location of keyframe markers. As you move a keyframe marker, its time and value appear next to it.

Creating Related Keyframes Using Stamp Keyframe Buttons

Marquee includes four Stamp Keyframe buttons, located next to the Transport controls at the bottom of the Timeline window. You can use these buttons to quickly add a group of related keyframes. For example, you can use the Add X, Y, Z Position Keyframes button to add keyframes to the X, Y, and Z Position property curves in the Transform section at the current point in time.

To add a group of related keyframes using a Stamp Keyframe button:

1. Move the position indicator to the point in time where you want to add keyframes.
2. Click the appropriate Stamp Keyframe button.

   The following table describes the available buttons.

Stamp Keyframe Buttons

Button	Name	Description
	Add X, Y, Z Position Keyframes	Adds keyframes to the X, Y, and Z Position property curves at the current location of the position indicator.
	Add X, Y, Z Rotation Keyframes	Adds keyframes to the X, Y, and Z Rotation property curves at the current location of the position indicator.
	Add X, Y, Z Scale Keyframes	Adds keyframes to the X, Y, and Z Scale property curves at the current location of the position indicator.
	Add RGB Main Color Keyframes	Adds keyframes to the R, G, and B Main Color property curves at the current location of the position indicator.

Using Scripts to Move or Delete Multiple Keyframe Markers

You might want to move or delete multiple keyframe markers at the same time. For example, you might create a series of keyframes that control a particular movement and then decide that you want that movement to occur earlier or later in the title's duration.

The Marquee Scripts library includes the MoveKeys and DeleteKeys scripts, which allow you to select objects, mark IN and OUT points in the Timeline, and then either move all the keyframe markers for the selected objects within the marked region or delete all the keyframe markers.

For general information about scripts, see the chapter "Working with Scripts and the AutoTitler" on page 541.

To move multiple keyframe markers with the MoveKeys script:

1. Select the objects for which you want to move keyframe markers.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Timeline window is not already open, select Window > Timeline.
3. In the Timeline window, display the property curve graphs for the selected objects so that you can view the keyframe markers you want to move.

   For more information, see "Viewing and Hiding the Property Curves of Objects" on page 421.

4. Move the position indicator to a position before the first keyframe marker you want to move.
5.  Click the Mark IN button in the Transport controls to mark an IN point at the location of the position indicator.
6. Move the position indicator to a position after the last keyframe marker you want to move.
7.  Click the Mark OUT button in the Transport controls to mark an OUT point at the location of the position indicator.
8. In the Scripts Library window, double-click the MoveKeys script.

   A dialog box appears.

9. In the text box, type the number of frames by which you want to move the keyframe markers, and then click OK.

Positive numbers move the keyframe markers forward in time; negative numbers move the keyframe markers backward in time.

The MoveKeys script runs, and all the keyframe markers for the selected objects within the marked region move by the number of frames you specified.

To delete multiple keyframe markers with the DeleteKeys script:

1. Select the title objects for which you want to delete keyframe markers.

   For complete information on methods for selecting title objects, see "Selecting and Deselecting Objects" on page 280.

2. If the Timeline window is not already open, select Window > Timeline.
3. In the Timeline window, display the property curve graphs for the selected objects so that you can view the keyframe markers you want to delete.

   For more information, see "Viewing and Hiding the Property Curves of Objects" on page 421.

4. Move the position indicator to a position before the first keyframe marker you want to delete.
5.  Click the Mark IN button in the Transport controls to mark an IN point at the location of the position indicator.
6. Move the position indicator to a position after the last keyframe marker you want to delete.
7.  Click the Mark OUT button in the Transport controls to mark an OUT point at the location of the position indicator.
8. In the Scripts Library window, double-click the DeleteKeys script.

   The DeleteKeys script runs, and Marquee deletes all the keyframe markers for the selected objects within the marked region.

Changing Property Curves at Each Keyframe Marker

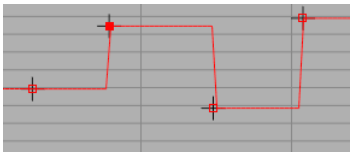
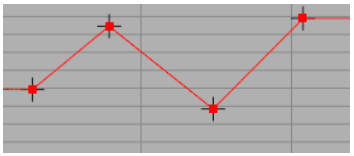
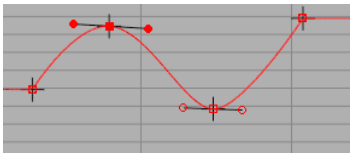
You have extensive control over how keyframe markers affect a property curve. Each keyframe marker has a curve type that affects the section of the property curve up to the next keyframe marker. Marquee supports Hold, Linear, Bézier, B-Spline, and Cardinal curve types. A new keyframe marker uses the same curve type as the keyframe marker to its left.

To set the curve type for a keyframe marker:

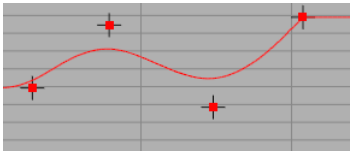
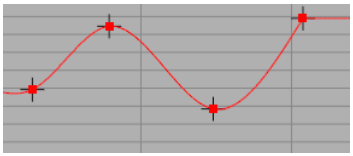
- Right-click (Windows) or Ctrl+click (Macintosh) a keyframe marker or the section of the curve to the right of a keyframe marker, and select Curve Type > *type of curve*.

  The following table describes the available curve types.

Curve Types for Keyframe Markers

Curve Type	Example	Description
Hold		The curve section stays horizontal at the same value as the current keyframe marker. Curve values are constant. Hold causes an object to maintain a single value (for example, a position) for a period of time and then jump abruptly to a new value at the location of the next keyframe.
Linear		The curve section is a straight line between the current and next keyframe markers. Values change at a constant rate.
Bézier		The curve passes through the keyframe marker but creates either a smooth or a sharp (corner) section of curve, depending on the length and orientation of the keyframe marker's direction handles. Values can change either gradually or drastically. Changes at one keyframe marker do not have an effect on other keyframe markers beyond adjoining keyframe markers. For more information on editing the direction handles, see "Adjusting the Direction Handles on Bézier Keyframe Markers" on page 431. Although you can set the Bézier curve type on individual keyframe markers, you need to set Bézier on at least three keyframe markers in a row to achieve the effect you want.

Curve Types for Keyframe Markers (Continued)

Curve Type	Example	Description
B-Spline		The curve is smooth but does not necessarily pass through the keyframe marker. Values change gradually. Changes at one keyframe marker might have an effect on other keyframe markers beyond adjoining keyframe markers. Although you can set the B-Spline curve type on individual keyframe markers, you need to set B-Spline on at least three keyframe markers in a row to achieve the effect you want.
Cardinal		Like Bézier, the curve passes through the keyframe marker smoothly. However, keyframe markers do not have direction handles. Values change gradually. Although you can set the Cardinal curve type on individual keyframe markers, you need to set Cardinal on at least three keyframe markers in a row to achieve the effect you want.

Adjusting the Direction Handles on Bézier Keyframe Markers

On Bézier keyframe markers, direction handles are available for you to control how the property curve passes through the keyframe marker. The property curve can be smooth or a corner (angled) at the keyframe marker.

To extend a direction handle away from a keyframe marker that does not show its handles:

- Alt+drag (Windows) or Option+drag (Macintosh) away from the keyframe marker.

To create a corner in the curve at the keyframe marker:

- Alt+drag (Windows) or Option+drag (Macintosh) one of the direction handles.

To create a smooth curve through the keyframe marker:

- Ctrl+drag (Windows) or ⌘+drag (Macintosh) one of the direction handles.

To extend only the length of a direction handle:

- Shift+drag the direction handle.

To shrink the direction handles to zero length (creating a corner):

- Right-click (Windows) or Ctrl+click (Macintosh) the keyframe marker, and select Make Cusp.

Creating Repeating Patterns

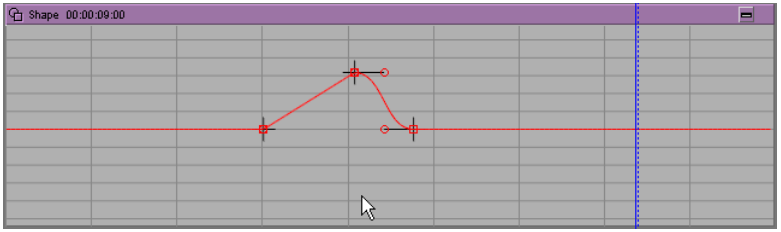
If you need to repeat the pattern created by the keyframe markers on a property curve for the duration of an object, you do not have to duplicate the keyframe markers and their curve types. Simply use the Repeat option. Repeating curves are useful for properties that simulate oscillating behavior, such as the scale property of a beating heart.

To repeat the pattern of a property curve:

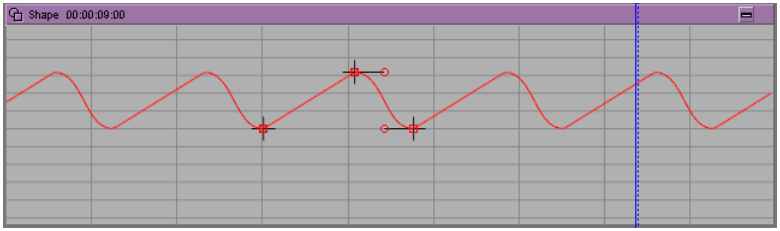
1. Create the pattern to repeat at the left side of the property curve. Make sure the rightmost keyframe marker is not at the right edge of the object's curve graph. The leftmost keyframe marker does not have to be at the left edge of the curve graph.
2. Right-click (Windows) or Ctrl+click (Macintosh) the property curve, and then select Repeat.

The pattern produced between the first and last keyframe marker is repeated before the first keyframe marker and after the last keyframe marker. When you modify one of the keyframe markers, the repeated pattern adjusts accordingly. The repeated section of the property curve appears with no keyframe markers.

Before — single pattern using three keyframe



After — the pattern is repeated across the whole of the curve



To remove the repeating pattern:

- Right-click (Windows) or Ctrl+click (Macintosh) the property curve, and then select Repeat again.

Copying and Pasting Curves

If you want to match the behavior of properties between objects (for example, making a shape and a word change color in the same way), copy the property curve's form.

To copy the current property curve's form:

- Right-click (Windows) or Ctrl+click (Macintosh) the curve, and then select Copy Curve.

To paste the last copied property curve onto an object's current property curve:

- Right-click (Windows) or Ctrl+click (Macintosh) the object's property graph, and then select Paste Curve.

When you copy and paste curves of different types (for example, copying the Font Name curve to the Opacity curve), the form of the curve is copied as closely as possible. However, the "target" property curve may change the copied curve's form due to differences in the curves' ranges of value.

Resetting Curves

If you need to restore the original form of one or more property curves to remove changes you made to an object's properties, use the Reset Current Curve or Reset All Curves command.

To reset the current property curve to its default form:

- Right-click (Windows) or Ctrl+click (Macintosh) the curve, and then select Reset Current Curve.

To reset all visible property curves for the current object to their default forms:

- Right-click (Windows) or Ctrl+click (Macintosh) the object's property graph, and then select Reset All Curves.

Smoothing Curve Segments

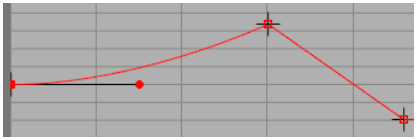
If a property changes value too drastically or unrealistically between keyframe markers, you can "ease" or soften the change before a keyframe marker, after a keyframe marker, or across the entire property curve. The curve's segment type must be Linear or Bézier.

To ease property values between keyframe markers:

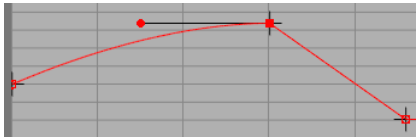
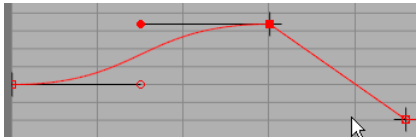
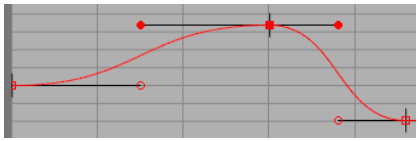
- Right-click (Windows) or Ctrl+click (Macintosh) the segment of a property curve between keyframe markers, and select Smooth > *curve form*.

  The following table describes the curve smoothness options.

Curve Smoothness Options

Smoothness	Example	Description
Ease In		The property curve gradually changes to the value associated with the keyframe marker to the right of the curve segment.

Curve Smoothness Options (Continued)

Smoothness	Example	Description
Ease Out		The property curve gradually changes from the value associated with the keyframe marker to the left of the curve segment.
Ease In and Out		The property curve gradually changes from the left keyframe marker's value and changes into the right keyframe marker's value.
Whole Curve		The entire property curve changes to have no drastic or sudden changes in value.

Flipping Curves

If you want to reverse the change of a property over time, such as reversing the scrolling of a roll or crawl or rotating an object in the opposite direction, you can flip the property curves instead of editing the keyframe markers manually.

To flip the current property curve:

- Right-click (Windows) or Ctrl+click (Macintosh) the curve, and select Flip Curve > Invert Values to flip the curve vertically or Flip Curve > Reverse Time to flip the curve horizontally.

You can use the Invert Values command only on property curves whose values can be a range of values, such as Font Size, Extrude Depth, or X Position.

Viewing Animated Properties

To preview the properties you have animated, you can view the title at a specific time, view the entire title, or view a specific duration of the title. You can play back the title or control playback by browsing through the title.

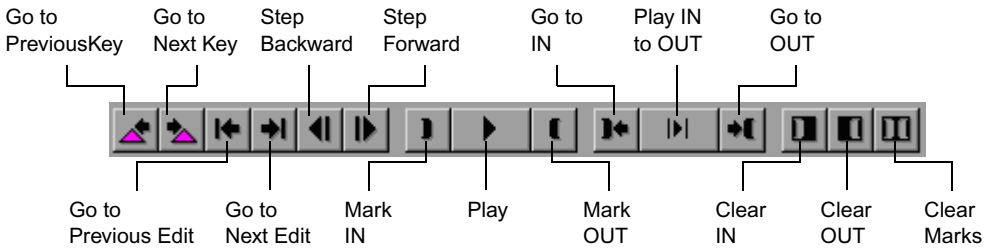
Viewing the Title at a Specific Time

To view the title at a specific point in time:

- Click at the intended location along the Time track (along the bottom of the Timeline window) at the intended time.

  The position indicator moves to that location in the Timeline and the scene in the Monitor window displays the title's objects at the selected time.

Along the bottom of the Timeline window are the Transport controls, a set of buttons that control where to place the position indicator and how to play back the animated properties in the title.



To view the previous or next frame of the title:

- Click the Step Backward or Step Forward button.

Shift+click the Step Backward or Step Forward button to move back or forward by one second.

To view the starting or ending point of the currently selected objects

- Click the Go to Previous Edit or Go to Next Edit button.

Shift+click the Go to Previous Edit or Go to Next Edit button to move to the start or end of the title.

For deck objects, these buttons move the position indicator among the pages of the deck. If the position indicator is at the starting point of an object, clicking the Go to Previous Edit button again moves the position indicator to the start of the title. Similarly, if the position indicator is at the ending point of an object, clicking the Go to Next Edit button moves the position indicator to the end of the title.

To view the title at specific keyframe marker positions:

- Use the Go to Previous Key and Go to Next Key buttons.

  These buttons move the position indicator to the previous or the next keyframe marker on the selected property's curve. These buttons examine the keyframe markers for all objects whose property curves are visible; if you are interested in moving between keyframe markers on a specific object, hide the property curves for all other objects.

To move to the previous or the next keyframe marker for a specific property in the Properties window:

1. Open the Properties window containing the property.
2. Right-click (Windows) or Ctrl+click (Macintosh) the property's control, and then select Go to Previous Key or Go to Next Key.

Controlling Playback

Play back your title to see how objects change over time. You can play back the entire duration or a specific section of a title.

You can also browse through your title by dragging in the Time track or by dragging the position indicator. For more information, see "Browsing Through Titles" on page 263.

To view the entire duration of the title once:

- Click the Play button.

  The scene plays from the current time to the end of the scene. The Play button changes to a Stop button. The handles (bounding boxes, control points, and rotation spheres) of selected objects are temporarily hidden during playback.

To continually view a specific section of the title:

1. Move the position indicator to the intended starting point.
2. 
   Click the Mark IN button.

   If you do not specify the IN point, playback begins at the start of the title.
3. Move the position indicator to the intended ending point.
4. 
   Click the Mark OUT button.

   If you do not specify the OUT point, playback ends at the end of the rightmost object in the Timeline window.

If you specify an IN point after the OUT point, the IN and OUT points switch to keep the IN point to the left of the OUT point.

5. Click the Play IN to OUT button.

   The Play IN to OUT button changes to a Stop button. The marked section of the scene plays back in a continuous loop until you click the Stop button.

6. When you have finished viewing, click the Stop button.

To control how fast frames are displayed during playback:

1. Do one of the following depending on your operating system:
   - (Windows) Select File > Preferences > General.
   - (Macintosh) Select Marquee > Preferences > General.
2. Under Playback, select a playback option.

   For more information on the available options, see "Adjusting General Preferences" on page 210.
3. Click OK.

To remove the marked IN point or marked OUT point:

- Click the Clear IN or Clear OUT button.

To remove both marked points:

- Click the Clear Marks button.

To stop playback, do one of the following:

- Click the Stop button.
- Click in the Time track.

Improving Playback Speed

For basic scenes, playback occurs at 30 fps (60 fields per second) at NTSC non-drop-frame resolution. For more complex scenes, such as those that contain several objects or text using ornate fonts, playback might be less than real time. In those cases, you can improve playback speed if you do any of the following:

- Close the Timeline window.

  When the Timeline window is closed, the position indicator does not need to be updated to show the current time.

- Reduce the size of the viewable area in the Monitor window or Timeline window.
- Reduce the magnification of the scene in the Monitor window.
- Decrease the number of objects in the scene that appear at any one time.

  For example, if a text object contains several paragraphs of text, playback speed can improve if only a few lines are visible at a time.
- Decrease the size of textures.
- Do not use fonts with a lot of detail (for example, serif or script fonts).
- Do not use edge effects (for example, beveled and tube edges; see "Creating Edge Effects" on page 487).
- Do not use extruded objects (see "Extruding Objects" on page 492).
- Do not use soft shadows (see "Changing the Appearance of Shadows" on page 515).
- Do not use motion blur (see "Blurring Moving Objects" on page 495).
- Lower the quality setting (see "Setting the Quality Level for Viewing in the Monitor Window" on page 266).
- Show objects as wire frames (see "Drawing Objects as Wire Frames" on page 494).
- Do not update frames of an animation texture (see "User Interface Preferences" on page 253).

Suspend or stop all other applications running at the same time.

Chapter 14
Placing and Moving Text on Paths

You can place text on and crawl text along straight or curved paths. This chapter describes how to create paths, place text on a path, and control the motion of text along a path.

This chapter includes the following sections:

Understanding Paths

A path is a text container that uses a straight or curved path as the baseline for the text. The text can crawl (scroll) along the path. You create and edit paths using the shape-drawing tools. As you can do with other container objects, you can move, scale, and rotate the path in three-dimensional space.

Creating and Deleting Paths

This section describes how to create a path from a shape, convert a path into a shape, and delete a path.

To create a path:

1. Draw the path using any of the shape-drawing tools.

   For more information on drawing shapes, see "Creating Shapes" on page 362.

2. Select Object > Convert Shape to Path.

   The selected shape becomes a path. If you convert a compound shape, the first shape within the compound shape becomes the path.

   A small square along the path indicates the start of the path and, for left-aligned text, the start of the first character.

Closed paths are not filled. Also, paths are not drawn when you render the project.

To convert a path into a shape:

1. Click the Edit tool, and then click the path.
2. Select Object > Convert Path to Shape.

   Any text that was on the path is deleted.

To delete a path:

1. Click the Edit tool, and then click the path.
2. Press the Delete key.

   Any text that was on the path is deleted.

Adding Text to Paths

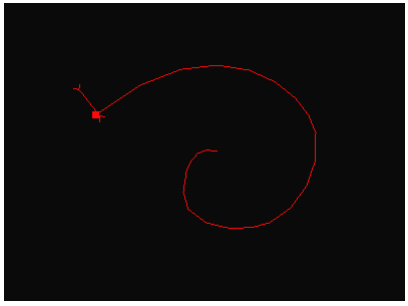
After you create a path, you can use the Text tool to add text to it.

To add text to a path:

1. Click the Text tool, and then click above the path object.

   An insertion point appears on the path.

2. Enter text as you normally would for any text object.



Before typing text

After typing text

By default, text on a path is static and left aligned, meaning the text starts at the beginning of the path but does not crawl along the path.

Removing Text from Paths

You can remove from a path sections of text that you no longer need. You can also delete the path itself to remove the path and the text on it.

To remove text from a path:

- Use the Text tool to delete the text as you normally would do for any text object. The remaining text readjusts accordingly.

  For more information, see "Editing Text" on page 334.

Deleting all the text on a path does not delete the path as well. The path becomes an empty container.

To remove the path and the text on it:

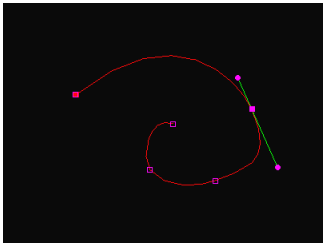
- Delete the path object as you would any other object.

  For more information, see "Copying, Pasting, and Deleting Objects" on page 281.

Editing Paths

You edit paths using the Shape tool the same way you edit graphic objects. As you edit the path, the text on the path moves accordingly.

Before editing path



During path editing

After editing path

For more information, see "Editing Shapes and Paths" on page 367.

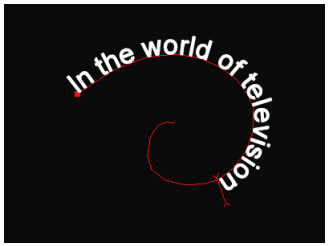
Positioning Text on Paths

You can adjust the position of text on a path the same way you adjust static or crawling text. You can also offset the text from the path.

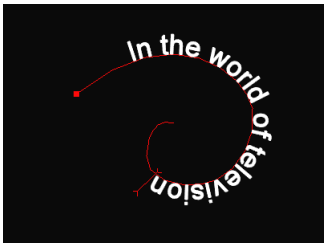
To position text on the path if the text is static on the path, do one of the following:

- Click the Text tool, right-click (Windows) or Ctrl+click (Macintosh) the text, and select Align > *alignment type*.
- Click the Text tool, select the text, and click a Text Alignment button in the Monitor window toolbar.

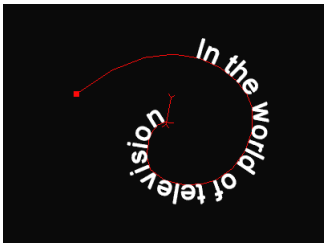
  For more information on selecting text, see "Selecting and Deselecting Text" on page 332.



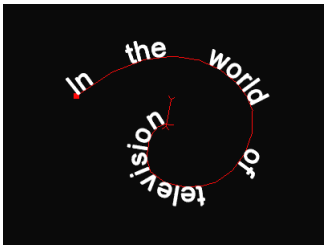
Left-aligned



Center-aligned



Right-aligned



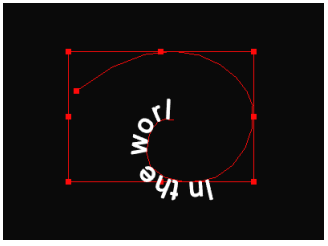
Justified

Equally spaced

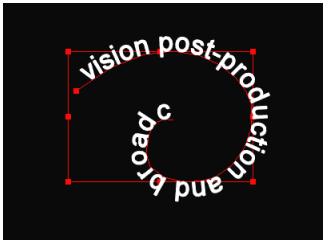
To position text on the path if the text crawls along the path:

- Adjust the “Scroll position” property value in the Text Properties window.

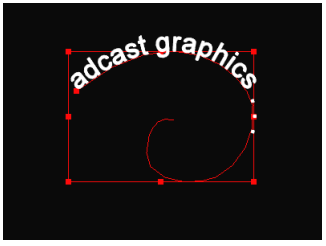
  For more information, see “Controlling Scrolling Speed and Direction” on page 355.



Scroll position = 10



Scroll position = 50



Scroll position = 80

For rectangular paths, the start of the path is the upper-left corner. For elliptical paths, the start of the path is the top of the ellipse. For all other shapes, the start of the path is the first control point you created for the shape.

To reverse the motion of the text on the path, do one of the following:

- Adjust the "Scroll position" property value in the Text Properties window.

  For more information, see "Controlling Scrolling Speed and Direction" on page 355.

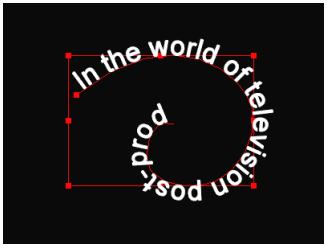
- Right-click (Windows) or Ctrl+click (Macintosh) the path, and then select Reverse Direction.

The Reverse Direction command both reverses the direction of movement of the text and flips the text so that it is on the opposite side of the path from its original location. For example, text that was on the outside of an ellipse moves onto the inside of the ellipse.

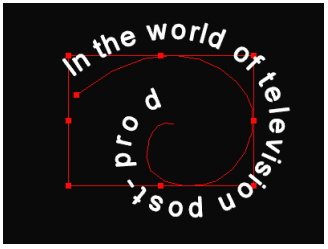
To offset the text from the path:

1. Click the Edit tool, and then click the path. Make sure you do not select the text on the path.
2. In the Path Properties window, adjust the Baseline offset property value.

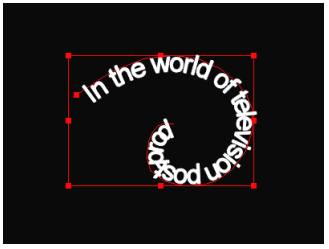
   A value of zero means that the baseline of the text is exactly on the path. Values greater than zero shift the text above the path, whereas values less than zero shift the text below the path.



Baseline offset = 0



Baseline offset = 5



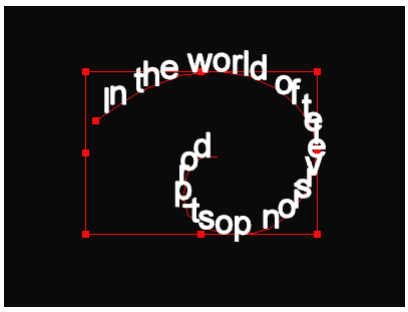
Baseline offset = –5

Orienting Text on Paths

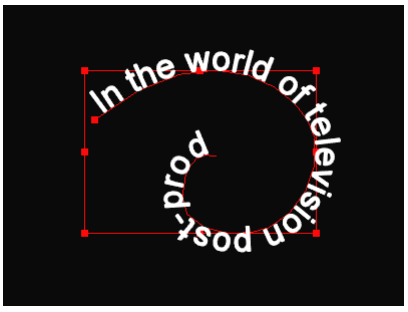
By default, characters point in the direction perpendicular to their location on a path. For example, if you have text that moves along a circular path, the characters point away from the center of the circle. If you prefer to keep the characters upright all the time, adjust the path's orientation.

To adjust the orientation of the text on the path:

1. Click the Edit tool, and then click the path. Make sure you do not select the text on the path.
2. In the Path Properties window, select one of the following options for Orientation:
   - *Upright:* The characters stay vertical (to the local Y axis) all the time.
   - *Follow:* The characters point perpendicular to their locations along the path. This is the default setting.



Orientation = Upright



Orientation = Follow

You can further control the orientation of text on a path by adjusting the individual character's Rotation properties. A path that uses Upright orientation, but whose characters have Rotation values other than 0, produces text that is not upright.

Controlling Object Properties Based on Path Position

By default, the properties of characters on a path are dependent on time like all other properties. For example, to change the height of a character over time, you modify its Font height property curve. However, you can also control the font height (or any property) of a character based on its position along its path. For example, you can easily create characters that gradually increase and then decrease in size as they crawl along their path.

To animate character properties based on their positions along the path:

1. Click the Text tool.
2. Right-click (Windows) or Ctrl+click (Macintosh) the path, and select Property Mode > Position.
3. Select the characters on the path that you want to modify. In most cases, you will want to select all the characters on the path.
4. Click the Animation Mode button.

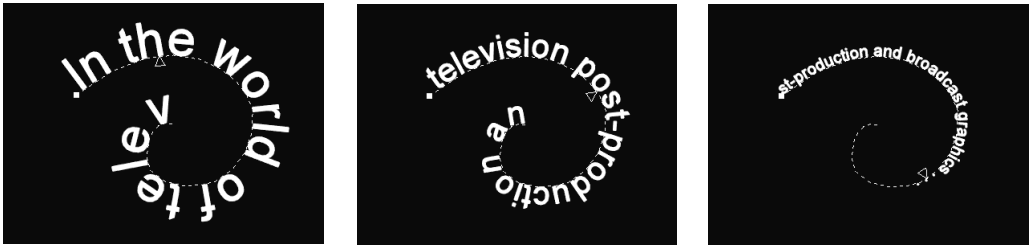
   The Animation Mode button changes to red.
5. Adjust one or more properties of the selected characters at different points in time.
6. Click the Animation Mode button again.

   The Animation Mode button changes to gray.

In *Time* property mode (the default mode), the property values of each character are based on the current time in the project.

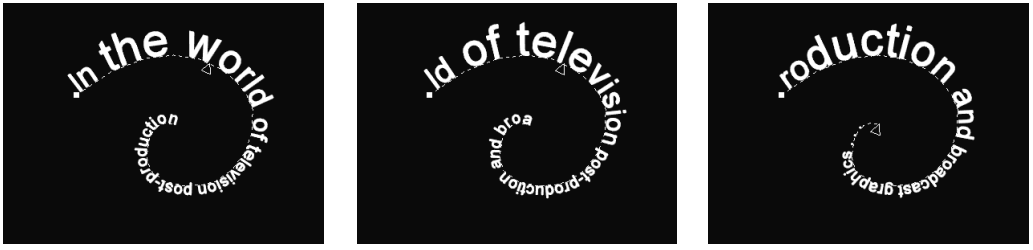
In *Position* property mode, the property values of each character are based on the character's position along the path. The text is left aligned while in Position property mode.

Time Property Mode



All characters use the same font height.

Position Property Mode



Font height changes, based on the character's position along the path.

If the text is crawling along the path and the path is in Position property mode, the text might not crawl completely off the path. To ensure that the text crawls off the path, adjust the "Scroll position" property value at the end of the path's duration.

Chapter 15
Working with Surfaces and Materials

This chapter describes how you modify the appearance of the various surfaces of an object. For example, you can apply a brick texture to a rectangle to give the appearance of a brick wall, a gradient to a wavy shape that runs along the left edge of the view to enhance a scene, or a reflective texture to the edges of text characters to simulate a chrome outline.

This chapter includes the following sections:

Understanding Surfaces and Materials

A surface is an area of an object. You can control the visibility and appearance of each surface by applying a set of properties known collectively as a material.

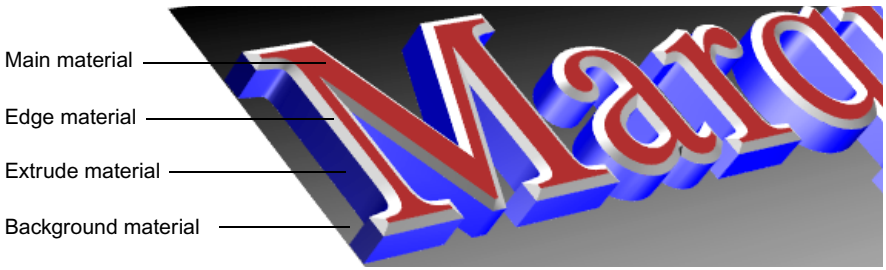
You can apply a material to the following surfaces:

- *Main* — The front and back sides of an object
- *Edge* — The surface created by the Edge effect of an object

  For more information on adding an Edge effect to an object, see "Creating Edge Effects" on page 487.

- *Extrude* — The surface created by the extruded sides of an object

  For more information on extruding an object, see "Extruding Objects" on page 492.
- *Background* — The area behind all objects in deck and text box objects



Each material can be one of the following types:

- *Solid color* — A single color
- *Gradient* — A blend between two or across three or more colors
- *Texture* — A bitmap image or animation (loaded from a file on disk)

Solid color | Gradient | Texture

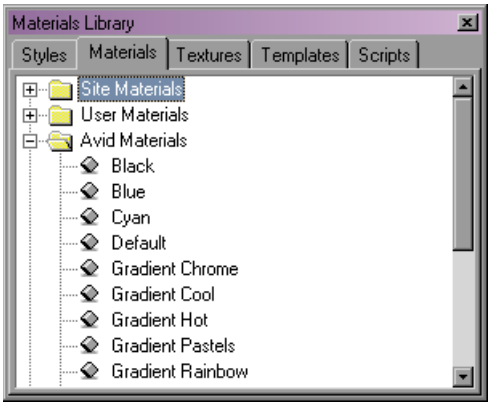
In addition, a material can be lit by light sources (see the chapter "Working with Lights and Shadows" on page 497).

You design and modify materials in the Surfaces Properties window and view and organize materials in the Materials Library window.

You do not need to create a material to change the appearance of an object. A material is simply a definition (a material definition) or a shortcut way of setting the Surfaces properties of an object to specific values.

To open the Materials Library window:

- Select Window > Library > Materials.



Materials are organized within the Materials Library window, with Avid Materials, Site Materials, and User Materials folders as well as a folder for each open title. For more information on libraries, see “Marquee Libraries” on page 173.

Creating, Deleting, and Organizing Materials

The simplest way to create a new material is by saving the Surfaces properties values for an existing title object.

The new material is given a unique name, but you can change the name to be more descriptive. To avoid confusion, do not use a name that already exists in the current folder.

You can delete materials that you no longer need. You can also organize materials by copying or moving them between folders in the Materials Library window. For more information on organizing materials, see “Library Windows” on page 191.

To create a new material:

1. In the Materials Library window, right-click (Windows) or Ctrl+click (Macintosh) the folder in which you want to place the new material, and select New Materials.

   The New Material dialog box appears.

2. Adjust the properties of the new material.

   For more information on these material properties, see "Editing Materials" on page 457.

3. (Option) Type a name for the material in the Name text box.

4. Click OK.

To use a material from an existing object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. From the Surface list in the Surfaces Properties window, select the surface that uses the material.

3. Drag the material from the material swatch in the Surface Properties window to the Materials Library window, and drop it into the folder in which you want it to be saved.

To delete a material:

- In the Materials Library window, right-click (Windows) or Ctrl+click (Macintosh) the material to delete, and then select Cut or Delete.

If you previously applied the deleted material to an object, that object retains the material. The object does not change.

Applying Materials to Objects

Apply a material to an object or one of its properties to change the object's appearance. You can apply different materials to the front, back, edge, and extruded faces of an object. All objects have front and back faces, but only extruded objects have an extruded face. Only objects that have an Edge effect (see "Creating Edge Effects" on page 487) have an edge face. For text and deck objects, you can specify a material for the background of the container.

If you apply more than one material in succession to a surface, the final effect might be additive. For example, if you apply the "Blue" material in the Avid Materials folder, and then apply the "Gradient Chrome" material, the resulting surface will be tinted with blue because the "Gradient Chrome" material definition sets the Tint property of the gradient to On. In some other cases, the second material might simply overwrite the effect of the first.

Applying Materials to Object Surfaces

By default, when the Main surface of an object has a material on it, the material appears on the front and back surfaces of the object. If an object does not have a selected edge material (see "Applying Materials to Object Surfaces" on page 455) but the object has an Edge effect, the edge uses the Main material. If an object does not have a selected extrude material (see "Applying Materials to Object Surfaces" on page 455) but the object is extruded, the extruded surface uses the Main material.

To apply a material to the surface of an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. From the Surface list in the Surfaces Properties window, select the surface you want to affect.

3. Do one of the following:

   Use a background material on a deck object to show the material on all pages of the deck.

   - Double-click the material in the Materials Library window.

     You can select a material from any folder.

   - Drag a material library element from the Materials Library window, and drop it on the material swatch surface in the Surfaces Properties window that represents the surface you want to affect.

   - Adjust properties in the Surfaces Properties window.

     For more information on editing materials by adjusting properties in the Surfaces Properties window, see "Editing Materials" on page 457.

If you apply a texture to a surface, the name of the texture appears in the Texture drop pocket of the Surfaces Properties window. You can also change the texture on a surface by dragging a texture from the Textures Library window to the Texture drop pocket.

You can use the current Video Background image, located in the Avid Textures folder of the Textures Library window, as a texture. However, if you update the image by moving the position indicator in your Avid editing application, the image also updates wherever the texture is in use. For more information, see "Using the Default Background" on page 273.

To change the way a material is applied to a surface of an object, see "Editing Materials" on page 457. For example, if you apply a texture to a text box, each character in the text box uses a copy of that texture. If, instead, you want the texture to appear across all the characters in the text box, change the texture Mapping setting.

If you apply a material to objects by using a material definition in the Materials Library window, changes to the material definition do not update objects that use the definition. The material is simply a definition of a set of properties and their values.

Controlling the Drawing of Back Faces

If you do not intend to show the back faces of an object (for example, you do not intend to rotate the object around the X or Y axis), you can instruct the system not to draw them. As a result, you can decrease rendering time and improve the appearance of transparent three-dimensional objects that are rotated.

To control drawing of the back faces of an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Render Properties window is not already open, select Window > Properties > Render.

   The Render Properties window opens.

3. Select or deselect "Cull back faces."

   When "Cull back faces" is selected, the back face of the object is not drawn and becomes transparent.

Editing Materials

A material consists of properties (characteristics) that describe its appearance. For example, you can modify a material's type, color, opacity, and whether it is affected by light sources in the scene. You can modify the material definition in the Materials Library window or the material properties of a surface of an object.

To edit a material definition in the Materials Library window:

1. Right-click (Windows) or Ctrl+click (Macintosh) the material in the Materials Library window, and select Edit.

   The Edit Material dialog box appears.

2. Adjust the properties in the Edit Material dialog box.
3. Click OK.

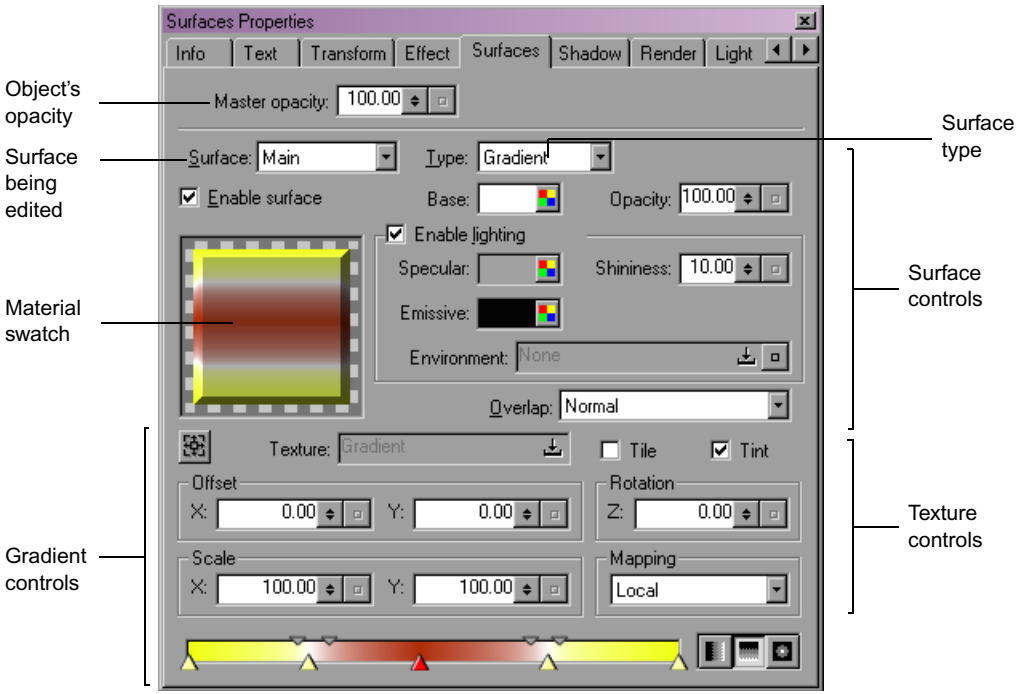
To edit a material used by an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.

   The Surfaces Properties window opens.



3. From the Surface list, select a surface to edit.

   The Surfaces Properties window shows the settings for the selected surface.

4. Adjust the properties in the Surfaces Properties window using the appopriate procedures from the following sections:

   - Changing Material Names
   - Using Custom Materials for Object Surfaces
   - Changing the Type of Material
   - Viewing Material Swatches
   - Changing the Base Color of Materials
   - Changing the Opacity of Materials
   - Allowing Materials to Be Affected by Light Sources
   - Controlling the Appearance of Overlapping Surfaces
   - Working with Gradients
   - Understanding the Mapping Property for Gradients and Textures

- Working with Textured Materials
- Copying Materials and Textures from Other Locations

Changing Material Names

You can change the name of a material definition stored in the Materials library. A material on an object has no name.

To change the name of a material definition:

1. Do one of the following in the Materials Library window:
   - Right-click (Windows) or Ctrl+click (Macintosh) the material, and then select Rename.
   - (Windows only) Click the material, and then click it a second time.
   - (Macintosh only) Click the material name, and then wait a moment until the name becomes editable.

   You can now edit the material name.
2. Type a new name for the material definition.

Using Custom Materials for Object Surfaces

By default, the Edge and Extrude surfaces of an object use the Main surface's material. However, you can set each surface to use a different material.

To enable a surface to use a custom material:

- Select "Enable surface" in the Surfaces Properties window.

You can now adjust the material properties for the enabled surface by using the controls in the Surfaces Properties window.

Changing the Type of Material

Materials can be solid colors, gradients, or textures. You can change a material's type at any time.

To change a material's type:

- From the Type list in the Surfaces Properties window, select a type of material.

When you use a solid color or gradient for a DVE object's Main surface, the DVE object resizes to the size of the frame. When you use a texture, the DVE resizes to the size of the texture's frame.

Viewing Material Swatches

Material swatches in the Surfaces Properties window help you view how a material appears on different types of surfaces.

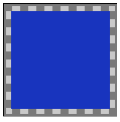
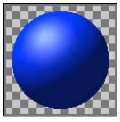
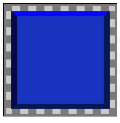
To change the sample object used by a material swatch:

- Right-click (Windows) or Ctrl+click (Macintosh) the material swatch, and select View As > *sample object*.

  The following table describes the available sample objects.

  For more information on lit materials, see "Allowing Materials to Be Affected by Light Sources" on page 463.

Sample Objects for the Material Swatch

Object	Name	Description
	Plane	A flat surface. Use this option when you want to see how a material maps onto a flat surface without any edges, extrusions, or deformations.
	Sphere	A spherical surface. Use this object when you want to see how a light source affects a material. If the material is not lit, the sphere appears as a circle.
	Bevel	A square surface with a beveled edge. Use this object when you want to see how light affects a material mapped onto an object with a bevel or other edge effect. If the material is not lit, the bevel appears as a square.
	Sample Object	A cylinder with a beveled edge. Use this object to quickly select from the available surfaces of an object.

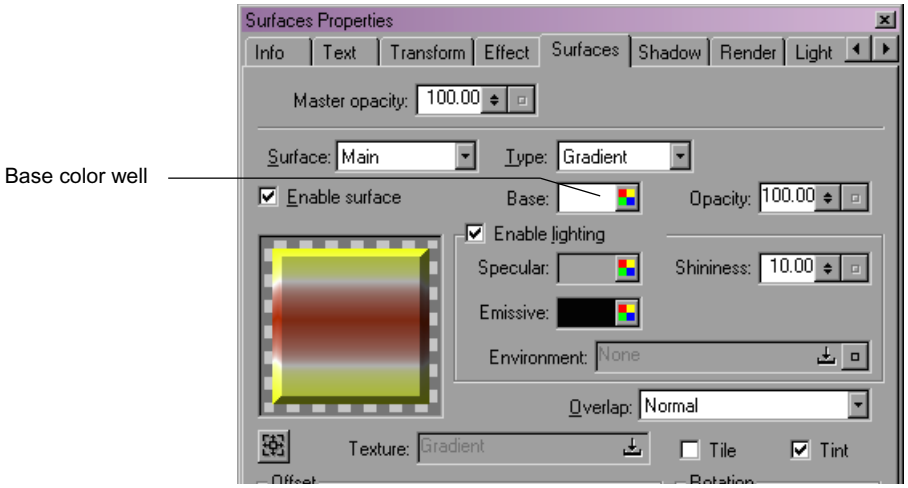
Changing the Base Color of Materials

For solid-colored materials, the base color is the color of the material. If gradients and textures are tinted, the base color is the tint color of the material (see “Tinting Textures” on page 483).

To change a material’s base color:

- Use the Base color well.

  For more information on setting color values, see “Selecting Color Values” on page 205.



Changing the Opacity of Materials

A material’s opacity controls how much of the material, and the object surface on which it is applied, is visible. Also, if you are saving a matte, the opacity level controls the object’s participation in the generation of the matte.

To change a material’s opacity:

- Adjust the Opacity value in the Surfaces Properties window.

Opacity = 10 | Opacity = 40 | Opacity = 70 | Opacity = 100

To use an object's opacity setting in the creation of a matte:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Render Properties window is not already open, select Window > Properties > Render.

   The Render Properties window opens.

3. Select "Generate matte."

You can quickly fade an object in and out — starting transparent, holding full opacity for a range of frames, and then ending transparent.

To fade an object in and out:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. In the Timeline window, move the position indicator to the time when you want to start holding at full opacity.

3. Click the Mark IN button in the Transport controls.

   If you do not specify an IN point, full opacity starts at the beginning of the object's duration.

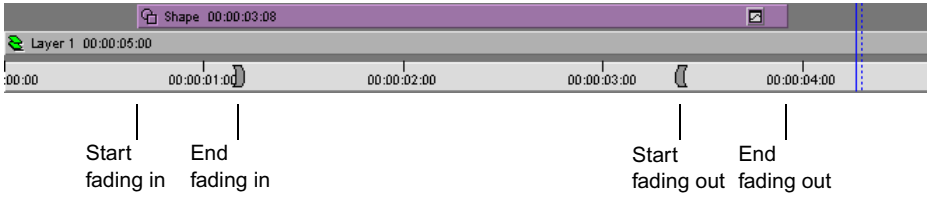
4. Move the position indicator to the time when you want to end holding at full opacity.

5. Click the Mark OUT button in the Transport controls.

   If you do not specify an OUT point, full opacity stops at the end of the object's duration.

   If you place both the IN and OUT points outside the object's duration, the object will not be affected.

6. Click the QuickFade button in the Timeline.



The Opacity property curves on the object's Main, Edge, and Background materials are changed.

You can enhance the fade-in and fade-out periods by adding an ease in and ease out before the IN point and after the OUT point. For more information on adding ease in and ease out, see "Smoothing Curve Segments" on page 434.

Allowing Materials to Be Affected by Light Sources

Materials can have two types of finishes:

- *Flat* — A matte finish, which is not affected by light sources. The material appears the same, regardless of the lighting of the scene or the position and orientation of the surface on which the material is applied.
- *Lit* — A glossy finish, which is affected by light sources. The material changes appearance, depending on the lighting of the scene and the position and orientation of the surface on which the material is applied.

  Use lit materials for objects that have depth, such as objects that use beveled or extruded edges. For more information on types of edge effects available, see the table "Edge Effect Types" on page 489.

When a material is lit, you can adjust the specular highlight and emissive colors of the material, as well as its shininess. For more information on using lights to affect a material's appearance, see the chapter "Working with Lights and Shadows" on page 497.

To allow a material to be affected by light sources:

1. In the Surfaces Properties window, select "Enable lighting".
2. For gradient and texture materials, select Tint.

   Gradients and textures use the specular and emissive color settings and shininess controls only when Tint is selected.

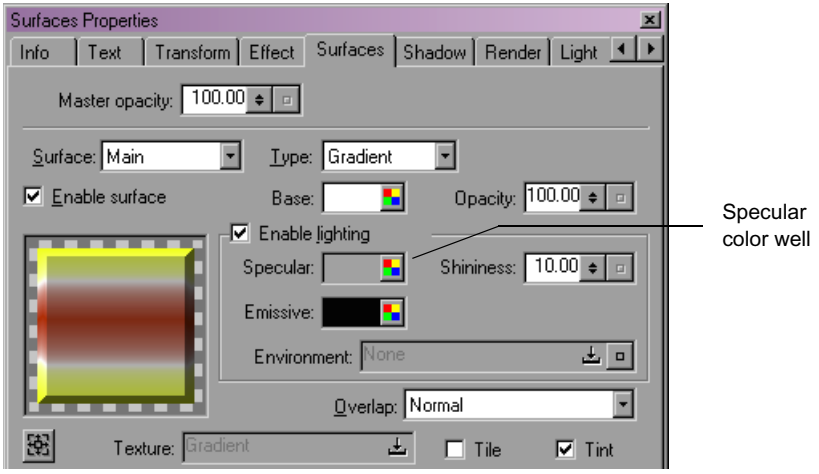
Adjusting the Specular Highlight Color

When a light source shines on a lit material, the region of the surface that reflects the light directly to the observer (known as a specular highlight) appears brighter.

To adjust the specular highlight color of a lit material:

- Use the Specular color well in the Surfaces Properties window.

  For more information on setting color values, see "Selecting Color Values" on page 205.



You can control the size of the specular highlight by adjusting the shininess of the material (as described in "Adjusting the Shininess of Materials" on page 465).

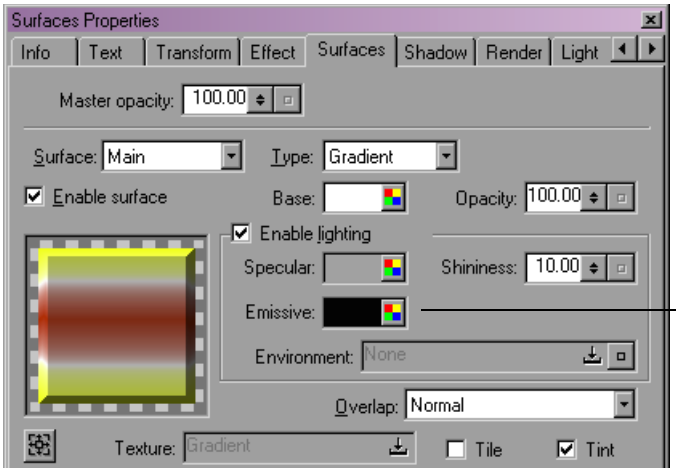
Adjusting the Emissive Color

When a light source does not shine on a lit material, the material can emit or glow with a specific color, known as its emissive color. By adjusting the emissive color, an object can appear red when lit and green when not lit.

To adjust the emissive color of a lit material:

- Use the Emissive color well in the Surfaces Properties window.

  For more information on setting color values, see "Selecting Color Values" on page 205.



Adjusting the Shininess of Materials

When a light source shines on a lit material, you can control how shiny the material is.

To adjust the shininess of a lit material:

- In the Surfaces Properties window, adjust the Shininess value.

  Values closer to 0 simulate a very dull surface (specular highlight area is larger and the light is less focused), whereas values closer to 100 simulate a very shiny surface (specular highlight area is smaller, and the light is more focused).

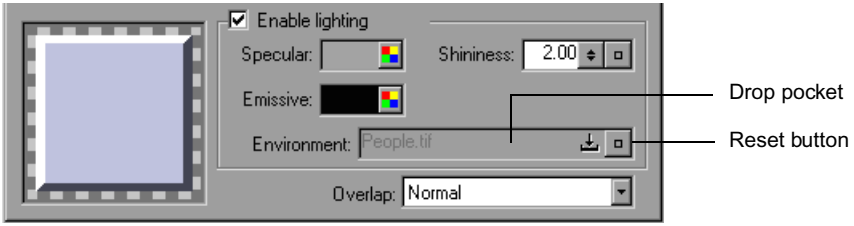
The Shininess value has no effect if the specular color of the material is black (see "Adjusting the Specular Highlight Color" on page 463).

Simulating Reflective Surfaces Using Environment Maps

When a surface is lit, the specular color appears on the areas of the surface closer to a light source to simulate a highlight. You can also show a texture, known as an environment map, in the specular highlight areas of the surface. An environment map is similar to a texture in Reflection mapping mode, except that an environment map allows you to show a reflection of a texture on an existing texture.

To use an environment map for a material:

- Drag a texture from the Textures Library window onto the Environment drop pocket in the Surfaces Properties window.



To remove the environment map:

- Click the Reset button for the Environment drop pocket.

Controlling the Appearance of Overlapping Surfaces

Normally, when two surfaces of the same object or different objects overlap, the material on one surface does not affect the material on the other surface. However, you can change the appearance of overlapping surfaces by using overlap effects (also known as Boolean or bitwise effects). For example, you can create two different colored shapes whose intersection or overlapping areas appear in a different color.

To control how a surface's material is affected by the materials of other surfaces:

- From the Overlap list of the Surfaces Properties window, select an effect.

  The following table describes the Overlap effects.

When you use an overlap effect on an object, you should be aware of the following considerations:

- Your view of an overlap effect while working in Marquee might not be accurate if you are displaying a video background. Marquee includes the background pixels when rendering the overlap effect on the screen (in the Monitor window and in the Preview window), but does not include the video background in the final rendered version of the title. To check how an overlap effect will look in the final version of a title, use the Background button to turn off the video background in the Monitor window.

- The object does not appear antialiased in the Monitor window. Also, semitransparent surfaces appear opaque.
- Shadows affect surfaces that use overlap effects, which might not produce the effect you intend. Also, overlap effects do not affect the alpha channel of the scene.
- If an object in a 3D layer uses an overlap effect, and the object intersects another object at a higher position, the overlap effect will not be apparent. Although objects in a 3D layer are positioned in three-dimensional space, their relative depths affect the order in which they are drawn in the scene.
- Overlap effects do not look correct when you are viewing the current layer only or when you tumble the scene.

Surface Overlap Effects

Overlap	Example	Description
Normal		The surface is not affected by other surfaces under it. This is the default setting.
Invert		The color of each pixel under the surface is reversed or inverted. Specifically, the hue of each color is rotated by 180 degrees, and the saturation and brightness switch values; white becomes black, black becomes white, and red becomes cyan. Changes to the surface's opacity and type do not affect the result. Enabling lighting for the surface disables the effect. You can achieve the best results by using this effect on a solid surface.
And		The color of each pixel under the surface appears tinted. Specifically, a bitwise (bit for bit) AND operation is performed between the binary representations of each pixel in the surface and the other surfaces under it. In an AND operation, both bits must be 1 for the result to be 1. Otherwise, the result is 0. Changes to the surface's type affect the result. Enabling lighting for the surface disables the effect. A solid white surface does not produce any change to the underlying surfaces. You can achieve good results using opaque solid colors. Results are not as good when you combine gradients or textures with other gradients or textures or use semitransparent solid colors.

Surface Overlap Effects (Continued)

Overlap	Example	Description
Exclusive Or		The color of each pixel under the surface is reversed or inverted in a way similar to the Invert overlap effect, except that the surface's appearance affects the result. Specifically, a bitwise (bit for bit) Exclusive Or (XOR) operation is performed between the binary representations of each pixel in the surface and the other surfaces under it. In an Exclusive Or operation, the resulting bit is 1 if only one of the bits is 1. Otherwise, the result is 0. Changes to the surface's type affect the result. Enabling lighting for the surface disables the effect. You can achieve good results using opaque solid colors. Results are not as good when you combine gradients or textures with other gradients or textures.
Not Or		The color of each pixel under the surface is reversed or inverted in some combinations and tinted in other combinations. Specifically, a bitwise (bit for bit) Or operation is performed between the binary representations of each pixel in the surface and the other surfaces under it. Then the resulting bit is inverted (Not operation). In a Not Or operation, the resulting bit is 1 if both bits are the same. Otherwise, the result is 0. Changes to the surface's type affect the result. Enabling lighting for the surface disables the effect. A solid white surface produces black. A solid black surface produces an effect similar to the Invert overlap effect. You can achieve good results using opaque solid colors. Results are not as good when you combine gradients or textures with other gradients or textures.

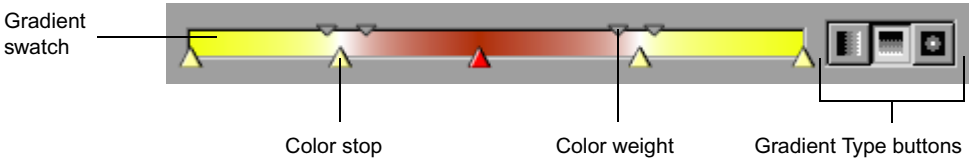
Working with Gradients

Gradients are blends of color or opacity. You can use gradients as backgrounds for text or other objects, as well as the materials for text itself. You can also use gradients to simulate soft-edged objects, such as soft-edged rolls and crawls. You can edit gradients containing blends across two or more colors or opacity levels.

When defining a gradient, you should understand the concept of tinting in Marquee. You can use the Base color for a surface to tint a gradient. The result is a new color that combines the Base color and the gradient colors. The effect of tinting is visible on the object but is not represented in the gradient swatch. If you are defining a gradient and the final colors on your title object's surface are not what you expect, you might need to deselect Tint.

Understanding the Gradient Controls

You define a Marquee gradient using gradient controls in the Surfaces Properties or Quick Titles Properties window. The gradient controls become available once you select Gradient in the Type list of the Surfaces Properties window or select "Enable gradient" in the Quick Titles Properties window. The following illustration shows the gradient controls.



The gradient controls consist of the following elements:

- **Gradient swatch**

  The gradient swatch is a colored bar that provides a visual indication of the blends of color and opacity that you define for the gradient.

- **Color stops**

  Color stops are upward-pointing triangles that appear below the gradient swatch. Color stops are color keyframe markers between which colors or opacity levels blend. You can set a specific color and opacity level for each color stop, and you can create as many new color stops as you want for a complex gradient. The default gradient has two color stops (also known as a two-point gradient), appearing at the ends of the gradient swatch.

- **Color weights**

  Color weights are downward-pointing triangles that appear above the gradient swatch. Color weights control the location of the color halfway between the colors at adjoining color stops. By default, a color weight is

halfway between adjoining color stops, which produces a smooth ramp between the two colors. However, you can drag the color weight right or left to change the appearance of the gradient.

- **Gradient Type buttons**

  The Gradient Type buttons control the type of gradient — Horizontal, Vertical, or Radial.

Editing Gradient Materials

You can edit gradient materials in the Surfaces Properties window or, for Main and Edge surfaces only, in the Quick Titles Properties window.

For more information on using the Quick Titles Properties window to edit a gradient material, see "Defining a Color or Opacity Gradient for Main Surfaces" on page 156.

To edit a gradient material:

1. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.
2. If the material is not already a gradient, in the Type list of the Surfaces Properties window, select Gradient.

   The gradient controls appear in the Surfaces Properties window. The currently defined gradient appears on the active surface of the object and is represented in the gradient swatch.
3. If necessary, create or remove color stops, as follows:
   - To create a color stop, Alt+click (Windows) or Option+click (Macintosh) the bottom edge of the gradient swatch at the location where you want to create the color stop.

     The pointer changes to a crosshair when you press the Alt key (Windows) or Option key (Macintosh) and move the pointer to the bottom edge of the gradient swatch.

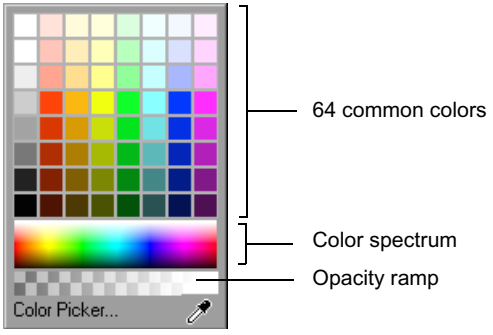
     You cannot create a color stop at the same location as an existing color stop.
   - To remove a color stop on Windows, click the color stop to select it, and then, with the pointer still over the color stop, press the Delete key.
   - To remove a color stop on the Macintosh, Shift+Option+click the color stop.

You cannot remove the leftmost or rightmost color stop. All gradients have at least these two color stops.

4. To adjust the color or opacity at a color stop, open a color control by doing one of the following:
   - Right-click (Windows) or Ctrl+click (Macintosh) the color stop to open the Color menu.
   - Double-click the color stop to open the Color Picker dialog box.
5. Select a color value by doing one of the following:
   - Click one of the 64 common color swatches in the Color menu.
   - Pick a color from the Color spectrum in the Color menu.
   - Use the eyedropper in either the Color menu or the Color Picker dialog box to select a color from any location on the screen.
   - Use the RGB or HSB sliders in the Color Picker dialog box to define a precise color.

   For more information on selecting colors, see "Selecting Color Values" on page 205.
6. Select an opacity value by doing one of the following:
   - Click the opacity value you want in the Opacity ramp in the Color menu.

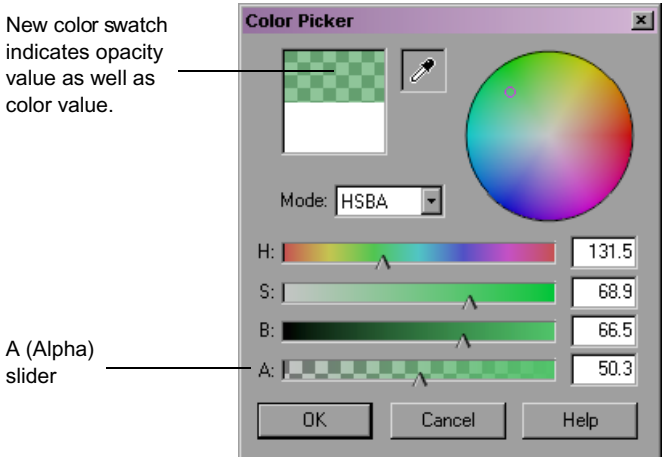
     If you click at the left end of the Opacity ramp, you set the opacity level to fully transparent. If you click at the right end of the Opacity ramp, you set the opacity level to fully opaque.



You can set an opacity value and a color value in a single operation within the Color menu by dragging from the opacity value you want in the Opacity ramp to the color that you want in the Color spectrum and then releasing the mouse button. (This method does not work with the 64 common color swatches.) Although this is a useful technique, you might inadvertently set an opacity or color value that you do not intend by dragging. If you want to set only a single value (opacity or color), make sure that you click in either the Opacity ramp or the Color spectrum and then immediately release the mouse button.

- Use the A (Alpha) slider in the Color Picker dialog box to set a specific opacity value.

  Values range from 0 (fully transparent) at the left end of the slider to 100 (fully opaque) at the right end of the slider.



7. To position a color stop at a particular location on the gradient, drag the color stop.
8. Adjust the blend of color between color stops by dragging the color weight between color stops.

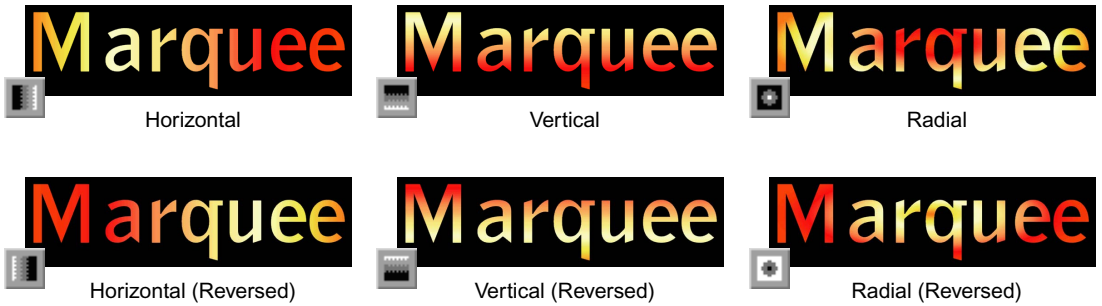
Color weight halfway between the color stops

Color weight closer to the left color stop

Color weight closer to the right color stop

Gradient Type buttons 

9. Select the type of gradient by clicking one of the Gradient Type buttons. Click the button again to reverse the gradient. The following gradient types are available:
   - *Horizontal:* The gradient is applied to the surface from left to right.
   - *Vertical:* The gradient is applied to the surface from top to bottom.
   - *Radial:* The gradient is applied to the surface from the edge to the center in concentric circles.



10. (Option) Use any of the texture properties in the Surfaces Properties window to adjust the gradient.

    In particular, for container objects such as text objects, you might want to adjust the Mapping property so that the gradient applies to the container's subobjects in the way you want. For more information, see "Understanding the Mapping Property for Gradients and Textures" on page 474.

    For more information on texture properties, see "Working with Textured Materials" on page 476.

Understanding the Mapping Property for Gradients and Textures

The Mapping property controls how Marquee applies gradients or textures to the surface of an object. The following table describes and illustrates the mapping options.

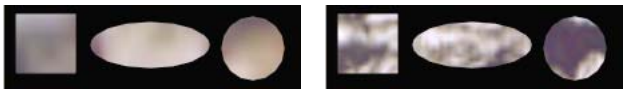
Mapping Property Options

Option	Description	Examples
Local	Applies the texture to each object as if it were a decal. If you use local mapping on a container object, each object within the container is applied separately. This is the default option.	 Gradient applied with Local mapping to individual objects (affects each object separately).  Gradient and Texture applied with Local mapping to a text object (affects each text character separately).  Gradient and Texture applied with Local mapping to objects in a deck (affects each object separately).

Mapping Property Options

Option	Description	Examples
Container	Applies the texture based on the dimensions of the object's container. For example, you can apply a texture to a shape but make the texture relative to the scene's dimensions (since the container for a single shape is the whole scene). This option also allows you to apply a texture across a container's object (for example, across the characters in a text box).	 Gradient applied with Container mapping to individual objects. Since the container for these objects is the scene, only the wide rectangle (which occupies the full width of the scene) shows the full range of the gradient. The other objects show only the part of the gradient range appropriate for their location within the scene.  Gradient applied with Container mapping to objects in a deck. In this case the objects' container is the deck, and since the objects occupy almost the full width of the deck, you can see almost the full range of the gradient across the objects..   Gradient applied with Container mapping to a text object. In the first example, the text object's bounding box is approximately the same width as the word, so the full range of the gradient appears on the word. In the second example, the bounding box is much wider than the word, so only part of the gradient's range appears on the word.   Texture applied with Container mapping to a text object. The texture is applied to the entire text object based on the dimensions of the bounding box. In this example, you can see that the original texture (shown on the left) is compressed vertically in accordance with the aspect ratio of the bounding box.

Mapping Property Options

Option	Description	Examples
Reflection	Uses the surface of the object as if it were a mirror reflecting the texture (reflection map). Reflection maps are used mainly as "ambient" textures. By default, reflection maps enlarge the texture and so reduce detail. You can increase the detail by adjusting the Scale properties for the surface.	 Texture applied with Reflection mapping. The example on the left uses the default Scale values of 100%; the example on the right reduces the X Scale value to 25% to produce more detail.

Working with Textured Materials

For materials that use textures, you can control how the texture (the single image or sequence of images on disk) appears on the surface of an object. Gradients can also use these same controls.

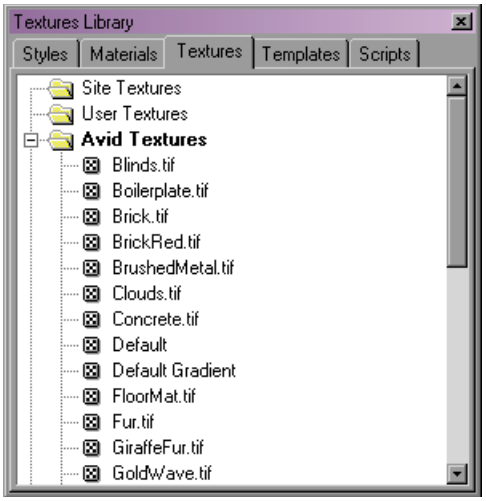
You cannot animate the texture that a material uses over the duration of an object, but you can animate the properties of the texture to achieve similar results.

Opening the Textures Library Window

The Textures Library window lists the textures available in the title and that you can use in a scene.

To open the Textures Library window:

- Select Window > Library > Textures.



Textures are organized within Marquee Library folders, with Avid Textures, Site Textures, and User Textures folders as well as a folder for each open title. For more information on Marquee libraries, see "Marquee Libraries" on page 173.

Importing and Deleting Textures

When you want to use an image, animation, or video file as a texture for a surface, you must first import it into the title. You can import a texture into any of the user-modifiable folders in the Textures Library window. As a result, a texture might be available for a specific user, for all users at the site, or for use only in the current title. You can also remove textures you no longer need.

When you use a video or animation file as a texture, note the following behavior:

- When you move the position indicator to different times in the title, by default, the correct frame of the video or animation appears in the Monitor window.

  You can control when to display or use the correct frame by using the controls in the User Interface tab of the Title Preferences dialog box. For more information, see "User Interface Preferences" on page 253.

- The duration of the video or animation is not affected by the duration of the object using it.

If the object's duration is shorter than the video or animation's duration, the object starts with the first frame of the video or animation and uses as many frames as necessary.

If the object's duration is longer than the video or animation's duration, the video or animation repeats (loops).

Importing a texture into a title's folder makes that texture definition available on any system to which you copy the title, but you also need to copy the image or animation file itself to that other system.

To make a texture available to all users on a site, place the image or animation file in the location for the storage of Site library elements, for example in a subfolder called Site_Textures (see "Library Folders" on page 175). Then import the texture into the Site Textures folder in the Textures Library window. As long as all users have defined the same location for the storage of Site library elements, the texture will be available to all users.

To import a new texture:

1. In the Textures Library window, right-click (Windows) or Ctrl+click (Macintosh) the folder in which you want to place the new texture, and select New Texture.

   The New Texture dialog box appears.

2. Select the single image or animation file on disk that you want to use as a texture.
3. Click Open.

The new texture appears using its file name in the current folder. You can change the name of the texture definition by right-clicking the name and selecting Rename.

To delete a texture:

- In the Textures Library window, right-click the texture to delete, and select Cut or Delete.

Deleting a texture does not affect any objects that use the texture, nor does it delete the image or animation file on disk. Only the texture definition is deleted.

Applying Textures

You apply a texture to a surface of an object in the same way you apply a material. For more information, see "Applying Materials to Objects" on page 454.

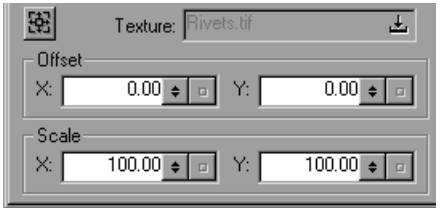
The single frame from the current editing application sequence that Marquee imports for use as the reference background is stored as a texture in the Avid Textures folder and can be applied to a surface. For more information, see "Working with Backgrounds" on page 273. Remember, however, that this image changes whenever you update the background. If you want to use a specific frame from your video sequence as a texture that is permanently available in Marquee, you can export that frame from your editing application as a graphics file and then import it into the Marquee Textures Library.

Positioning and Tiling Textures on Surfaces

When you first apply a texture to a surface, the texture is centered on the surface. However, you can position (offset) the texture by using the controls in the Surfaces Properties window. You can also control whether the texture appears once on the surface or is tiled (repeated).

To position a texture on a surface:

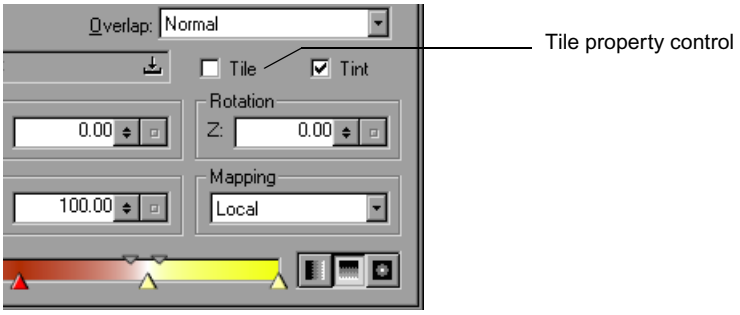
- In the Offset area of the Surfaces Properties window, adjust the X and Y Offset values.



A texture is offset from its original mapping on a surface. Texture offsets are not based on the scene's dimensions.

To control whether a texture is tiled on a surface:

- In the Surfaces Properties window, select or deselect Tile.



If a material is tiled, the texture is repeated on all sides. Otherwise, the texture appears only once.

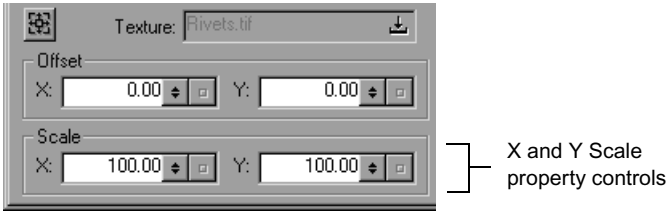
If you use a tiled gradient on a rectangular surface, you might see a thin line along an edge of the surface that is colored the same as the opposite edge of the surface. To prevent this extra line from appearing, deselect Tile.

Scaling Textures on Surfaces

When you first apply a texture to a surface, the texture covers the entire surface. However, you can scale the texture up or down by using the controls in the Surfaces Properties window.

To scale a texture on a surface:

- In the Scale area of the Surfaces Properties window, adjust the X and Y Scale values.



A texture is scaled based on its original size, as mapped onto a surface. Texture Scale value are not based on the scene's dimensions.

If you reduce a texture on a surface, you can see another copy of the texture next to it if you use Tile.

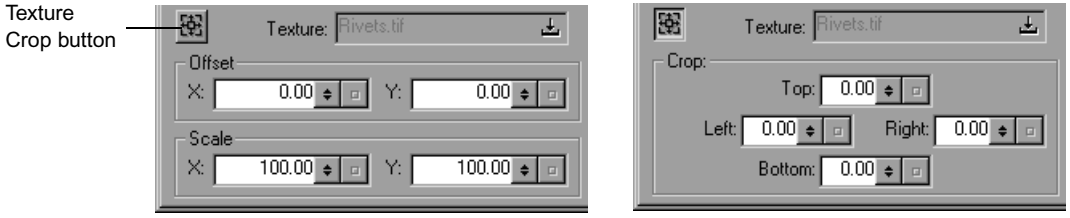
Cropping Textures on Surfaces

If you want to use only a region of a texture, you can crop (trim) the edges of the texture before it is mapped to the surface. Cropping is useful for removing black lines at the borders of textures captured from a video source. Cropping is equivalent to a combined action of offsetting and scaling a texture. You can either crop or offset and scale, but not both.

To crop a texture on a surface:

1. In the Surfaces Properties window, click the Texture Crop button.

   The Crop area replaces the Offset and Scale areas below the Texture Crop button in the Surfaces Properties window.



Offset and Scale controls

Equivalent Crop controls

2. In the Crop area, adjust the Top, Left, Right, and Bottom values.

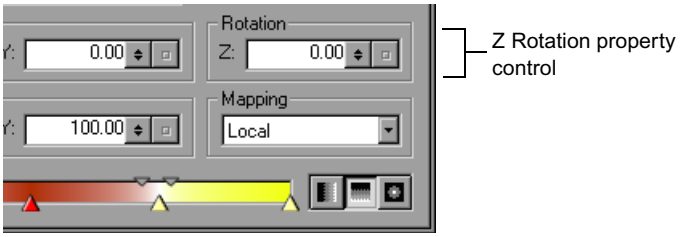
The Crop values show the equivalent Offset and Scale values, and vice versa.

Rotating Textures on Surfaces

When you first apply a texture to a surface, the texture is oriented upright on the surface, based on the object's original orientation. However, you can rotate the texture around the Z axis by using the control in the Surfaces Properties window.

To rotate a texture on a surface:

- In the Rotation area of the Surfaces Properties window, adjust the Z Rotation value.



A texture is rotated based on its original orientation (no rotation), as mapped onto a surface.

Controlling How Textures Are Mapped onto Surfaces

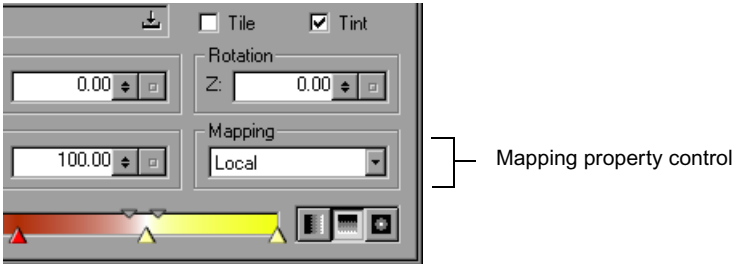
The mapping of a texture onto a surface controls how the texture is used. By changing the texture mapping, you can produce interesting effects.

For more information on the Mapping options and their effect on the appearance of a textured surface, see "Understanding the Mapping Property for Gradients and Textures" on page 474.

When you choose the Reflection option in the Mapping area to change a texture into a reflection map, the texture is enlarged to produce less detail in the reflection. If you want more detail from the texture in the reflection, you can scale down the texture.

To control how a texture is mapped onto a surface:

- Select an option in the Mapping area of the Surfaces Properties window.



To increase detail in a texture that uses the Reflection Mapping option:

- Adjust the X and Y controls in the Scale area of the Surfaces Properties window.

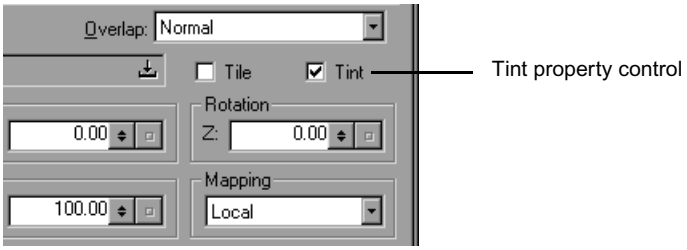
For more information, see “Scaling Textures on Surfaces” on page 480.

Tinting Textures

If you want to change the tone of a texture to enhance the texture or to create an interesting effect, use the Tint control in the Surfaces Properties window. When a material is tinted, the Base color is used as the tint color. Solid-colored materials cannot be tinted.

To tint a texture:

1. In the Surfaces Properties window, select Tint.



Use a brown Base color to simulate sepia-toned surfaces.

2. Use the Base color well to select the tint color.

   The system tints the texture with the color you selected.

   For more information on setting color values, see “Selecting Color Values” on page 205.

Copying Materials and Textures from Other Locations

When you are editing a material definition, you can copy an existing material or texture definition from the Materials Library, Textures Library, and Surfaces Properties windows. When you are creating a style definition, you can use an object’s material definition from the Surfaces Properties window. This section describes how to copy materials and textures among these windows.

To copy a material or texture from the Materials Library window or Textures Library window using Copy and Paste commands:

1. Right-click (Windows) or Ctrl+click (Macintosh) the material in the Materials Library window or the texture in the Textures Library window, and select Copy.
2. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.
3. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.
4. In the Surfaces Properties window, right-click (Windows) or Ctrl+click (Macintosh) the material swatch, and select Paste Material or Paste Texture:
   - To replace the object's material with the material you copied from the Materials Library window, select Paste Material.
   - To replace the texture used by the object's material with the texture you copied from the Textures Library window, select Paste Texture.

     The object's material changes to a texture if it was not previously a texture.

To copy a material or texture from the Materials Library window or Textures Library window by dragging:

- Drag the material definition in the Materials Library window or texture definition in the Textures Library window directly onto the object in the Monitor window or the material swatch in the Surfaces Properties window.

For more information on textures, see "Working with Textured Materials" on page 476.

To create a material definition from a material used by an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.
2. From the Surface list in the Surfaces Properties window, select the surface that uses the material you want to use in a new material definition.

3. Right-click (Windows) or Ctrl+click (Macintosh) above the material swatch in the Surfaces Properties window, and select Copy Material.
4. In the Materials Library window, right-click (Windows) or Ctrl+click (Macintosh) the folder in which you want to place the new material definition or an item within the folder, and select Paste.

   A new material definition, which uses the copied material and its properties, appears in the current folder. You can rename the definition using a unique name.

To create a style definition from one or more surface materials used by an object:

1. Select the object.

   For more information, see “Selecting and Deselecting Objects” on page 280.
2. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.
3. If the Styles Library window is not already open, select Window > Library > Styles.
4. Drag the material from the material swatch of the Surfaces Properties window into a folder in the Styles Library window.

Chapter 16
Working with Object Effects

This chapter describes the visual effects that you can use on objects. By default, new objects are two dimensional. To add depth to an object or to enhance the appearance of the edge of the object, use an Edge effect or extrude the object. For previewing purposes or to create a wire-frame effect, draw objects as a wire frame. To simulate the blurry appearance of objects moving fast, use the motion blur controls.

For information on digital video effects, see the chapter "Working with Digital Video Effects" on page 379.

This chapter includes the following sections:

Creating Edge Effects

The outline of a character or shape is known as its edge. You can set the Edge surface to one of the predefined Edge types, such as Bevel, Ridge, or Tube. You can also adjust the thickness of the edge.

Once you have enabled an Edge surface for an object and set the Edge type and thickness, you can modify the properties of the Edge surface in a variety of ways. For example, you can enable lighting for the surface, change its color or opacity, or apply a texture or material to it.

You can create an Edge effect using property controls in the Effect Properties window or in the Edge area of the Quick Titles Properties window. For more information on using the Quick Titles Properties window to create an Edge effect, see "Creating and Modifying Edge Effects" on page 160.

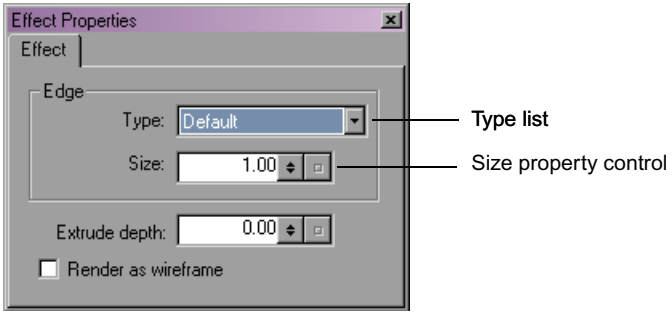
To create an Edge effect for an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Effect Properties window is not already open, select Window > Properties > Effect.

3. In the Edge area of the Effect Properties window, select an Edge effect from the Type list.



   Selecting an Edge type other than Default enables the Edge surface for the object and applies that Edge type. For a list of available Edge types with illustrations of their appearance, see the table that follows this procedure.

4. Adjust the thickness of the edge by using the Size property control.

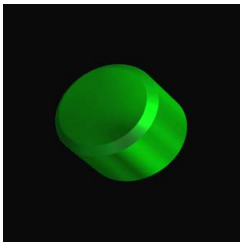
5. (Option) If you use an edge on a shape and the edge looks inverted, reverse the direction of the shape (as described in "Reversing the Direction of Shapes" on page 377).

6. (Option) Use the controls in the Surfaces Properties window to modify the properties of the Edge surface until you achieve the look you want.

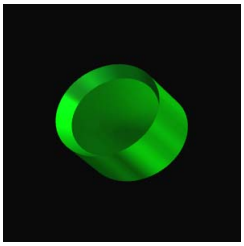
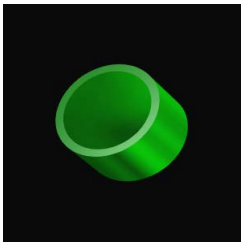
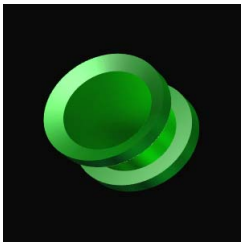
An object that uses an Edge effect will not have antialiased edges in the Monitor window. Preview a frame on screen or render frames out to disk to view antialiased edges.

For a glow effect, use a colored shadow (as described in "Using Shadows to Simulate Glows" on page 520).

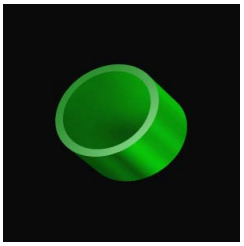
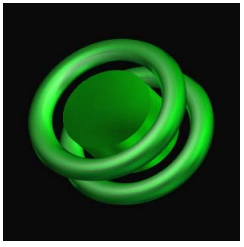
Edge Effect Types

Name	Example
Bevel	
Bevel Ridge	
Bevel Wide	
Box	

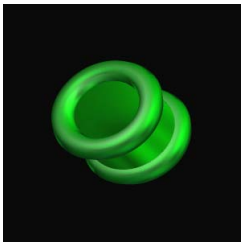
Edge Effect Types (Continued)

Name	Example
Chisel	
Default	No edge is visible when the Edge Type is set to Default.
Emboss	
Flat Border	
Frame	

Edge Effect Types (Continued)

Name	Example
MC Border	
Neon	
Ridge	
Ridge Inset	

Edge Effect Types (Continued)

Name	Example
Round	
Tube	

Extruding Objects

By default, new objects are two dimensional. You can change the depth or thickness of an object by extruding it. To see the extruded surface that results, you must enable the surface and change its properties to distinguish it from other surfaces (for example, change its color or enable lighting). Depending on the initial orientation of the object, you might also need to rotate it in order to see its Extrude surface.

Once you have extruded an object, you can modify the properties of the Extrude surface in a variety of ways. For example, you can enable lighting for the surface, change its color or opacity, or apply a texture or material to it.

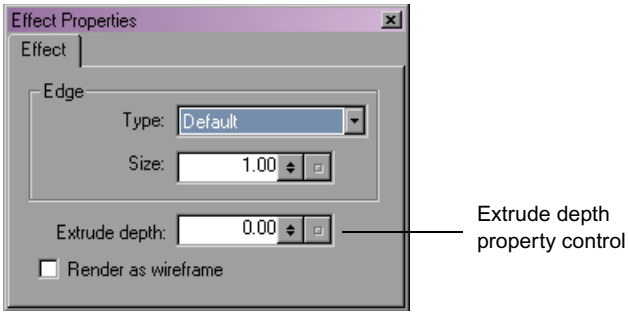
To extrude an object and view the Extrude surface:

1. Select the object.

   For more information, see “Selecting and Deselecting Objects” on page 280.

2. If the Effect Properties window is not already open, select Window > Properties > Effect.

3. Adjust the “Extrude depth” value.



4. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.
5. Select Extrude from the Type list.
6. Select “Enable surface.”
7. Use the property controls in the Surfaces Properties window to adjust property values for the Extrude surface as necessary to distinguish it from other surfaces on the object.

   For example, enable lighting for the Extrude surface, or change its color.
8. If necessary, use the Rotate tool to rotate the object so that the Extrude surface is visible.

   For more information, see “Rotating Objects” on page 300.
9. (Option) Continue to adjust property values for the Extrude surface until you achieve the look you want.

For objects that also use an edge, adjusting the extrude depth does not affect the edge. For information on editing the material used for the Edge surface of an object, see “Applying Materials to Object Surfaces” on page 455.

Drawing Objects as Wire Frames

You can draw objects as wire frames to help you focus on the placement of objects in a scene, but not on how the objects appear. You can also use wire frames to give an object an interesting effect. The difference between a wire frame and an outline Edge effect is that the wire frame is the same thickness regardless of the object's size. Edge effects change thickness as the object changes size.

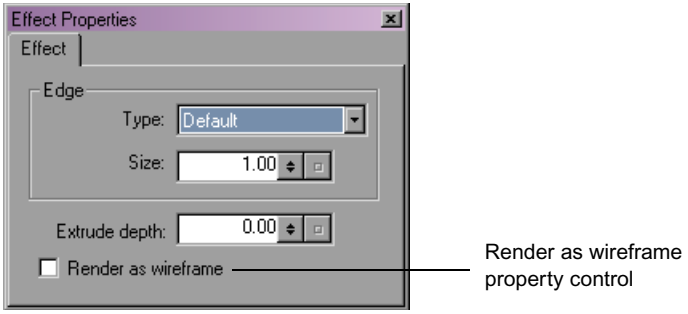
To draw an object as a wire frame:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Effect Properties window is not already open, select Window > Properties > Effect.

3. Select "Render as wireframe."



The wire frame is drawn using the object's Main material.

Drawn normally

Drawn as a wire frame

Blurring Moving Objects

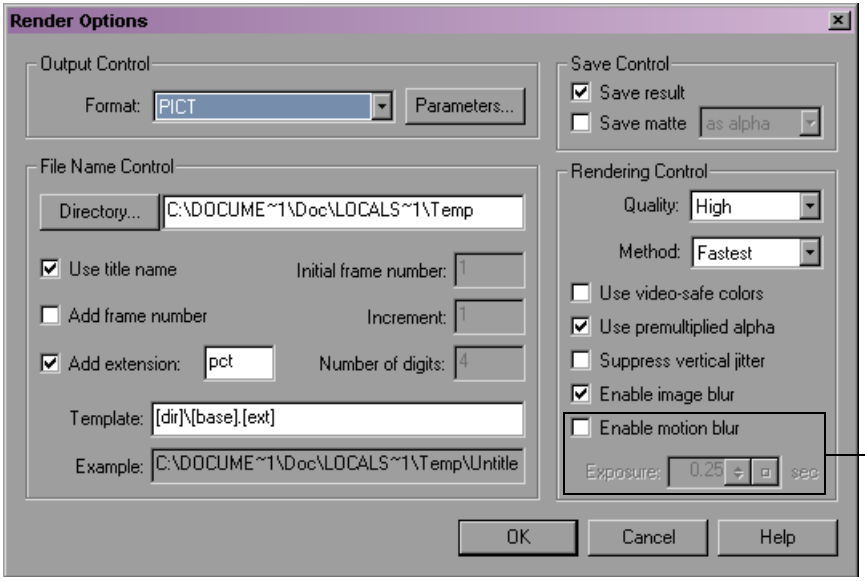
In real life, an object that moves quickly appears blurred. Imagine a camera taking a picture of the moving object. The object in the picture appears blurred because the object moved during the short time that the camera's shutter was open. If the shutter was open for a shorter time, the object would appear sharper.

Marquee can simulate motion blurring for a more realistic animated scene, but with an increase in rendering time.

To enable motion blur:

1. Select Render > Options.

   The Render Options dialog box appears.



2. In the Rendering Control area, do the following:

   a. Select "Enable motion blur."

   b. Adjust the Exposure value (expressed in fractions of a second).

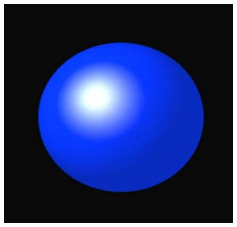
      For more information on the exposure setting for motion blur, see "Motion Blur" on page 567.

c. (Option) Select an option from the Quality list to adjust the quality of the blurred motion.

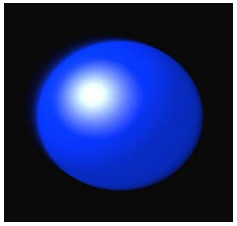
   For more information on quality levels, see Table on page 267.

3. Click OK.

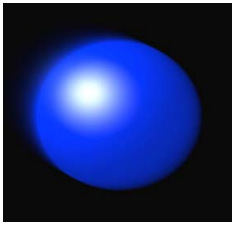
The following illustrations show typical motion blur effects for a sample object.



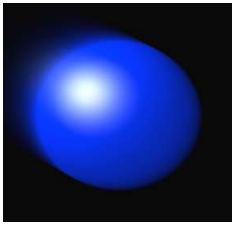
Motion blur deselected



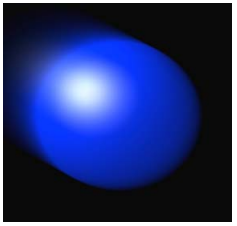
Exposure = 0.25



Exposure = 0.50



Exposure = 0.75



Exposure = 1.00

Motion blur selected

The motion blur effect applies to all objects in the title, over the duration of the title. Also, if the object changes materials (such as its color) or its visibility abruptly over its duration, these changes will appear faded or smoothed out as a result of the motion blur effect.

Although you can set a maximum quality for blurred objects, objects that move very fast will not simulate blurred motion as well as slower-moving objects. You might need to experiment with exposure time and quality settings to get the results you want.

Chapter 17
Working with Lights and Shadows

This chapter describes how you modify the appearance of reflective materials using light sources and how you add shadows to objects. Use light sources to add a spotlight to text, enhance the edges of geometric shapes, or lighten or darken areas of a scene. Use shadows to add depth to an object or to make text on a similarly colored background easier to read.

Click here to see a Flash test movie.

This chapter includes the following sections:

Understanding Light Sources

Light sources are points in three-dimensional space that emit light, causing objects with materials that can be affected by light to appear illuminated. (For more information on materials, see the chapter "Working with Surfaces and Materials" on page 451.) You create and modify light sources using the Light tool.

You specify the location of light sources relative to objects in the scene using light source objects, which exist above all other objects in the scene.

Different types of lights illuminate a scene in different ways.

- *Infinite:* Light source is very far away, so that the light rays are essentially parallel to each other. An example of an infinite light source is the sun. This type of light source is also known as a directional light.
- *Local:* The light rays extend from a single point evenly in all directions. An example of a local light source is a candle. This type of light source is also known as a point or omnidirectional light.
- *Spot:* The light rays extend from a single point in a cone shape, casting light on a specific oval or circular area of a scene.

For Local and Spot lights, the intensity of the light decreases in proportion to the distance from its location.

Each Marquee title contains a white Local light by default. If you enable lighting for all or part of a title object and you have not created any new lights, this default light affects the areas for which you have enabled lighting.

No lighting

Infinite

Local

Spot

Adding, Moving, and Removing Light Sources

You add, move, and remove light sources using the Light tool. You can have up to eight light sources. Each light source is numbered in the Monitor window.

To add a light source to a scene:

1. Click the Light tool.

   The current light sources appear in the Monitor window.

2. Do one of the following:

   - Alt+click (Windows) or Option+click (Macintosh) at the location for the new light source.
   - Right-click (Windows) or Ctrl+click (Macintosh) above the location for the new light source, and select Add Light.

   A new light source appears at the pointer location. By default, the light source is a white Local light.

A bright or focused spot light shining on a material might produce distinct triangular patterns on the surface of objects, known technically as under-tessellation. To reduce this problem, change the light type, widen the size of the spot light, decrease the intensity of the light, or increase the rendering quality in the title.

To move a light source:

1. Click the Light tool.
2. Select the light source you want to move.
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Do one of the following:
   - Drag the selected light source to the intended location.
   - If the Transform Properties window or the Light Properties window is not already open, select Window > Properties > Transform or Window > Properties > Light, and then adjust the Position values.

The lighting of the scene changes accordingly. However, shadows on objects do not change their offsets from their objects. You must modify the shadow offsets manually if you want to create more realistic shadow effects.

To remove a light source:

1. Click the Light tool.
2. Select the light source you want to remove.
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Do one of the following:
   - Right-click (Windows) or Ctrl+click (Macintosh) the light source, and select Delete Lights.
   - Press the Delete key.

Editing Light Sources

Each light source has a specific visibility, type, and color. You can change these properties and animate them over time. You change light source properties in the Info Properties, Transform Properties, and Light Properties windows. You can adjust a light source's property curve in the Timeline window.

Editing Light Sources in the Properties Windows

To edit a light source in the Info Properties, Transform Properties, or Light Properties window:

1. Click the Light tool.
2. Select the light source you want to edit.
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Adjust the light source properties using the appropriate procedures from the following sections:
   - Enabling and Disabling Light Sources
   - Changing Light Types

- Using Colored Lights
- Changing the Intensity of Light Sources
- Positioning Light Sources in the Scene
- Adjusting Spot Light Properties
- Identifying Light Sources

The Info Properties, Transform Properties, and Light Properties windows contain different sets of light source properties.

All selected light sources use the modified properties.

Editing Light Source Property Curves in the Timeline Window

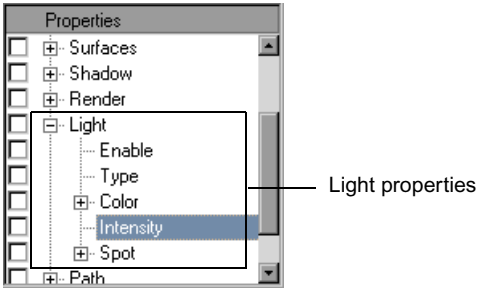
You can edit property curves for light sources in the Timeline window the same way that you edit property curves for other objects.

To edit a light source's property curve in the Timeline window:

1. If the Timeline window is not already open, select Window > Timeline.
2. If you are viewing the tracks of objects within a text box, deck, or page, collapse the container object until the Scene track is the current container track.
3. Select View > Lights.

   Each light source in the scene is represented as a track in the Timeline, immediately above the Scene track. Each light track is labeled using the light source's name (see "Identifying Light Sources" on page 508).

4. Click the Show Curves button for the light source's track to view its property curve graph.
5. In the Properties list on the left of the Timeline window, expand the Light properties and then select a Light property.



For more information on the properties of a light source, see the table "Light Properties" on page 317.

6. Adjust the property curve for the selected property.

   For more information, see "Animating Properties over Time" on page 421

The position properties for lights are controlled by the Transform Position property curves.

Enabling and Disabling Light Sources

You can enable and disable light sources to make them affect or not affect the objects in the scene. A light source that is disabled is equivalent to a nonexistent light source. You can enable or disable lights either in the Light Properties window or by using shortcut menu commands.

To enable a light source:

1. Click the Light tool.
2. Select the light source you want to enable:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Do one of the following:
   - If the Light Properties window is not open, select Window > Properties > Light, and then select "Enable light."
   - In the Monitor window, right-click (Windows) or Ctrl+click (Macintosh) the light source, and select Enable Lights.

To disable a light source:

1. Click the Light tool.
2. Select the light source you want to disable:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Do one of the following:

- If the Light Properties window is not open, select Window > Properties > Light, and then deselect “Enable light.”
- In the Monitor window, right-click (Windows) or Ctrl+click (Macintosh) the light source, and select Disable Lights.

Changing Light Types

A light source’s type affects how it illuminates the scene. A light source can be an Infinite, Local, or Spot light, as described in “Understanding Light Sources” on page 497.

To change a light source’s type:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. Do one of the following:
   - If the Light Properties window is not open, select Window > Properties > Light, and then select a light type from the Type list.
   - In the Monitor window, right-click (Windows) or Ctrl+click (Macintosh) the light source, and select Light Type > *type of light*.

Using Colored Lights

By default, light sources emit a white light. However, you can change the color of the light to give lit objects a colored tint.

To change the color emitted from a light source by dragging:

- Drag a color from any active color well directly onto the light source in the Monitor window.

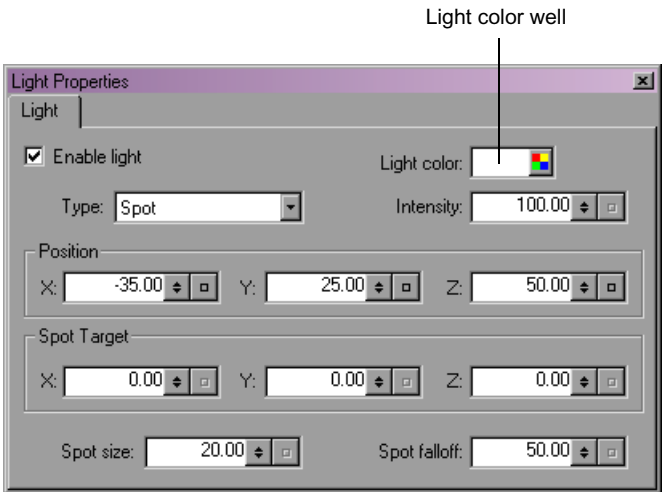
To change the color emitted from a light source using the Light Properties window:

1. Click the Light tool.
2. Select the light source you want to edit:

- To select a single light source, click it.
- To select multiple light sources, Shift+click them.
- To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.

3. If the Light Properties window is not open, select Window > Properties > Light.
4. Select a color from the Light color well.

   For more information on selecting a color value, see "Selecting Color Values" on page 205.



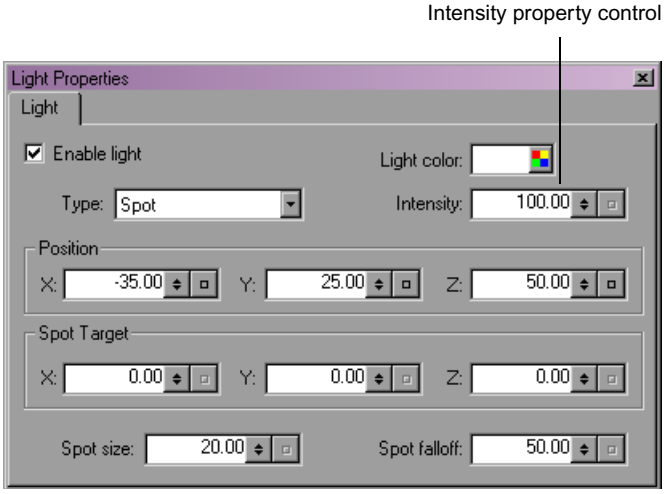
Changing the Intensity of Light Sources

The intensity of a light source controls how brightly it illuminates the scene.

To change the intensity of a light source:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.

3. If the Light Properties window is not open, select Window > Properties > Light.
4. Adjust the Intensity value.



A value of 0 produces no intensity, and light is effectively disabled. A value of 100 is normal intensity. You can set Intensity to values above 100 for highly intense lights or below 0 for “negative light,” where light is absent.

Positioning Light Sources in the Scene

Light sources, like other objects, can exist at different locations in the scene.

To position a light source in the scene:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the window you want to use for adjusting the position of the light source is not open, do one of the following:

- To open the Light Properties or Transform Properties window, select Window > Properties > Light or Window > Properties > Transform.
- To open the Timeline window, press Ctrl+T (Windows) or ⌘+T (Macintosh).

4. Do one of the following:
   - In the Light Properties or Transform Properties window, adjust the Position values.
   - In the Timeline window, adjust the Transform Position property curves.

     For more information, see "Editing Light Source Property Curves in the Timeline Window" on page 501.

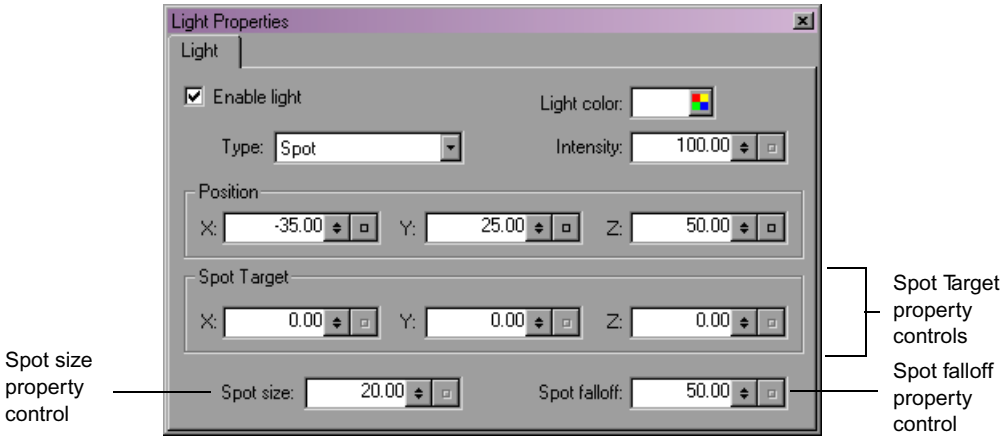
Although you can adjust the Z position value, you cannot move light sources behind other objects in the scene.

Adjusting Spot Light Properties

Spot lights have additional properties that you can control.

To position the target of a spot light:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the Light Properties window is not open, select Window > Properties > Light.
4. Adjust the Spot Target values.



When you place the target of a spot light near or at the same position as the spot light itself, the light focuses on a specific area of the scene, which can cause lit materials to appear with triangular patterns on them. This problem is known as under-tessellation and is caused by the object using the lit material not being adequately generated (subdivided into polygons) to properly create a smooth illuminated surface. To control the tessellation setting, see "Setting the Quality Level for Viewing in the Monitor Window" on page 266.

To adjust the size of the area lit by a spot light:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the Light Properties window is not open, select Window > Properties > Light.
4. Adjust the "Spot size" value.

   Smaller values focus the spot light onto a small area; larger values light a larger area.

To adjust the amount of falloff or "decay" in the illumination on points farther away from the center of the spot light:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the Light Properties window is not open, select Window > Properties > Light.
4. Adjust the "Spot falloff" value.

   Smaller values produce little falloff, resulting in a larger intense region of light. Larger values produce a large falloff, resulting in a softer spread of light.

Identifying Light Sources

By default, new light sources are assigned a generic name of Light. When you view multiple light sources in the Timeline window, you will want to differentiate each light source. As you can do with other objects in the scene, you can change the name and attach a comment to light sources.

To change the name of a light source:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the Info Properties window is not open, select Window > Properties > Info.
4. Type a new name in the Name text box.

   You can name a light by its color (for example, Red Light), type (Intense Spot Light), behavior (Panning Local Light), or other characteristic. The name appears in the light source's track in the Timeline window.

To attach a comment to a light source:

1. Click the Light tool.
2. Select the light source you want to edit:
   - To select a single light source, click it.
   - To select multiple light sources, Shift+click them.
   - To switch the selection of a light source, Ctrl+click (Windows) or ⌘+click (Macintosh) the light source.
3. If the Info Properties window is not open, select Window > Properties > Info.
4. Type a new comment in the Comment text box.

Using Lights Effectively

Lights in Marquee, just as in real life, help illuminate a scene and give the objects in a scene a particular look. Improper placement or adjustment of lights can cause an unwanted effect and distract from the content in the scene.

To use lights effectively, place as few lights in a scene as necessary to avoid a bleached or washed-out appearance. Also, use appropriate light settings for the material you use. For example, if you use a concrete-looking material, do not make the material shiny or have a bright specular color.

If you include light sources in templates, be aware of the way Marquee handles light sources when you apply a template to a title. For more information, see "Working with Templates and Lights" on page 535.

Adding Shadows to Objects

Each object in a scene can include a shadow. You can control the shadow's location relative to the object and the shadow's appearance.

The location of an object's shadow in a 3D layer is controlled by the object's stacking order in the Timeline window, not by its position along the Z axis.

Understanding Shadows

A shadow is the projection of an object's outline onto a flat surface known as the shadow plane. Shadows can be a solid color or a texture (also known as a shadow map) from the Textures Library window.

An object's shadow can be one of the following types:

- *Drop:* The shadow is located on the shadow plane, which is parallel to and always behind the object. Drop shadows are not affected by light sources in the scene.
- *Local:* The shadow is located on the shadow plane, which is either hinged to a side of the object's bounding box or is parallel to the object.
- *Projected:* The shadow is cast from one of the light sources in the scene onto the shadow plane. By default, the shadow plane is hinged to the bottom of the scene.

You can also simulate depth shadows of the kind available in the classic Avid Title tool and simulate glow effects using the shadow controls. For more information, see "Simulating Depth Shadows" on page 518 and "Using Shadows to Simulate Glows" on page 520.

Showing and Hiding Shadows

By default, objects do not cast shadows. When you enable an object's shadow, you can simulate the effect of casting a shadow onto a simple plane. You do not have to enable lighting on the surfaces of an object for the object to cast a shadow.

To show an object's shadow:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

   You can enable shadows for more than one object at a time.

2. Do one of the following:

   - To show a drop shadow only, in the Quick Titles Properties window, select "Show drop shadow."

     If the Quick Titles Properties window is not open, select Window > Quick Titles.

   - To show any type of shadow, in the Shadow Properties window, select "Show shadow."

     If the Shadow Properties window is not open, select Window > Properties > Shadow.

By default, the object's shadow appears gray (black shadow with a 50 percent opacity) and, for drop shadows, is positioned to the lower right of the object.

If the characters in a static text box are casting a shadow, you might want to unclip the text box to keep the shadow from being clipped. For more information on unclipping a text box, see "Clipping Text" on page 358.

Container objects (text objects, decks, and pages) do not cast shadows. To cast shadows behind these objects, create a transparent shape the same size as the container, place it behind the container, and enable the shape's shadow. If all you want is the shadow, disable the Main surface for the shape in the Surfaces Properties window.

To hide an object's shadow:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

   You can enable shadows for more than one object at a time.

2. Do one of the following:

   - For a drop shadow only, deselect "Show drop shadow" in the Quick Titles Properties window.

     If the Quick Titles Properties window is not open, select Window > Quick Titles.

   - Deselect "Show shadow" in the Shadow Properties window.

     If the Shadow Properties window is not open, select Window > Properties > Shadow.

Changing the Location of Shadows

Use the controls in the Quick Titles Properties window or the Shadow Properties window to adjust the location of an object's shadow.

For drop shadows, you can adjust the offset of the shadow from the object. For local and projected shadows, you can adjust the location and orientation of the shadow plane.

Shadows and objects cannot intersect, even if they are in a 3D layer.

To create a drop shadow larger than an object, make a larger copy of the object whose Main material is hidden, add a shadow to the copy, and move the copy behind the original.

To change the offset of a drop shadow from the object casting it:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - In the Quick Titles Properties window, click in the Shadow tool and drag.

     As you drag, you relocate the shadow box beneath the sample object in the tool, and the shadow on the selected object moves to the same relative position.

If the Quick Titles Properties window is not open, select Window > Quick Titles.

- In the Shadow Properties window or in the Quick Titles Properties window, adjust the X offset and Y offset values.

  If the Shadow Properties window is not open, select Window > Properties > Shadow. If the Quick Titles Properties window is not open, select Window > Quick Titles.

  Negative offsets move the shadow toward the left and bottom sides of the object. Positive offsets move the shadow toward the right and top sides of the object.

X offset = –1; Y offset = 1

X offset = 1; Y offset = 1

X offset = –1; Y offset = –1

X offset = 1; Y offset = –1

To change the location and orientation of local and projected shadows cast by an object:

1. Select the object.

   For more information, see “Selecting and Deselecting Objects” on page 280.

2. If the Shadow Properties window is not open, select Window > Properties > Shadow.

3. (Projected shadows only) Select the light source to use to create the shadow from the “Projected from” list.

   Although all possible light sources are in the list, only those light sources actually available in the scene will produce a shadow. For example, if a scene contains three lights and you select the fourth light source, no shadow will appear. This behavior is equivalent to disabling a light source.

Disabled light sources still produce and affect projected shadows.

When the Light tool is active, the light sources in the scene are numbered. These numbers correspond to the light numbers in the “Projected from” list.

4. In the Hinge area, adjust the location and orientation of the shadow plane relative to the object using the following controls:

   - *Side:* The shadow plane can be attached (hinged) to a side (Left, Right, Bottom, Top) of the object’s bounding box or parallel to (Back) the object.

   - *Angle:* The shadow plane can be oriented a certain number of degrees away from the object plane.

   If you set the shadow side to Back, the Angle rotates the shadow around the Z axis.

   - *Offset:* The shadow plane can be positioned away from the object. For local shadows, the offset controls the distance of the shadow plane away from the hinge point. For projected shadows, the offset controls the movement of the shadow plane along global axes.

Offset = –0.01 Offset = 0.00 Offset = 0.02 Offset = 0.07 Offset = 0.11

- *Skew* (Local shadows only)*:* The shadow plane can be slanted along its local X axis.

Skew = 0.60 Skew = 0.30 Skew = 0.00 Skew = 0.45 Skew = 0.90

Changing the Appearance of Shadows

Use the controls in the Quick Titles Properties window or the Shadow Properties window to adjust the opacity, softness, color, and texture of an object's shadow.

Controls in the Quick Titles Properties window are available only when the shadow type is Drop.

To change the opacity of a shadow cast by an object:

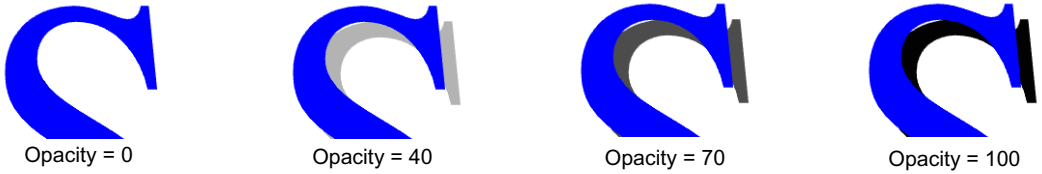
1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. In the Quick Titles Properties window or the Shadow Properties window, adjust the Opacity value.

   If the Quick Titles Properties window is not open, select Window > Quick Titles. If the Shadow Properties window is not open, select Window > Properties > Shadow.

An opacity of 0 produces a fully transparent shadow. An opacity of 100 produces a fully opaque shadow.



To change the softness of a shadow cast by an object:

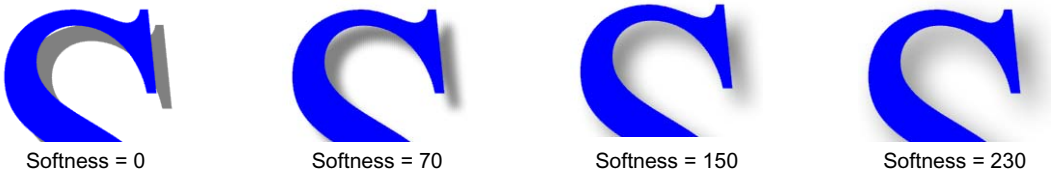
1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. In the Quick Titles Properties window or the Shadow Properties window, adjust the Softness value.

   If the Quick Titles Properties window is not open, select Window > Quick Titles. If the Shadow Properties window is not open, select Window > Properties > Shadow.

   A shadow can range from very sharp edges and corners (values closer to 0) to very soft edges and corners (values closer to 250). The softer a corner, the more rounded it appears.



If you have soft shadows on large objects or on a large number of small objects (such as many text characters), you might see a decrease in performance in the Monitor window because soft shadows take longer to redraw than other objects. For example, objects might be slow to redraw when you move them. You can decrease the Quality setting to improve performance. For more information, see "Setting the Quality Level for Viewing in the Monitor Window" on page 266.

To change the color of a shadow cast by an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. Do one of the following:

   - In the Quick Titles Properties window, select a color using the color well at the bottom of the Shadow tool.

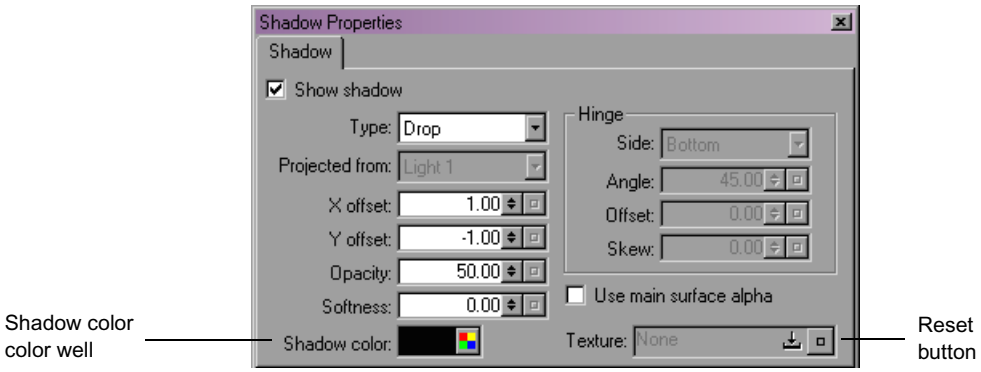
     If the Quick Titles Properties window is not open, select Window > Quick Titles.

     For more information on selecting a color value, see "Selecting Color Values" on page 205.

   - In the Shadow Properties window, select a color from the "Shadow color" color well.

     If the Shadow Properties window is not open, select Window > Properties > Shadow.

     For more information on selecting a color value, see "Selecting Color Values" on page 205.



3. (Option) If a texture appears in the Texture drop pocket, click the Reset button next to the drop pocket to remove the texture.

   The selected object's shadow color changes to the color you selected.

To use a texture instead of a color for the shadow cast by an object:

1. Select the object.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Textures Library window is not open, select Window > Library > Textures.

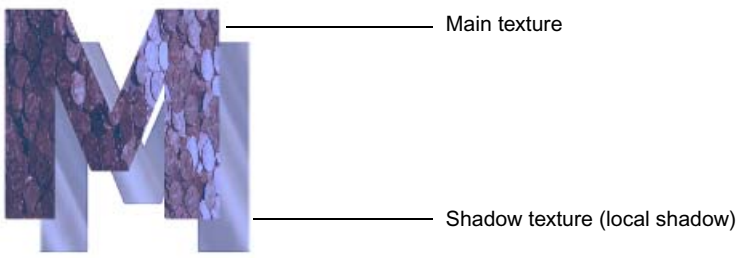
3. If the Shadow Properties window is not open, select Window > Properties > Shadow.

4. Drag a texture from the Textures Library window or another Texture drop pocket onto the Texture drop pocket in the Shadow Properties window.

   If the object uses a four-channel (color plus alpha) texture, you might want the shadow to also appear to be affected by the alpha of the texture. To do this, select "Use main surface alpha" in the Shadow Properties window. For more information, see "Applying Shadows to Imported Images" on page 521.

   Alternatively, use a single-channel, grayscale texture of the alpha channel.

5. To tint the texture, select a color from the "Shadow color" color well. Otherwise, set the shadow color to white.



Simulating Depth Shadows

Depth shadows that extend back from the edges of a title object are a directly available shadow type in the Title tool. Although you cannot create depth shadows directly in Marquee, you can simulate them by changing the title's Projection setting to Orthographic, rotating the title object slightly, and modifying the Extrude surface of the object. You cannot use this technique if you have other objects in the title that require the title's Projection setting to be Perspective. For more information, see "Projection Preferences" on page 255.

To simulate a depth shadow:

1. Select File > Preferences > Current Title (Windows) or Marquee > Preferences > Current Title (Macintosh).
2. Click the Projection tab.
3. In the Projection area, select Orthographic.
4. Click OK.
5. Select the object to which you want to apply the shadow.

   For more information, see “Selecting and Deselecting Objects” on page 280.
6. If the Effect Properties window is not already open, select Window > Properties > Effect.
7. Adjust the “Extrude depth” value.

   The larger the value you set for the Extrude depth, the further back the shadow will extend. A good starting value is 80. You will not see the extruded surface until you rotate the object, as described in step 9.
8. If the Transform Properties window is not already open, select Window > Properties > Transform.
9. Adjust the X and Y Rotation values by small amounts.

   For example, an X Rotation value of –5 and a Y Rotation value of 5 result in a depth shadow that extends down and to the right from the object. You might need to experiment to find the values that work best for the look you want.
10. If the Surfaces Properties window is not already open, select Window > Properties > Surfaces.
11. In the Surfaces Properties window, do the following:
    a. From the Surface list, select Extrude.
    b. Select “Enable surface.”
    c. Use the Base color well to set the color you want for the depth shadow.

       For more information on setting color values, see “Selecting Color Values” on page 205.

The following illustration shows a depth shadow that uses the suggested values from the previous procedure.

Using Shadows to Simulate Glows

Although Marquee does not have a glow Edge effect, you can use a shadow to simulate a colored glow.

To simulate a colored glow:

1. Select the object that you want to glow.

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Shadow Properties window is not already open, select Window > Properties > Shadow.

3. Adjust the following shadow property values:

   - *Show shadow:* selected
   - *Type:* Drop
   - *X offset:* 0
   - *Y offset:* 0
   - *Opacity:* 50 or higher

     Shadow opacity depends on the shadow color you use.

   - *Softness:* 50 or higher

     The higher the softness, the longer the shadow takes to render. To reduce the performance lag, use the lowest level of softness required for a particular effect.

   - *Shadow color:* glow color

Shadow-based glows do not work well for semitransparent objects because you can see the shadow behind the semitransparent areas.

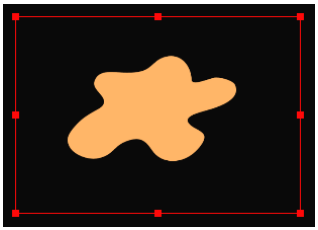
The following illustration shows a text glow created using the previous procedure.

Applying Shadows to Imported Images

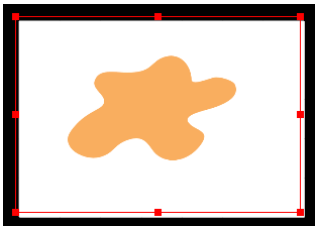
When you import a graphics image into a title, you can apply a shadow to that image in the same way that you can apply a shadow to an object created within Marquee.

If the graphics file does not have an alpha channel, the shadow will have the same shape as the bounding box of the graphic. If the graphics file has an alpha channel, however, you can choose to use that alpha information to control the shape of the shadow. For example, a logo graphic with irregular edges or holes will have a shadow of the same shape.

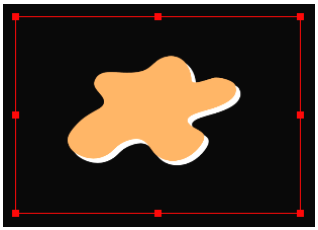
The following illustrations show an example of this behavior.



The bounding box shows the edges of this imported graphic, which is transparent except for the irregular shape.



A drop shadow is enabled for the graphic, but “Use main surface alpha” is not selected, so the shadow is the rectangular shape of the entire object (the shape of the bounding box) and is visible through the transparent parts of the graphic. The shadow is white and 100% opaque to make the example clearly visible.



A drop shadow is enabled for the graphic, and “Use main surface alpha” is selected, so the shadow is the shape of the non-transparent part of the graphic.

To use alpha channel information to control the shape of the shadow for an imported graphic:

1. Select the graphic.

   For more information, see “Selecting and Deselecting Objects” on page 280.

2. If the Shadow Properties window is not already open, select Window > Properties > Shadow.

3. In the Shadow Properties window, select “Use main surface alpha.”

Chapter 18
Working with Styles

With so many properties you can set for each object, the process of adjusting the right ones to get the intended result can become time-consuming. This chapter describes how you can use styles to adjust multiple properties at the same time, saving you time and effort.

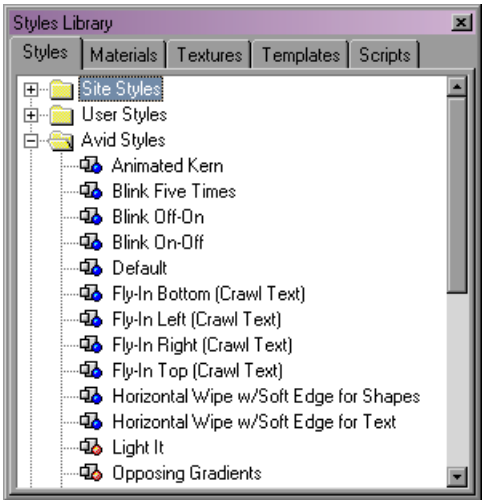
This chapter includes the following sections:

Understanding Styles

In Marquee, a style is a collection of one or more predefined properties, each of which can be animated. Think of a style as a command that automatically sets specific properties for one or more objects. A style can be as simple as one that sets an object to a red color or as complex as one that defines the look of several different surfaces for an object and positions the object within the safe title area. Styles are stored in the Styles library and viewed in the Styles Library window.

To open the Styles Library window:

- Select Window > Library > Styles.



Styles are organized using the standard Marquee Library folder structure, with Avid Styles, Site Styles, and User Styles folders as well as a folder for each open title. For more information, see "Marquee Libraries" on page 173.

Each style has an icon beside it in the Styles Library window. The icon for a style includes either a blue dot or an orange dot to indicate the complexity of the style and the amount of time it is likely to take to render a title including objects to which you have applied the style.

- Styles with blue-dot icons contain properties that change over time. If you apply these styles to title objects, the titles will take a relatively long time to render. If you are saving such a title to a bin in your Avid editing application, it will be saved as an Animated Title.

- Styles with orange-dot icons contain properties that do not change over time. If you apply these styles to title objects, the titles will render comparatively quickly. If you are saving such a title to a bin in your Avid editing application, and you do not have animated properties elsewhere in the title, it will be saved as a static title.

Creating and Deleting Styles

Create a new style when you want to easily apply common sets of properties to multiple objects. The best way to create a new style is from the property values of an existing object. Delete styles you no longer need.

You can also create a new style based on the materials applied on an object. For more information, see "Copying Materials and Textures from Other Locations" on page 483.

To create a new style:

1. Select the object whose property values you want to save as a style.

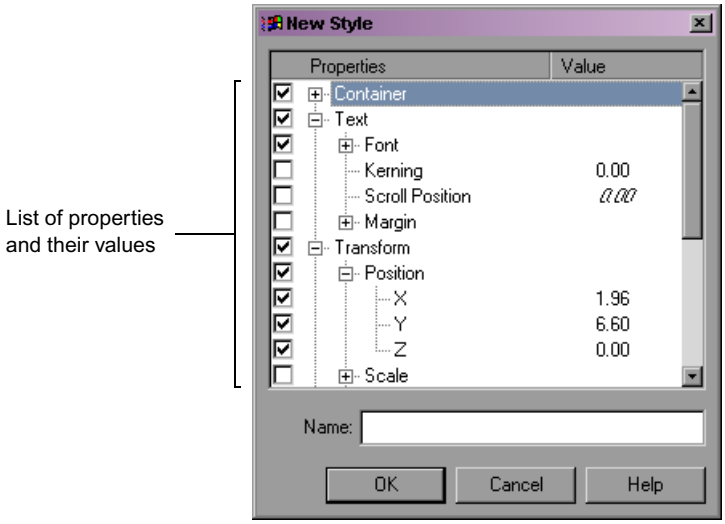
   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Styles Library window is not already open, select Window > Library > Styles.

3. Right-click (Windows) or Ctrl+click (Macintosh) the folder into which you want to place the new style definition, and select New Styles.

   You cannot place a new style into the Avid Styles folder. If you right-click (Windows) or Ctrl+click (Macintosh) an individual style definition, the new style will be placed in the same folder as the selected definition.

   The New Style dialog box appears.



   The Properties list shows all the properties available in the Properties windows. The property values of the object you selected in step 1 appear in the list, and any properties with non-default values are selected (have check marks). (If you did not select an object in step 1, the list uses the

default property values for each property, and none of the properties are initially selected.) For properties that are animated (change value over time), the property value is in italic.

If you are basing a new style on a container object such as a text object, the style consists of all the non-default properties for the container object. If you have modified text properties such as color, font, or font size by selecting text within the text object, those property values are not included in the style. If you want text properties to be included in a style based on a text object, make sure that you apply those properties to the entire text object, for example, by changing the font with the text object selected using the Edit tool. For more information, see "Selecting and Deselecting Text" on page 332 and "Formatting Text" on page 336.

You can create a style that describes the motion of a light source across the scene, and then apply the style to other light sources.

4. (Option) If necessary, modify the set of properties to use in the new style.

   In particular, you might want to do the following:

   - Deselect Container and Transform properties. If you leave these properties selected, they will size and position an object to default values when you apply the style. In most circumstances, you do not want to resize or reposition an object when you apply a style.
   - Select any properties whose default values you do want to use when you apply the style. For example, you might want to select the Surfaces > Main > Lighting > Enabled property so that its default value (Off) is applied with the style. This ensures that the Main surface of the object to which you apply the style is not lit, regardless of the lighting settings elsewhere in the title.

   For more information see "Editing Styles" on page 527.

5. Type a name for the new style in the Name text box.

   Marquee allows multiple styles with the same name. To avoid confusion, do not use a name that already exists unless you are replacing an old style with a new one.

6. Click OK.

   The new style appears in the folder you selected in the Styles Library window.

To delete a style:

- Right-click (Windows) or Ctrl+click (Macintosh) the style in the Styles Library window, and select Cut or Delete.

If you previously applied the deleted style to an object, that object retains its properties. The object does not change.

Applying Styles to Objects

Apply a style to an object to modify one or more properties of the object. Styles define the properties affected.

To apply a style to an object:

1. Select the object.

   For more information, see “Selecting and Deselecting Objects” on page 280.
2. If the Styles Library window is not already open, select Window > Library > Styles.
3. Double-click the style you want to apply to the object.

Editing Styles

You can change the definition of a style by adding properties to or removing properties from the style. You can also rename a style.

You can modify some of the property values for a style directly in the Properties list that displays in the Edit Style dialog box. For example, you can change a numeric value such as the font size or a value that is simply On or Off such as an “Enable lighting” value.

However, you cannot change all values in this way. You cannot change the Font name value, for example, and you cannot change values for properties that are animated. Also, although color values can be changed in the Edit Style dialog box, they appear in the Properties list as numeric RGB values that are difficult to modify quickly and accurately.

If you want to make changes to the definition of a style that cannot be made directly in the Edit Style dialog box, apply the style to a temporary object, edit that object using standard procedures (for example, in the Properties windows or the Timeline window), and then save those properties as a new style.

After you apply a style to an object, changes you make to the style do not affect the object. Marquee does not permanently associate an object with a style that has been applied to it.

To add properties to or remove properties from a style:

1. If the Styles Library window is not already open, select Window > Library > Styles.
2. Right-click (Windows) or Ctrl+click (Macintosh) the style in the Styles Library window, and select Edit.

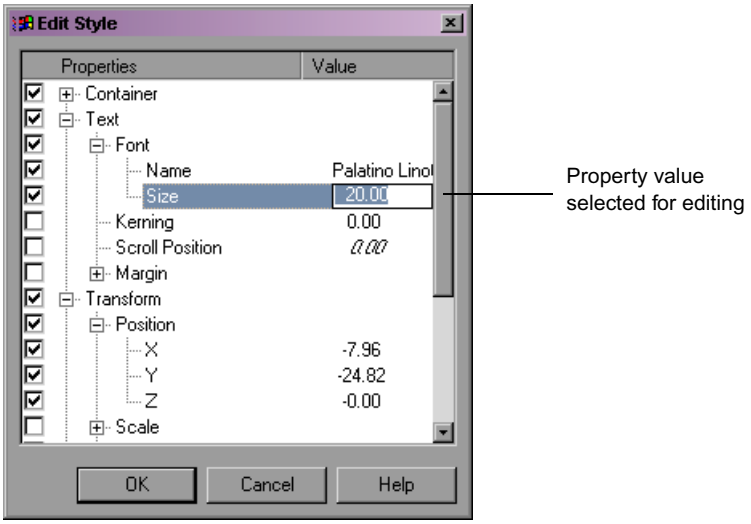
   The Edit Style dialog box appears. A check mark appears in the check box to the left of any property currently included in the style.
3. If necessary, click the Plus Sign (+) icons (Windows) or triangular openers (Macintosh) beside any property categories that you need to expand to see all the properties you want to modify.
4. Click the check box next to any properties you want to add to or remove from the style.

   If you check a new property to add it to the style, its initial value is the standard default value for that property, as listed in "Properties Windows and Their Controls" on page 305.
5. Click OK.

To modify property values for a style in the Edit Style dialog box:

1. If the Styles Library window is not already open, select Window > Library > Styles.
2. Right-click (Windows) or Ctrl+click (Macintosh) the style in the Styles Library window, and select Edit.

   The Edit Style dialog box appears. A check mark appears in the check box to the left of any property currently included in the style.



3. If necessary, click the Plus Sign (+) icons (Windows) or triangular openers (Macintosh) beside any property categories that you need to expand to see all the properties you want to modify.
4. To modify a property value, do the following:
   a. Click the property's name.
   b. Click the property value.

      If the value does not appear in an editable field, it cannot be modified directly in the Edit Style dialog box.
   c. Type a new value.

Do not modify animated property values in the Edit Style dialog box. Animated property values appear in italic in the Value column.

5. Click OK.

To modify property values for a style by creating a temporary object:

1. Create a temporary object in the scene.
2. Select the temporary object.

   For more information, see "Selecting and Deselecting Objects" on page 280.
3. If the Styles Library window is not already open, select Window > Library > Styles.

4. Double-click the style you want to modify to apply it to the selected object.
5. Adjust the properties of the selected object.
6. Create a new style based on the selected object.

   For more information, see "Creating and Deleting Styles" on page 524.

   Be sure to select only those properties that you want in the style and to name the style appropriately. If you are sure you want to replace the old style completely, you can use the same name as the old style (Marquee allows you to use identical names for more than one style), and then delete the old style. Alternatively, you can type a new name to distinguish the new style from the previous style.
7. Delete the temporary object.

To rename a style:

1. If the Styles Library window is not already open, select Window > Library > Styles.
2. Do one of the following:
   - Right-click the style you want to rename, and select Rename.
   - (Windows only) Click the name of the style you want to rename, and then click it a second time.
   - (Macintosh only) Click the name of the style you want to rename, then wait a moment until the name becomes editable.

   The name appears in an editable field.
3. Type the new name for the style.

   Renaming a style does not create a new style.

Chapter 19
Working with Templates

You often need to create multiple titles that have the same set of title objects with the same appearance, for example, to maintain the look that has been established for a particular program. This chapter describes how you can save title objects and their properties as templates that you can then apply to new titles.

This chapter includes the following sections:

Understanding Templates

A Marquee template is a library element that defines one or more title objects complete with their property values. Templates can include any combination of objects and properties, including light sources and animation. When you apply a template to a title, Marquee adds all the title objects in the template to the title. Any existing objects in the title remain unchanged.

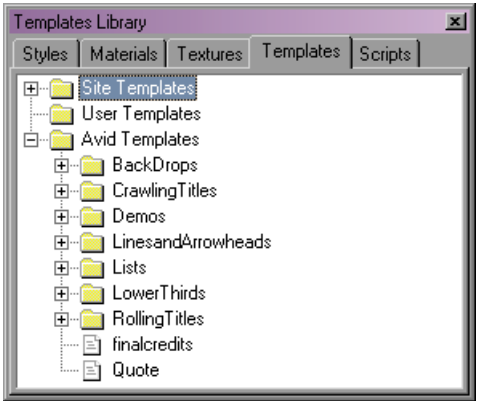
Once you have applied a template to a title, you can modify the title objects as necessary. For example, you can change the text content of an object so that it is appropriate for its new context.

You can apply more than one template to the same title. Each time you apply a new template, Marquee adds the objects from that template to the title, without altering any existing objects in the title. This provides a great deal of flexibility in terms of what a template can contain. You can create a template that contains all the objects necessary for an overall title look, for example, all the text and graphic objects necessary for a lower-third title. Alternatively, you can create a template that contains just a single object that you might want to reuse in a variety of contexts, for example, a logo or a background.

You save templates and apply templates to titles in the Templates Library window. Templates are organized using the standard Marquee Library folder structure, with Avid Templates, Site Templates, and User Templates folders. For more information on Marquee libraries, see "Marquee Libraries" on page 173.

To open the Templates Library window:

- Select Window > Templates.



Saving and Deleting Templates

You can save a title as a template in either the Site Templates or the User Templates folder in the Templates library. You can also create new folders within the Site Templates and User Templates folders to organize your templates. You can delete templates that you no longer need.

You might want to lock the objects in a title before you save the title as a template, especially if the template is to be used repeatedly to create a standard look. Locked objects cannot be repositioned until they are unlocked. For more information, see "Locking and Unlocking Objects" on page 284.

To save the current title as a template:

1. If the Templates Library window is not already open, select Window > Templates.
2. Right-click (Windows) or Ctrl+click (Macintosh) the folder into which you want to place the new template or an existing template in that folder, and select Save As Template.

   If you select an individual template, the new template will be placed in the same folder as the selected template.

   The Save As Template dialog box appears.
3. Type a name for the template, and then click OK.

   The new template appears in the selected folder.

To create a new folder in the Templates Library window:

1. If the Templates Library window is not already open, select Window > Templates.
2. Right-click (Windows) or Ctrl+click (Macintosh) the folder into which you want to place the new folder or an existing template in that folder, and select New Folder.

   If you select an individual template, the new folder will be placed in the folder that contains the selected template.

   The Create Template Folder dialog box appears.
3. Type a name for the new folder, and then click OK.

   The new folder appears in the selected folder.

To delete a template:

1. If the Templates Library window is not already open, select Window > Templates.
2. Right-click (Windows) or Ctrl+click (Macintosh) the template you want to delete, and select Delete Template.

   A message box appears and asks you to confirm that you want to delete the template.

3. Click OK.

   Marquee deletes the template.

If you previously applied the deleted template to a title, that title retains its properties. The title does not change.

Applying Templates to Titles

You can apply a template to a new title (with no existing title objects) or to an existing title that already contains title objects. Applying a template adds the objects (and lights, if appropriate) from the template to the title without affecting any existing objects in the title.

To apply a template to a title:

1. Create a new title, or open an existing title.

   For more information, see "Creating Titles" on page 242 and "Opening Titles" on page 250.

2. If the Templates Library window is not already open, select Window > Templates.

3. Double-click the template you want to apply.

   Marquee applies the template to the title, and the objects from the template appear in the title.

Marquee treats the application of a template as a single operation. If you do not like the results of applying a template, press Ctrl+Z (Windows) or ⌘+Z (Macintosh) once to remove all the template objects.

Modifying Templates

If you want to modify an existing template, apply the template to a new title, modify the title, and then save the title as a template. You can either replace the existing template or save the modified template with a different name from the existing template.

After you modify a template, changes you make to the template do not affect any titles to which you have previously applied the template. Marquee does not permanently associate a title with a template that has been applied to it.

To modify a template:

1. Create a new title.

   For more information, see “Creating Titles” on page 242.

2. If the Templates Library window is not already open, select Window > Templates.
3. Double-click the template you want to modify to apply it to the new title.
4. Modify the new title.
5. (Option) If you want to replace the existing template, delete the template in the Templates Library window.

   For more information, see “Saving and Deleting Templates” on page 532.

6. Save the new title as a template.

   For more information, see “Saving and Deleting Templates” on page 532. If you have deleted the existing template, you can reuse the same name, or you can type a new name.

7. Do one of the following:
   - Save the new title if you want to keep it as a title.
   - Close the new title without saving if you created it only to modify the template.

Working with Templates and Lights

If a title that you save as a template includes lights, those lights become part of the template and are copied into a title when you apply a template in just the same way that title objects themselves are copied. This makes it possible to create a template that includes complex light effects such as animated lights.

If a template and the title to which you are applying the template both contain the same light source (for example, if they both have a default light), the duplicate light from the template is not copied to the title. This prevents the accumulation of duplicate lights in a title.

If you have created a template using specific light sources and you apply that template to a title that has different light sources, the resulting lighting in the title will be the combined effect of both the existing light sources and the new light sources from the template. You might need to disable, delete, or modify lights (either before or after applying the template) to achieve the final look

you want. For example, if a template does not have a default light, but the title to which you are applying the template does, you might need to disable or delete the default light to prevent it from contributing to the final lighting.

Avid does not recommend the use of projected shadows on template title objects. Projected shadows are associated with a specific light source, and this lighting association might change in unpredictable ways when a template is applied to a title that includes other lights.

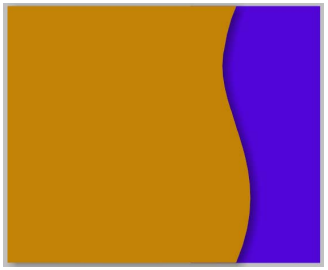
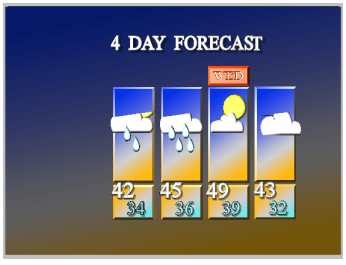
Using Avid Templates

The templates in the Avid Templates folder of the Templates Library window are designed to provide you with a wide variety of useful title capabilities. They include templates for creating common titles such as lower thirds, rolls, and crawls. They also include templates for single title objects such as lines and arrowheads, and templates that demonstrate several advanced title techniques.

Like the items in Avid folders of other Library windows, Avid-supplied templates are read-only files. You cannot save templates in the Avid Templates folder. You can create a modified version of an Avid template by applying it to a new title, modifying that title, and then saving the title as a template in a folder other than the Avid Templates folder in the Templates Library window.

The following table describes each template item at the top level within the Avid Templates folder.

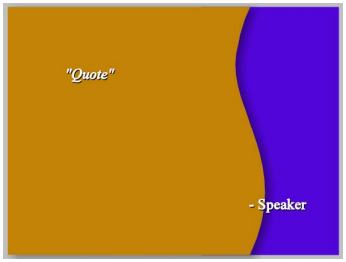
Avid Templates

Folder	Description	Example
BackDrops	Contains several templates that use multiple objects to create a backdrop above which you can add other title objects such as text. The objects from the template occupy the full area of the scene. Using a backdrop template to create a background differs from importing a graphic as a background since you can modify the objects from the template. For more information on importing graphics as a background, see "Working with Backgrounds" on page 273.	
CrawlingTitles	Contains crawling title templates for both NTSC and PAL formats and both 4:3 and 16:9 aspect ratios. Each template contains a single crawling text object. Titles that use these templates without modification (other than changes to text content) can be saved to a bin as an Avid Crawling Title.	
Demos	Contains templates that are primarily designed as learning tools to help you understand what can be achieved using Marquee. You can apply these templates to an empty title and then examine the objects and their property settings.	
LinesandArrowheads	Contains templates for line graphics objects of varying thicknesses, with and without arrowheads. You can use these templates to quickly creates lines that simulate underlining for text.	

Avid Templates (Continued)

Folder	Description	Example
Lists	Contains templates for standard lists of items, such as numbered and bulleted lists.	
LowerThirds	Contains templates for a variety of lower-third titles, including text and graphics objects.	
RollingTitles	Contains rolling title templates for both NTSC and PAL formats and both 4:3 and 16:9 aspect ratios. Each template contains a single rolling text object. Titles that use these templates without modification (other than changes to text content) can be saved to a bin as an Avid Rolling Title.	
finalcredits	Contains a film-style final credits title.	

Avid Templates (Continued)

Folder	Description	Example
Quote	Contains a template for presenting a quotation and the speaker to whom the quotation is attributed. The template includes a backdrop.	

Chapter 20
Working with Scripts and the AutoTitler

You can run scripts in Marquee that automate a number of common animation and title generation tasks. Scripts can save you time and help you avoid errors when synchronizing animation or typing text for multiple titles.

You can also use the AutoTitler function to create multiple titles automatically based on the format of a model title and the contents of an external text file.

This chapter includes the following sections:

Understanding Scripts

When you apply a script to a title or title object, you instruct Marquee to make changes to that title or title object automatically. The kinds of changes that you can make with scripts include animating text effects and scaling an object up or down so that it appears to zoom towards or away from the viewer.

Scripts are more powerful and flexible than any other Library items in Marquee. They can change or animate an object's properties, create new title objects or entire new titles, and change the duration of objects.

Scripts also have the flexibility to adapt their changes depending on context. For example, the “typeon” script causes the characters in a text box to become visible one by one, at equal intervals of time, over a duration that you specify by marking IN and OUT points in the Timeline. No matter what duration you set, or how many characters are in the text box, the appearance of the characters is always correctly timed.

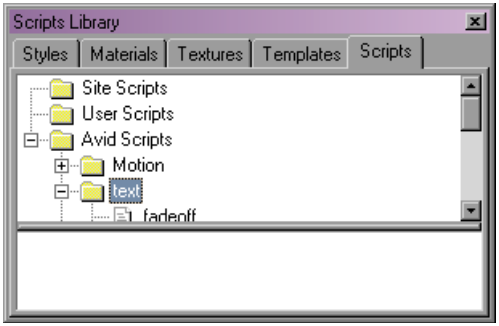
Scripts differ from other Library items in that they are not created or modified by Marquee users. All the scripts available by default are located in the Avid Scripts folder, and you need to know only how these scripts function and how to apply them.

Developers can create additional scripts using the Python programming language and an application programming interface that allows Python to control Marquee functionality. The Console command on the Scripts shortcut menu opens a console to assist with script development but provides no functionality for users. The Site and User folders in the Scripts Library window are available as a location for developer-created scripts but are otherwise empty and unusable. For information about developing Marquee scripts, contact Avid.

You apply scripts from the Scripts Library window. Avid-supplied scripts appear within the Avid Scripts folder.

To open the Scripts Library window:

- Select Window > Scripts.



Viewing Script Descriptions

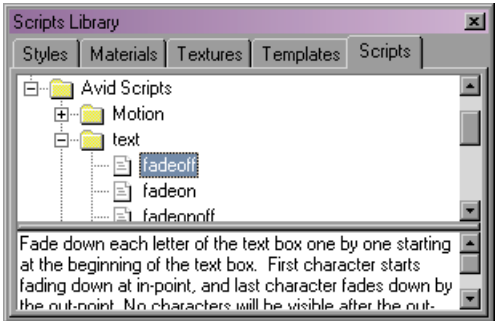
Each Avid-supplied script has a description associated with it. The description provides an explanation of what the script does and might also contain information about how to prepare titles or supporting files before using the script. Script descriptions appear in the lower area of the Scripts Library window.

To view a script description:

1. If the Scripts Library window is not already open, select Window > Scripts.
2. Open the Avid Scripts folder, open the appropriate subfolder if necessary, and select the script whose description you want to view.

   To open a folder on Windows, double-click the folder or click the plus (+) icon beside the folder. To open a folder on the Macintosh, click the triangular opener besider the folder.

   The description appears in the lower area of the Scripts Library window.



Applying Scripts to Title Objects

Most Avid scripts operate on title objects, so you must select the object before applying the script.

To apply a script to a title object:

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

   For more information, see "Selecting and Deselecting Objects" on page 280.

2. If the Scripts Library window is not already open, select Window > Scripts.

3. Double-click the script you want to use.

   Marquee runs the script and makes changes to the title object. A message in the status bar of the Monitor window indicates if the script ran without error.

In most cases, scripts create animation, so you must play the title to see the changes, or view the changes to objects in the Timeline window. If necessary, you can modify a title further after you have run a script on it, for example, by adjusting the animation.

Marquee treats the changes made by most scripts as a single operation. If you do not like the effect of a script on your title, press Ctrl+Z (Windows) or ⌘+Z (Macintosh) once to remove all changes made by the script. You cannot undo the changes made by the AutoTitler by pressing Ctrl+Z (Windows) or ⌘+Z (Macintosh) once; if you do not like the new titles created by the AutoTitler, do not save them.

Using the AutoTitler

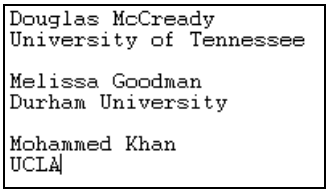
The AutoTitler allows you to create multiple titles, each with different text content, from a single model title and an external text file.

For example, you might be creating a documentary program that requires multiple lower thirds. You can create a model title that establishes the look of the lower thirds, place all the name and location information you need in a text file, and then run the AutoTitler. The AutoTitler automatically creates a series of lower-third titles each of which uses a different name and location pair from the text file.

The AutoTitler supports both ASCII and Unicode external text files, allowing you to create titles using any Unicode characters, for example Chinese language characters.

The following illustration provides a visual summary of the AutoTitler process.

1. Create a model title and a text file that contains the text you want to appear in your titles. Here we will create three lower thirds from a model title that uses an Avid-supplied lower-third template.



2. Run the AutoTitler by selecting File > AutoTitler.

3. Marquee creates three new lower thirds using the text from the text file.

4. Close the model title, and save all the new titles, for example, by using Save All to Bin to save them to a bin in your Avid editing application.

Creating Titles for Use with the AutoTitler

The AutoTitler requires a single title to use as a model for all the other titles it will create. In most cases, you will want to create a title and save it as a template so that you can reuse it easily.

A title that you create for use with the AutoTitler must meet certain requirements. Use the following guidelines for creating a title that is compatible with the AutoTitler:

- The title must contain one or more text objects.
- The text objects that the AutoTitler will modify can contain placeholder text or can be blank.

  Placeholder text can be helpful for understanding the purpose of each object in the model title, but, in some cases, leaving the objects blank allows the AutoTitler to function with more flexibility. For more information, see "Considerations When Working with the AutoTitler" on page 550.
- The text objects that the AutoTitler will modify must be named sequentially using the format `Text Box` *n*, where *n* is an integer. For example, name the first text object in the title `Text Box 1`, the second `Text Box 2`, and so on.

  For information on naming title objects, see "Identifying Objects" on page 304. Remember that the name of a text object bears no relation to the text content that appears in the object.
- The sequence of the text objects that the AutoTitler will modify must match the order in which text content items appear in the external text file. For example, if your text file lists names first and locations second, the text object for names in the title must be named `Text Box 1` and the text object for locations must be named `Text Box 2`.

  For more information on formatting the text file, see "Creating External Text Files for Use with the AutoTitler" on page 546.
- The title can contain other objects such as graphics (or even text objects that are not named using the format explained above). These are copied into each of the titles created by the AutoTitler but are not otherwise changed.

Creating External Text Files for Use with the AutoTitler

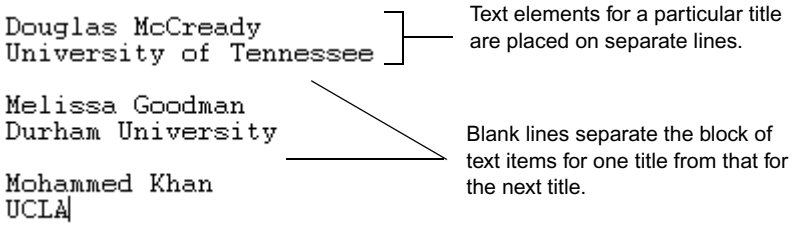
The AutoTitler uses a text file that contains the text you want to appear in the automatically created titles. You can create this text file in any text editor or word processing program. On Windows, for example, you can use Notepad.

If you use TextEdit on the Macintosh, you must create files as Plain Text, not as Rich Text. When you save files, use either MacRoman or UTF-8 encoding.

The text file must be formatted so that the AutoTitler can read and interpret the text, as follows:

- Separate the individual text elements to be included in a title by starting each element on a new line. For example, type the name for a lower-third title on one line, and then type the location on the next line.
- Separate groups of text items to be used for different titles by leaving a blank line between them.

The following illustration shows these formats in a sample text file.



Running the AutoTitler

Once you have a model title and a text file correctly prepared, you can run the AutoTitler and automatically create your titles.

To run the AutoTitler:

1. Open the title you want the AutoTitler to use as a model.
2. Select File > AutoTitler.

   The “Choose input file for AutoTitler” dialog box appears.
3. Select the text file that contains the text for your titles, and then click OK (Windows) or Open (Macintosh).

   The AutoTitler Preferences dialog box appears and displays 1 as the starting title number.
4. Click OK,

   Marquee creates a new title for each block of lines in the text file. The new titles are named using the text placed in the Text Box 1 text object for that title. (If the input text file is a Unicode file, the new titles are named sequentially beginning with “title 1.”)

If you are working with a very large input text file, Marquee might run short of resources for creating additional titles and display a message box. In this case, follow the procedure described in "Running the AutoTitler Repeatedly with Large Text Files" on page 548.

You might also see a message box warning you that Marquee cannot open the current reference background image. If you see this message box, click OK to dismiss it.

A message box tells you when all possible titles have been created, and the last created title displays in the Monitor window. All the titles created by the AutoTitler are now open in Marquee. You can view each created title by choosing it by name from the Window menu.

Titles created by the AutoTitler are not saved as part of the process. You must save them manually. This allows you to review them and choose whether to save the titles as .mqp files or to save them to a bin in your Avid editing application.

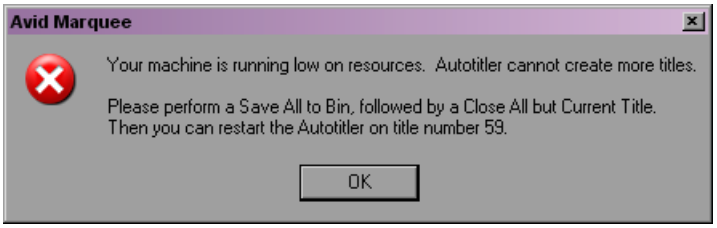
Running the AutoTitler Repeatedly with Large Text Files

If you are using the AutoTitler to create titles automatically from a very large input text file, Marquee might not be able to create all of the titles the first time you run the AutoTitler. For example, if you have a text file that contains text for creating 100 titles, Marquee will create a little more than half of them before it runs short of resources (the exact number varies slightly depending on how you have Marquee set up).

If this is the case, Marquee stops the title creation process, warns you of the situation, and lets you save and close the existing titles before running the AutoTitler again to create the remaining titles.

1. Follow the procedure described in "Running the AutoTitler" on page 547.

   When Marquee runs short of resources for creating additional titles, a message box appears.



You might also see a message box warning you that Marquee cannot open the current reference background image. If you see this message box, click OK to dismiss it.

2. (Option) If you plan to close Marquee before you finish creating titles from the input text file, make a note of the title number displayed in the message box.

   If you know this number, you can reopen Marquee in the future and create the remaining titles by entering this number in the AutoTitler Preferences dialog box. If you rerun the AutoTitler before you close Marquee, as described in the remainder of this procedure, Marquee remembers this number for you and enters it in the AutoTitler Preferences dialog box.

3. Click OK.
4. Select File > Save All to Bin, and save all the titles so far created by the AutoTitler using the standard procedures described in “Saving All Open Titles To a Bin” in the Avid Marquee Title Tool Help.
5. Select File > Close All But Current Title.

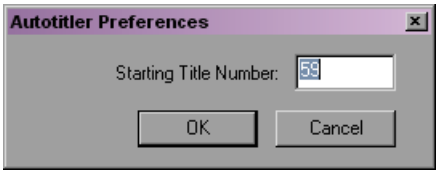
   Marquee closes all titles created by the AutoTitler, leaving only the currently active title open, and displays a message box.

6. Click OK.
7. Select File >AutoTitler.

   The “Choose input file for AutoTitler” dialog box appears.

8. Select the text file that contains the text for your titles, and then click OK (Windows) or Open (Macintosh).

   The AutoTitler Preferences dialog box appears and displays the starting title number needed to continue title creation from the input text file.



9. Click OK.

   Marquee continues creating titles, starting from the title number shown in the AutoTitler Preferences dialog box.

10. If Marquee runs short of resources again, repeat steps 2 to 9 as necessary until all titles have been created.

    A message box tells you when all possible titles have been created, and the last created title displays in the Monitor window.

Considerations When Working with the AutoTitler

You should be aware of the following when working with the AutoTitler:

- You do not receive any progress information while the AutoTitler is running and new titles are building. You do see changes in the Marquee interface as new objects build and properties are applied to them, but the process normally proceeds too quickly for you to view individual objects and adjustments. Be patient while the AutoTitler runs.
- If there are more text items in a block in the text file than the number of appropriately named text objects in the starting title, a message box advises you of the problem. You can choose to let the AutoTitler continue, or you can stop the AutoTitler.

  For example, if there are three lines in a block in the text file, but the starting title contains only Text Box 1 and Text Box 2, the AutoTitler will place the first two lines into Text Box 1 and Text Box 2 and then advise you that it is skipping the third line.
- If there are fewer text items in a block in the text file than the number of appropriately named text objects in the starting title, the AutoTitler places the available lines from the text file into the appropriate text objects and copies the remaining text objects without changing their text.

This function of the AutoTitler is useful for situations where you might or might not need an additional line. For example, you might regularly need to create multiline credits where a particular job category might be performed by between one and four people. You can set up a model title as follows:

- Text Box 1 for the Job Category
- Text Boxes 2 to 5 for the possible people

If you leave Text Boxes 3 to 5 blank, they will be filled in by the AutoTitler when there are lines in a block of the input text file to match them and left blank when there are not.

Chapter 21
Previewing and Rendering

This chapter describes how you preview a title at different times and render it to disk for use in other applications.

This chapter covers the following topics:

Understanding Rendering

Marquee renders frames of a title for the following three purposes:

- Marquee renders temporary TIFF graphics files as part of the process of saving titles to a bin in your Avid editing application.
- Marquee renders single frames of a title so that you can preview them at their full output quality.
- Marquee renders titles to disk as graphics files that you can use in other applications. You can choose to render a single frame, all frames between marked IN and OUT points, or the entire title.

Before you render frames of a title for any of these purposes, select any rendering options you might need.

Locations of Rendering Options

You adjust most rendering options in the Render Options dialog box. However, certain aspects of rendering are controlled in other parts of the Marquee interface, as follows:

- The title's settings — those you selected in the New Title dialog box or changed in the Title Preferences dialog box — specify whether to render as full frames or interlaced fields (field rendering, with control of field order) and control the number of frames in the entire title, based on the current frame rate and aspect ratio.

  For more information, see "Title Duration and Title Formats" on page 243.

- The Render Properties window controls some aspects of how an individual title object is rendered, such as whether the back face of the object is rendered.

  For more information, see the table "Render Properties" on page 316.

Rendering Options When Saving to a Bin

When you save a title to a bin in your Avid editing application, most aspects of the rendering process are controlled automatically and are not affected by settings in the Render Options dialog box. For example, the temporary graphics files created during the save process are always rendered as TIFF files, regardless of the file format that is set in the Render Options dialog box.

Some settings in the Rendering Control area of the Render Options dialog box do affect titles that you save to a bin. For example, if you want to add a motion blur to a title that you save to a bin, you must select "Enable motion blur" and set an Exposure value.

For more information on which settings affect titles saved to a bin, see "Rendering Control" on page 563. For more information on saving titles to a bin, see "Saving Titles to Your Avid Editing Application" on page 226.

Selecting Options in the Render Options Dialog Box

You select most options that affect rendering in the Render Options dialog box. For information on the location of other settings that might affect rendering, see "Locations of Rendering Options" on page 554.

To select options in the Render Options dialog box:

1. Select Render > Options.

   The Render Options dialog box appears.

2. Select options based on your needs.

   The following sections provide detailed information on the rendering options in each area in the Render Options dialog box.

3. Click OK.

Output Control

The Output Control area in the Render Options dialog box contains controls for specifying the image format.

Some formats have format-specific parameters that you can set. If a format has format-specific parameters, the Parameters button is available; if a format does not have format-specific parameters, the Parameters button is not available.

Marquee supports all the image and animation formats that are handled by Host Independent Image Protocol (HIIP®), the image translation technology from Avid that allows applications to be compatible with dozens of imaging standards in professional use.

To specify the image format used for rendered frames:

- Select an available format from the Format list. The default format is PICT.

To set format-specific parameters:

1. Click Parameters.
2. Select the parameters based on your needs, and then click OK.

The following table lists the image formats supported and describes the format-specific parameters. For more extensive descriptions of these image formats and information on any limitations to their use on Avid systems, see the Help for your Avid editing application.

The application uses the settings in a format parameter dialog box for saving images, as well as for loading images in that format.

Image Formats and Format-Specific Parameters

Format and Default Extension	Parameters	Description
Alias (.als)	None	
BMP (.bmp)	Format	Controls the compatibility of the BMP file. When set to "Windows," files are compatible with Microsoft Windows. When set to "OS/2," files are compatible with the IBM® OS/2® operating system.
Chyron (.chr)	None	
Cineon (.cin)	Blackpoint	Specifies the blackpoint value on a scale between 0 and 1022. The default value of 0 is adequate for most uses.
	Whitepoint	Specifies the whitepoint value on a scale between 1 and 1023. Use the default value of 685 if the destination is something other than a Cineon™ system (for example, a video display). Use a whitepoint of 1023 if the files came from and will be transferred back to a Cineon system.
	Gamma	Specifies an adjustment to correct for any gamma inconsistencies in the output display on a scale from 0.01 to 100.0. Use the default value of 1.0 for images displayed on a computer monitor. Use a value of 0.45 for NTSC video.
ERIMovie (.eri)	Pack 24 bits	Controls whether the image data is packed into 24 bits (compressed) or saved in 32 bits (raw).
Framestore (fs)	None	
IFF (.iff)	None	

Image Formats and Format-Specific Parameters (Continued)

Format and Default Extension	Parameters	Description
JPEG (.jpg)	Quality	Controls image quality and output file size. Higher values produce better images but larger file sizes; lower values reduce image quality but result in smaller file sizes.
	Baseline	Some applications require the control for JPEG files. Consult the documentation that came with your JPEG-supported applications to see if this option is required. This option is typically selected.
	Progressive	Allows you to save progressive JPEG files, which divide the file into a series of increasing-quality scans of the image. Progressive JPEG files can be recognized only by applications with progressive JPEG support, such as some Web browsers.
OMF (.omf)	Format	Specifies the video format, either NTSC or PAL. This setting affects the Required image size display and the Frame Rate (if set to Automatic).
	Compression	Specifies the image compression method to use. You can use 1:1 for no compression or select one of the many AVR or Meridien compression methods.
PCX (.pcx)	None	
Photoshop (.psd)		Only grayscale, indexed, RGB, and duotone variations are supported. Duotone files are loaded as grayscale. Multichannel (greater than four channels) files and layered images (even single-layer images) are not supported.
	Compression	Controls the size of the file on disk. Disabling compression creates larger files on disk.
PICS (.pcs)	None	
PICT (.pic)	Create MacBinary header (Windows only)	Controls whether a MacBinary header is added to saved files. Enabling this option allows easy cross-platform creation of PICT files via a network.
Pixar (.pxr)	None	

Image Formats and Format-Specific Parameters (Continued)

Format and Default Extension	Parameters	Description
PNG (.png)	Color Depth	Controls the bit depth at which images are saved. The 8 bits option saves data at 8 bit, even if it is not. The 16 bits option saves data at 16 bit. The Automatic option saves the image at the same depth as the original loaded image.
	Interlaced	Allows you to save the file for progressive display, similar to progressive JPEG files. Interlaced PNG files can be recognized only by applications with interlaced PNG support, such as some Web browsers.
QRT (.dbw)	None	
Rendition (.6rn)	None	
SGI (.rgb)	Color Depth	Controls the bit depth at which images are saved. The 8 bits option saves data at 8 bit, even if it is not. The 16 bits option saves data at 16 bit. The Automatic option saves the image at the same depth as the original loaded image.
Softimage (.pic)	None	*The default extension is the same as that used for Macintosh PICT files. Double-clicking a Softimage® file will start the application associated with Macintosh® PICT files, which cannot handle Softimage files. Avoid double-clicking Softimage files to view them.*
SunRaster (.sun)	None	
Targa (.tga)	Color Depth	Controls the bit depth at which images are saved. The 5-bit option saves data in Targa 16 format. The 8-bit option saves data in Targa 24/32 format.
	Compression	Controls the size of the files on disk. Disabling compression creates larger files on disk.
TIFF (.tif)	Color Depth	Controls the bit depth at which images are saved. The 8 bits option saves data at 8 bit, even if it is not. The 16 bits option saves data at 16 bit. The Automatic option saves the image at the same depth as the original loaded image.

Image Formats and Format-Specific Parameters (Continued)

Format and Default Extension	Parameters	Description
	Compression	Controls the size of the files on disk. The None option does not compress image data and can result in large file sizes. The RLE (Run Length Encoded) option produces relatively small files. The JPEG option uses lossy JPEG compression to produce small files.
Wavefront (.rla)	Format Type	Controls the variation (RLA or RLB)
	Color Depth	Controls the bit depth at which images are saved. The 8 bits option saves data at 8 bit, even if it is not. The 16 bits option saves data at 16 bit. The Automatic option saves the image at the same depth as the original loaded image.
	Gamma	Use this option for cross-platform applications that require the value be set. Consult the documentation that came with your Wavefront™ application to see if you need to adjust this value. Typically, you can use the default setting.
XWindows (.xwd)	None	
YUV (.yuv)	Format	Controls the video format of saved images. The NTSC option saves files in NTSC (720 x 486) video format. The PAL option saves files in PAL (720 x 576) video format. Images are either padded with black or cropped.
	Smooth YUV	Controls whether to enhance the fidelity of images saved in YUV color space if they originate in RGB color space.

Save Control

The Save Control area in the Render Options dialog box contains controls for specifying which images to save, as well as how to save them.

For each frame of the title, you can save the resulting RGB (color) image, the matte generated by objects whose “Generate matte” property is selected in the Render Properties window, or both. The matte that you can save uses the Main material’s Opacity setting for each object at each frame.

To save the resulting image for each frame:

- Select “Save result.”

To save the matte generated by the ”Generate matte” property:

1. Select “Save matte.”
2. Select the type of matte to save from the “Save matte” list:
   - *as alpha:* This option saves the matte as the alpha channel of the Result image. This option is available only if the selected image format supports an alpha channel.
   - *externally:* This option saves the matte as an image on disk, separate from the result image.

   External matte frames are saved using the name of the Result image, with an “*M_*” prefix. For example, if the Result image is named *bumper.omf*, the external matte is named *M_bumper.omf*.

File Name Control

The File Name Control area in the Render Options dialog box contains controls for specifying where rendered files are saved and how they are named.

Output Directory

The output directory is the location on disk where you intend to save rendered frames. Select an output directory that has adequate space to store the rendered frames.

To specify the output directory, do one of the following:

- Click Directory, and then select a directory from the directory browser.
- Type the full directory path in the text box next to Directory.

(Windows) If the `TEMP` environment variable is set, Marquee uses the directory assigned to it as the default output directory for new titles. Otherwise, the default output directory is *C:*.

(Macintosh) The default output directory for new titles is the Documents folder for the current user, for example, Users/editor1/Documents.

File Name-Building Options and Template

You describe how you want to name the resulting image files on disk by creating a file name template, built by specifying the file name-building options. You can specify tokens or bracketed labels that represent information in the title, such as the title's name, the current frame number, and the file name extension associated with the image format. The following table describes the file-name building options.

File Name Template Options

Option	Token	Description
Use title name	`[base]`	Inserts the name of the title, excluding the *.mqp* extension (if it exists), in generated file names. The `[base]` token appears in the Template text box by default at the beginning of the file name (not including the directory name).
Add frame number	`[num]`	Inserts a frame number in generated file names. The `[num]` token appears in the Template text box by default after the `[base]` token.
Add extension	`[ext]`	Inserts a period (.) followed by a user-defined extension at the end of the file name. The `[ext]` token appears in the Template text box by default after the base name and frame number. By default, the Add extension text box displays the current output format's default file name extension (such as `tif` for the TIFF format). However, you can enter a custom extension in the text box. If you will be opening the rendered files in an application that determines a file's format based on its file name extension, select this option. Marquee properly handles image files, regardless of name. (That is, it does not make any assumptions of a file's image format based on the extension.)
Inital frame number		If "Add frame number" is selected, type the starting frame number in this text box. If "Add frame number" is not selected, this option appears dimmed. The default value is 1.
Increment		If "Add frame number" is selected, type the frame number increment in this text box. For example, type 2 to generate a sequence such as 1, 3, 5, 7, ... If "Add frame number" is not selected, this option appears dimmed. The default value is 1.

File Name Template Options (Continued)

Option	Token	Description
Number of digits		If "Add frame number" is selected, type the number of digits to use in the frame number in this text box. For example, four digits produce numbers like 0001, 0100, and 1000. If "Add frame number" is not selected, this option appears dimmed. The default value is 4.  *This option defines the starting number of digits, but does not limit the number of digits This prevents "chopping" the most significant digit. For example, if you set 1 as the initial frame number and 2 as the number of digits, numbering begins with 01. When numbering exceeds 99, Marquee uses a third digit so that the next number is correct at 100.*

These options insert their file name-building tokens in the Template text box. You can modify (delete, add to, or rearrange) the information in this format irrespective of the state of these options. However, if you select an option, manually change the template, and then deselect and select the option, the option's token will be inserted at the best position in the template it can find.

If you do not use "Add frame number," all the generated images have the same file name. If you are saving in an image format that creates separate files, select this option to prevent saving to the same file name. If you are saving in an animation format (such as OMF), do not add `[num]` *to the file name template unless you want to use frame numbers.*

In addition to selecting these options, you can manually enter these file name tokens in the Template text box. However, if you do not spell the file name tokens correctly, they will not be used and will not be taken as literal strings. (That is, inserting `[bases]` *into the template does not put [bases] into the resulting file names.)*

Example File Names

The Example text box displays the first file name generated by the current file name template. Use this text box to confirm that you have specified the intended file names for rendered frames.

You have flexibility in naming these saved images, and, with these predefined tokens, you can sequentially number frames. The following table shows some examples of file name templates and their resulting file names.

Template	Example File Name
`test[num].[ext]`	test005.tif
`test.[num]`	test.005
`test[num]`	test005
`[base].mov`	MyTitle.mov
`[base].[num]`	MyTitle.005

Animation and Single-Image Format Rendering

If you select an animation format, such as OMF, and place the `[num]` token in the Template text box, multiple one-frame OMF files are created. A single OMF file with a frame number in its name is *not* created.

Rendering Control

The Rendering Control area of the Render Options dialog box contains settings for controlling the following aspects of rendering:

- Quality
- Method
- Video-Safe Colors
- Premultiplied Alpha
- Vertical Jitter
- Image Blur
- Motion Blur

Some of these settings affect titles you save to a bin in your Avid editing application. For more information, see the notes at the beginning of the following sections.

Quality

This option affects titles you save to a bin in your Avid editing application. In particular, if you select Custom and then select Fast 2D from the Antialiasing list, you might improve the quality of some rendered images.

The Quality option specifies the detail level of objects, including the level of smoothness along the edges of objects. You can select a Low, Medium, or High level. You can also select the Custom level to specify custom quality settings. For more information on quality levels, see "Setting the Quality Level for Viewing in the Monitor Window" on page 266.

Method

This option does not affect titles you save to a bin in your Avid editing application. When Marquee saves titles to a bin, it automatically uses the appropriate option, depending on your system hardware.

The Method option specifies how quickly you want to render the scene. Select one of the following:

- *Fastest:* This option renders the scene as fast as possible. Use this option when you can wait for the results of the rendering process and do not need to work in any other application while the scene is rendering.
- *Off-screen:* This option renders the scene in the background. Use this option when you need to work on other applications while the scene is rendering.

Video-Safe Colors

This option affects titles you save to a bin in your Avid editing application. If you are using an Avid editing application other than Avid Symphony, you should select "Use video-safe colors." If you are using Avid Symphony, Avid recommends that you deselect "Use video-safe colors" in Marquee and control color levels for titles you save to Symphony using the Safe Color settings within Symphony, which provide more precise control of color limiting. For more information, see the Help for Avid Symphony.

If your work is intended for display to NTSC or PAL video (for example, when creating broadcast graphics), you need to ensure that the colors in the scene are not too saturated for the NTSC or PAL broadcast standard. Otherwise, artifacts appear on the video display.

To use only video-safe colors:

- Select “Use video-safe colors.”

“Use video-safe colors” affects images you preview on screen or render to disk, not the colors used in the scene in the Monitor window. For a better representation of video-safe colors, preview a frame of the title.

Premultiplied Alpha

This option does not affect titles you save to a bin in your Avid editing application. Titles saved to a bin are always saved without premultiplied alpha.

If you intend to composite the rendered scene onto a background image in a different application, you can control whether the color (RGB) information includes alpha channel information. The color information is described in one of the following terms:

- *Premultiplied:* The red, green, and blue values for each pixel in the image are multiplied by the pixel’s alpha value. For example, if the red value of a pixel is 200 out of 255 and the alpha value for the pixel is 50 out of 100 percent, the red value would be stored as 100 (50 percent of 200). With the alpha channel information integrated in the color information, some compositing applications can quickly composite the image onto other images. This is the default mode for Marquee.
- *Straight (nonpremultiplied):* The red, green, and blue values for each pixel are not multiplied by the pixel’s alpha value. Applications that support only straight alpha images can take longer to composite the image because the image’s alpha channel needs to be processed.

  When you use straight alpha mode, semitransparent areas, such as gradients, appear opaque in previewed and rendered frames. However, the results will be correct when the frames are composited using the frames’ alpha channel.

Premultiplied alpha version | Straight alpha version | Alpha channel information

To generate color information that is premultiplied by the alpha channel:

- Select "Use premultiplied alpha."

To generate nonpremultiplied (straight) color information:

- Deselect "Use premultiplied alpha."

  Perform this action if you are rendering frames for use in Avid editing applications.

If you are using a reference background, "Use premultiplied alpha" does not affect rendering because the reference background produces a solid-white alpha channel, even if the reference background includes its own alpha channel. For more information on reference backgrounds, see "Working with Backgrounds" on page 273.

Vertical Jitter

This option affects titles you save to a bin in your Avid editing application. Use only for animated titles. Rolling titles that you save as Avid Rolling Titles should not need this option.

At certain speeds, small text that scrolls vertically can sometimes appear to jitter. The problem is noticeable along the top and bottom edges of the scrolling characters.

To dampen the effect of jittery text that scrolls vertically:

- Select "Suppress vertical jitter."

A one-pixel blur is applied to the text to soften the jitter. Therefore, you should not use the jitter suppression option if the text is not moving vertically or if no jitter exists.

Image Blur

This option affects titles you save to a bin in your Avid editing application.

This option causes Marquee to smooth the look of the rendered frame. Image blur is selected by default, and in most cases it improves the final look of title objects in your Avid editing application by smoothing details such as object edges. However, in some situations (for example, when your title includes imported graphics), image blur can result in unwanted softening of the imported material.

To prevent unwanted softening of imported graphics in titles:

- Deselect “Enable image blur.”

Motion Blur

This option affects titles you save to a bin in your Avid editing application.

Objects that move quickly appear blurry to the viewing “camera.” However, Marquee normally renders each frame of the title separately without taking into account this perception of blur.

To simulate blurry motion:

1. Select “Enable motion blur.”
2. Adjust the Exposure value.

   The blurriness of a moving object depends on how long the viewing camera’s shutter is open. The longer the shutter is open, the blurrier the object appears, and vice versa. The Exposure time, measured in seconds, represents the duration that the shutter is open. Values range from 0 to 1 second.

Motion blur is a time-intensive effect, especially when you use a long exposure time.

You can control the quality of the blurred motion using the “Motion blur” setting in the Custom Quality dialog box. For more information, see “Blurring Moving Objects” on page 495.

Bit Depth

You can save Marquee titles using a color bit depth of either 16 or 8. Use the 16-bit option whenever you need higher precision for your title graphics, for example in HD projects.

To set the bit depth Marquee uses when saving titles:

- Select the Bit Depth you need, either 8 or 16.

Previewing Title Frames on Screen

If you want to see how a particular frame of a title will appear if rendered to disk, generate a preview on screen. Although the quality and detail level of the scene in the Monitor window is close to what you get if you render the scene to disk, the scene does not use the highest quality imagery possible or video-safe filters for colors in a scene.

The Preview window requires OpenGL video support to display correctly. If you are using a two-monitor system, your second monitor might not be able to display the Preview window correctly, so you should not move the Preview window onto the second monitor. For more information, see "Understanding the Video Display for Marquee and Your Avid Editing Application" on page 219.

To preview a title on screen:

1. Select the rendering options you want to use for the preview in the Rendering Control area of the Render Options dialog box.

   Only the settings in the Rendering Control area of the Render Options dialog box are used when you preview a frame.

   For more information, see "Selecting Options in the Render Options Dialog Box" on page 555 and "Rendering Control" on page 563.

2. Move to the position in the title you want to view.
3. Select Render > Preview.

   The Rendering Progress dialog box appears, showing the progress of rendering the current frame. If you are rendering using the Fastest rendering method, the frame appears in the Rendering Progress dialog box as it is rendering. Rendering status appears in the status bar of the Monitor window. To stop rendering, click Cancel.

   After the current frame is rendered, the Preview window opens, containing the rendered frame.

4. To switch between viewing the RGB image and alpha channel associated with the current frame, press Shift+A.
5. If you are previewing a nonpremultiplied alpha image (that is, the "Premultiplied alpha" option is not selected), you can view the image as if it were composited on a black background by pressing Shift+M.

   If the image is already premultiplied, pressing Shift+M shows a dimmer image.
6. To view the title at other times, repeat steps 2 and 3.
7. Use the right-mouse-button shortcuts to pan or zoom the preview image (see Table on page 209).

You cannot zoom in beyond the original (normal) size.

8. When you have finished previewing, close the Preview window by clicking the Windows Close button (Windows) or clicking OK (Macintosh).

Rendering Titles to Disk

If you want to view your entire title at its full quality and detail level, or if you want to use the title in other applications (for example, multimedia CD-ROM or game development), render the title to disk.

When you render using the Fastest rendering method, windows or other objects that appear in front of the Rendering Progress dialog box, such as screen savers or system messages, might affect the image being rendered. To avoid rendering incorrect results, turn off screen savers or other applications running in the background that might obscure the Rendering Progress dialog box. You should also avoid pressing Alt+Tab to switch to other running applications.

To render a title:

1. Select the rendering options you want to use in the Render Options dialog box.

   For more information, see "Selecting Options in the Render Options Dialog Box" on page 555.

2. Do one of the following:

   - To render the current frame, select Render > Render Current Frame.

     A file dialog box appears for you to select the directory and name to save the current frame on disk.

   - To render the entire title, select Render > Render All Frames.

   - To render the frames between the IN and OUT points, select Render > Render In to Out.

   The Rendering Progress dialog box appears, showing the status of the rendering process. The currently defined render options are used.

3. To stop the rendering process, click Cancel in the Rendering Progress dialog box.

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