



Panamation Manual



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Patents. Various technology in the GlobeCaster System is patented in the United States, including without limitation patent numbers 5,941,997, 5,978,876, 5,872,565. Other patents, in the United States and other countries, are pending.

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Panamation Overview



Chapter 1

Chapter 1

Document Overview

This chapter provides information on how this manual is organized. It also covers conventions within the manual.

NOTE: This manual makes references to the applications **Predictor** and **Personal FX**. If you are a *GlobeCaster Live* user, you will not have **Predictor** or **Personal FX**. However, users of *GlobeCaster Live* can upgrade to include **Personal FX**. See the GlobalStreams Web site (www.globalstreams.com) for more information.

Inside, you'll find the following sections:

- Introduction..... 4
- Conventions..... 5

Introduction

This manual gives you an overview of what Panamation is, and how to efficiently use it. It also shows what you see when you navigate through the Panamation interface.

Within these pages are instructions on how to use, create, and alter strokes, digitize clips, create transitional effects, and much more. All of Panamation's, buttons, panels, and functions are covered here as well.

Conventions

Before you get too far into the manual, some of the conventions that appear within need to be explained.

General Conventions

The following formats are used to identify special instructions or important points in this manual.

1. (numbered)	Indicates step-by-step instructions to follow.
Bold Type	Indicates words you should type, buttons you should click, names of menus, panels, or windows, and file path names.
<i>Italic Type</i>	Indicates emphasis of important points.

**Mouse
Conventions**

GlobeCaster is designed for use with a two-button mouse. The following table explains mouse commands used in this manual.

Click	Place the mouse pointer over an object. Press the <i>left</i> mouse button and immediately release.
Click-and-drag	Place the mouse pointer over an object. Press the <i>left</i> mouse button. While holding the button down, move the mouse around. This is used mainly to draw boxes over objects to select them.
Double-click	Place the mouse pointer over an object. Press the <i>left</i> mouse button twice quickly and immediately release.
Drag-and-drop	Place the mouse pointer over an object. Press the <i>left</i> mouse button and hold it down. Drag (move) the object anywhere on your screen. When you release the mouse button, the object is dropped where the mouse pointer is aimed.
Right-click	Place the mouse pointer over an object. Press the <i>right</i> mouse button and immediately release.

Panamation Quick Start



Chapter 2

Chapter 2

Quick Start

This chapter is designed to give you an overview of Panamation. As you follow along, you will learn how to create a background, add and animate objects in the workspace, and save a project. When you finish this quick start, remember that there are many more features that you can explore on your own.

This chapter covers the following topics:

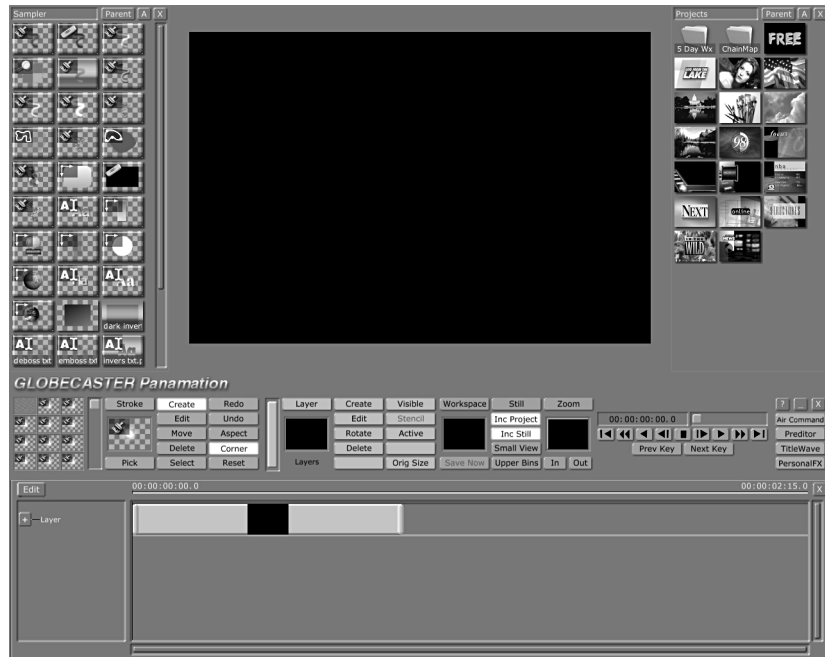
- Introduction to the interface..... 12
- Preparing the workspace..... 13
- Creating a background..... 16
- Creating a simple animation 21
- Adding text to the workspace 24
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- Saving the project 37

Introduction To The Interface

Welcome to the Panamation Quick Start tour. By following along with the tour, you'll learn how to put together a Panamation project and try your hand at some powerful Panamation features. With these features, you will create an animated space scene with text that can be used as a transition between shows. In this tour, you'll see the various ways to bring objects and strokes into the workspace and change their properties.

NOTE This tour uses brush strokes and elements from the Panamation Tutorials bin, which may not be currently open. To find it, click the **Parent** button at the top of one of the bins, which takes you to the **Panam** bin. Double-click on the **Tutorials** folder there, and then double-click on the **Space Scene** folder.

To get to Panamation from the Air Command, click on the **Panamation** button. It's a button in the lower right corner of Air Command. This brings up the Panamation interface.



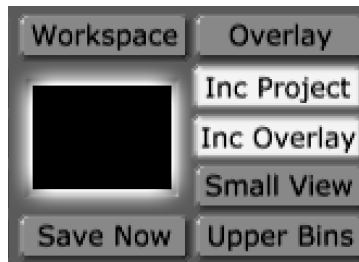
The Panamation Interface

Preparing The Workspace

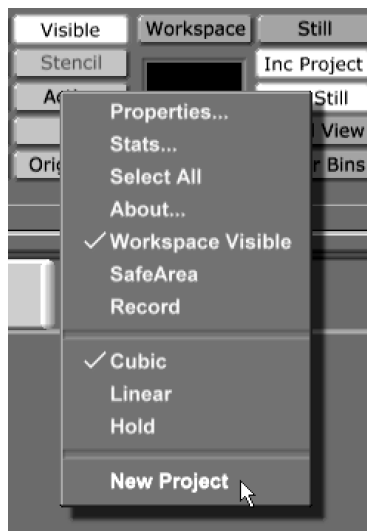
The first thing you should do is tell Panamation to display its workspace on GlobeCaster's Program monitor. By doing this, you will be able to see exactly what your project will look like on a television screen.

To prepare the workspace, follow these steps:

1. Right-click on the **Workspace** picon (following figure) and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



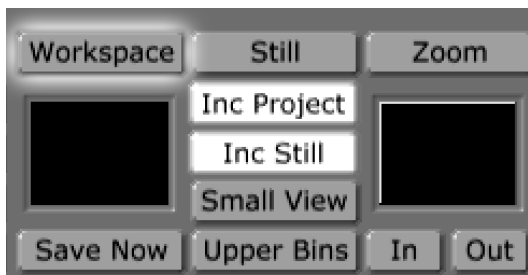
The Workspace Picon



Choosing New Project

Choosing New Project clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a message box comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

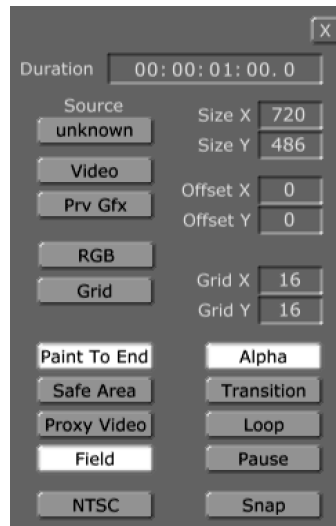
2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



The Workspace Button

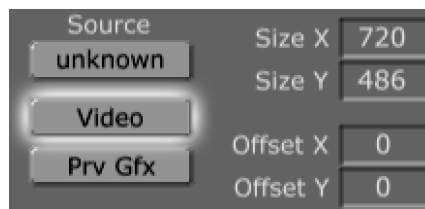
You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can

set the length of your effect, change how it is displayed in the workspace, and how it acts when it is run back in Air Command.



The Workspace Properties Panel

3. Click the **Video** button (following figure) on. This tells Panamation to display its workspace on the Program monitor.



The Video Button

In your Program monitor, you see the Panamation workspace.

4. Close the **Workspace Properties** panel by clicking the X button in the upper right corner of the panel.

Continue on to create a background that is a star field.

Creating A Background

The easiest way for you to create your scene, will be to create the background first, then work your way forward. In this case, you'll create a star field to serve as your background. By doing this, you will get a feel for how to use the **Scatter Settings** panel to scatter the particles of a spray stroke.

To create a background, follow these steps:

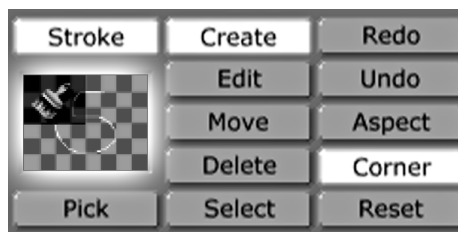
1. Locate the following picon in the **GlobeCaster\Bins\Panam\Tutorials\Space Scene** bin. It is the picon with the white line and a paintbrush on it.



Brush Stroke Picon

2. Click on this picon to select it as the current stroke.

When you click a stroke as you just did, nothing appears in the workspace right away, but the picon does show up as the Current Stroke picon (following figure) on the toolbar.



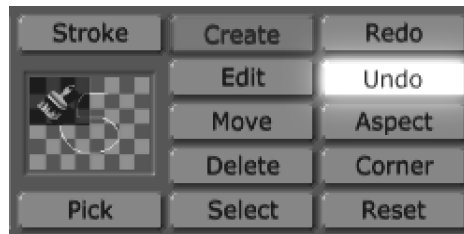
The Current Stroke Picon

3. Draw a stroke in the workspace by clicking in the workspace and dragging.

In the workspace, you see the thin line that you drew.

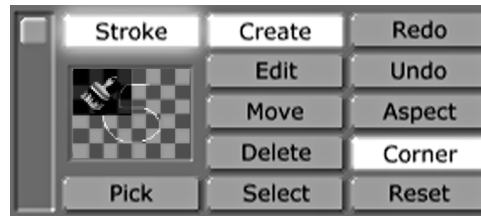
Hold on, that doesn't look like stars – it's just a thin white line. How could you possibly make stars with this stroke? Easy! By changing one of its properties.

4. Click the **Undo** button on the toolbar (following figure) to remove the stroke you just drew. You're going to change the properties of the current stroke, and then draw a new stroke in the workspace.



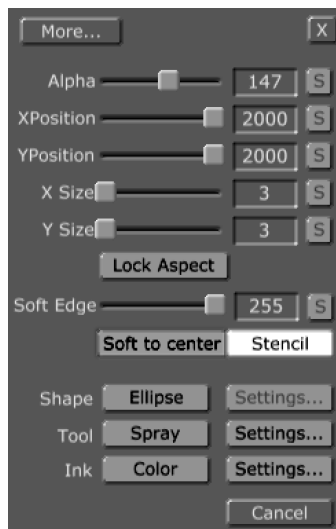
The Undo Button

5. Bring up the **Stroke Properties** panel by clicking the **Stroke** button (following figure).



The Stroke Button

You see the **Stroke Properties** panel (following figure) in the upper left corner of the screen. From this panel, you can change the size, shape, and position of a stroke, and animate these properties. You can also create a text stroke from this panel. For more information about using this panel, see “Stroke Properties Panel” on page 51.



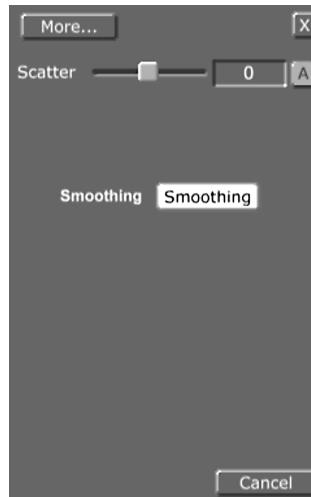
The Stroke Properties Panel

6. Click the **Tool Settings** button (following figure) to bring up the **Scatter Settings** panel.



The Tool Settings Button

You see the **Scatter Settings** panel (following figure) in the upper left corner of your screen. From this panel, you can scatter, or spread out, the particles of the stroke. To make stars, you need to adjust the Scatter value of the stroke to a higher number. For more information about using the **Scatter Settings** panel, see “Scatter Settings Panel” on page 69.



The Scatter Settings Panel

7. Set the Scatter value to **768** by either clicking and dragging the **Scatter** slider (following figure) all the way to the right, or by selecting the numeric value to the right of the slider, typing in **768**, and pressing **Enter** on your keyboard.

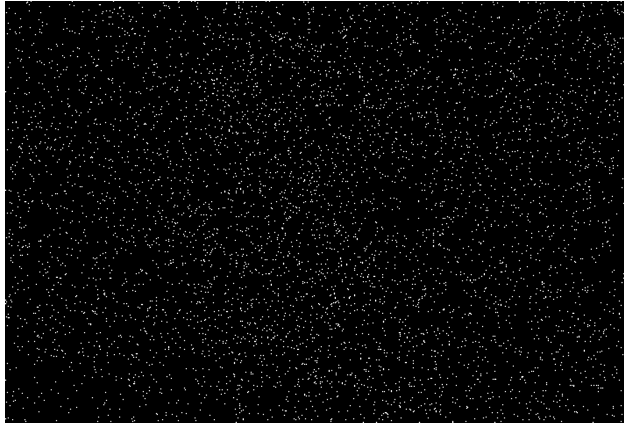


The Scatter Settings Slider Set at 768

8. Paint a stroke across the center of the workspace. Do this a few times to fill the workspace with “stars.”

You see a scattered dot pattern drawn in your workspace.

The following figure illustrates what the workspace should look like with the scattered stroke drawn in it.



The Workspace with the Scattered Stroke

9. Close the **Scatter Settings** panel by clicking the X button in the upper right corner of the panel.

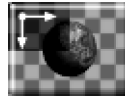
That's how you can turn a thin white stroke into a universe of stars! Now you're ready to add planet earth and its moon to the workspace.

Creating A Simple Animation

Now that you have a proper star field in your workspace, you can add objects to it. In this tour, you will be dragging-and-dropping pre-made elements into the workspace to create a simple space scene.

To add objects to the workspace to create a space scene, follow these steps:

1. Locate the following picon in the **GlobeCaster\Bins\Panam\Tutorials\Space Scene** bin. It is the picon with the planet Earth on it.

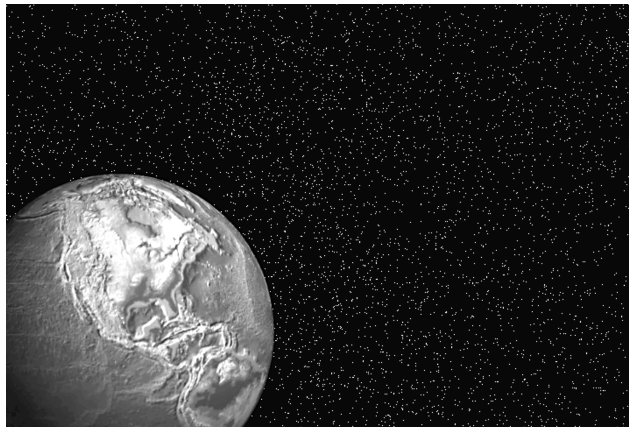


Earth Graphic Picon

2. Double-click on the **Earth graphic** picon to add the Earth object to the workspace.

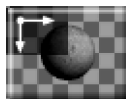
You see the Earth graphic in the lower left corner of your workspace.

The following figure illustrates what your workspace should now look like.



The Earth Graphic in the Workspace

3. Locate the following picon in the **GlobeCaster\Bins\Panam\Tutorials\Space Scene** bin. It is the picon with the moon on it.

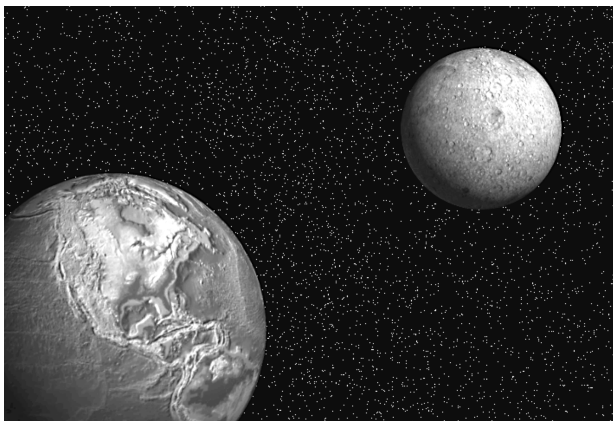


Moon Graphic Picon

4. Double-click on the **moon graphic** picon to add the moon object to the workspace.

You see the moon graphic in the upper right corner of your workspace.

The following figure illustrates what your workspace should now look like.



The Earth Graphic in the Workspace

TIP As you move items into and around the workspace, you may decide you want to return a graphic to its exact original location in the workspace. To do this, do either of the following:

- a. Delete the graphic from the workspace by clicking on it and pressing **Delete** on your keyboard. Then double-click on its picon in the bin.

- b. Delete the graphic from the workspace by clicking on it and pressing **Delete** on your keyboard. Press **Shift** on your keyboard, then drag-and-drop the picon from its bin into the workspace.

Both methods restore the graphic to its original location, or its location when the file was last saved.

Continue on to add text objects to the workspace.

Adding Text To The Workspace

Now, it's time to add text objects to the Panamation workspace. With Panamation, you could easily create custom text, but for this tour, you will be adding pre-made text to the workspace.

To add the text to your workspace, follow these steps:

1. Locate the following picon in the **GlobeCaster\Bins\Panam\Tutorials\Space Scene** bin. It is the picon with the words **Coming Up** on it.



Coming Up Graphic Picon

2. Double-click on the **Coming Up** picon to add the text to the workspace.

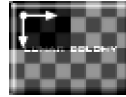
You see the words **Coming Up** in the lower left corner of your workspace.

The following figure illustrates what your workspace should now look like.



The Coming Up Text in the Workspace

3. Locate the following picon in the **GlobeCaster\Bins\Panam\Tutorials\Space Scene** bin. It is the picon with the words **Lunar Colony** on it.



Lunar Colony Graphic Picon

4. Double-click on the **Lunar Colony** picon to add the text to the workspace.

You see the words **Lunar Colony** in the lower left corner of your workspace, under the words **Coming Up**.

The following figure illustrates what your workspace should now look like.



The Lunar Colony in the Workspace

Continue on to learn how to animate the text you just brought into the workspace.

Animating Text

Now that you have a nice still space scene with some type in it, it's time to animate the text. That's right, with Panamation it's easy to animate any stroke in the workspace, including text. That's just what you'll do now.

As you prepare to animate the text, recall that the Coming Up text is one object and the Lunar Colony text is another. By creating the text as two separate objects, you can animate each one separately.

Fading In the First Line of Text

As they appear now, your two text objects are where they should be at the end of the animation, so you should work backward in time. What you want to do first is make the words Coming Up gradually fade in over the course of your animation. This means you need to animate the Alpha property for the text.

To animate the Alpha property for the text, follow these steps:

1. Bring the effect to the end of the animation by clicking the **Last Frame** button (following figure).



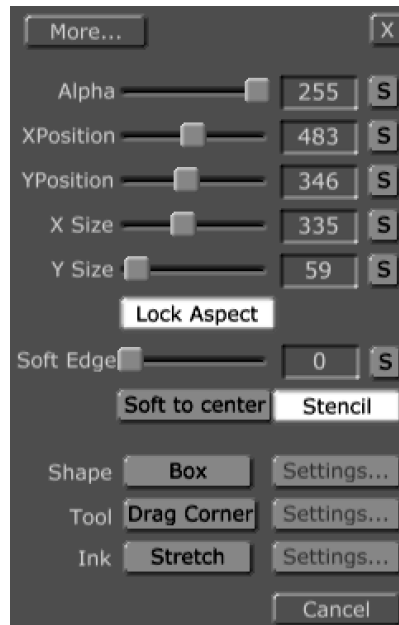
Last Frame Button

2. Bring up the **Stroke Properties** panel for the Coming Up text stroke by right-clicking on the white part of any of the letters of the text and choosing **Properties** from the pop-up menu (following figure).



Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of the screen.



The Stroke Properties Panel

Near the top of this panel is a slider labeled **Alpha**. To the right of this slider is a box displaying the alpha (or transparency) value. To the right of

that is a button with the letter S on it. This is the **Animation Status** button. The S means the property is static, or not animated.

TIP You can change a number of different properties for each of your objects from this panel.

3. The alpha value for the Coming Up text should be set at 255 already (following figure). If it's not, select the value, type the new value of 255, and press **Enter** on your keyboard. You can also use the slider to set alpha values.



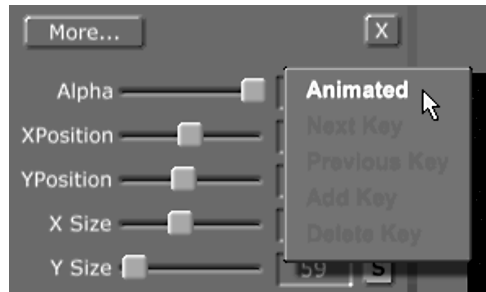
The Alpha Value set at 255

An alpha value of 255 means that the object is completely opaque.

4. Animate the alpha value by clicking the **Animation Status** button (following figure) next to the Alpha value and selecting **Animated** from the pop-up menu (following figure).



The Animation Status Button



Choosing Animated from the Pop-Up Menu

You see the **S** on the **Animation Status** button has changed to an **A**, for animated.

NOTE When a stroke's property, such as position, is animated, a key frame is automatically added for the stroke's position in the effect. Whenever you alter a stroke's property that is animated at another point in the timeline, a keyframe is automatically added at that point in the effect.

Leave the **Stroke Properties** panel open for the time being.

5. Bring the effect to the beginning of the timeline by clicking the **First Frame** button in the Transport Controls (following figure). This button brings the animation to the beginning of the effect.



The First Frame Button

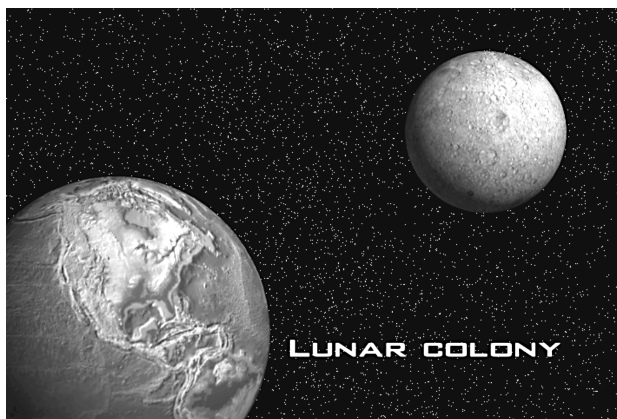
6. Change the alpha value for the Coming Up text to **0** by selecting the alpha value (following figure), typing the new value of **0**, and pressing **Enter** on your keyboard. You can also use the slider to set alpha values. By changing this value, a keyframe is automatically added for the text's transparency in the workspace.



The Alpha Value set at 0

An alpha value of 0 means that the object is completely transparent.

You see that the Coming Up text is completely transparent in the workspace (following figure).



The Workspace with the Coming Up Text Transparent

7. Close the **Stroke Properties** panel by clicking the X button in the upper right corner of the panel.
8. Preview the animation at this point in the project by clicking the **Play** button (following figure) in the Transport Controls.



The Play Button

In your workspace, you see the words Lunar Colony slide in from the right.

To summarize what you've done so far, you set the alpha value of the Coming Up text to go from 0 (transparent) at frame 00:00:00:00.0, to 255 (opaque) at frame 00:00:00:29.1. You did this by turning on the animate option for this property, which automatically adds a key at each frame when a property is changed.

Slide In the Rest Of The Text

The animation is almost done now. You just need to tell the Lunar Colony text to slide in from off screen. To do this, you will animate one of the text stroke's properties, similar to how you animated the alpha value for the Coming Up text.

To slide the Lunar Colony text in from off the screen, follow these steps:

1. Bring the effect to the end of the animation by clicking the **Last Frame** button (following figure).



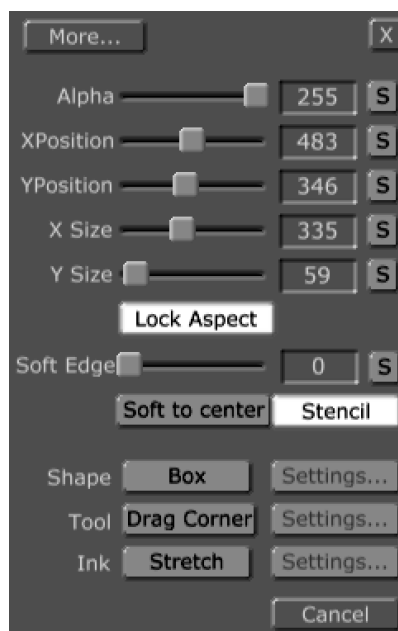
Last Frame Button

2. Bring up the **Stroke Properties** panel for the Lunar Colony text stroke by right-clicking on the white part of any of the letters of the text and choosing **Properties** from the pop-up menu (following figure).



Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of the screen.



The Stroke Properties Panel

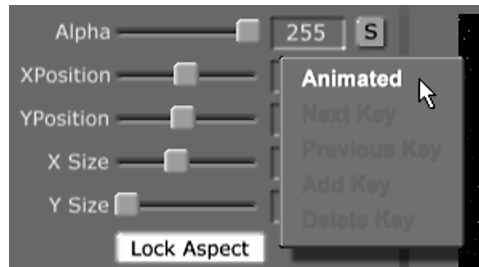
Near the top of this panel is a slider labeled **XPosition**. To the right of this slider is a box displaying the **XPosition** (or horizontal position) value. To

the right of that is a button with the letter S on it. This is the **Animation Status** button. The S means the property is static, or not animated. Since the animation is at the end of the effect, you do not have to change the XPosition value.

3. Animate the **XPosition** value by clicking the **Animation Status** button (following figure) next to the XPosition value and selecting **Animated** from the pop-up menu (following figure).



The Animation Status Button



Choosing Animated from the Pop-Up Menu

You see the S on the **Animation Status** button has changed to an A, for animated.

NOTE When a stroke's property, such as position, is animated, a key frame is automatically added for the stroke's position in the effect. Whenever you alter a stroke's property that is animated at another point in the timeline, a keyframe is automatically added at that point in the effect.

Leave the **Stroke Properties** panel open for the time being.

4. Bring the effect to the beginning of the timeline by clicking the **First Frame** button in the Transport Controls (following figure). This button brings the animation to the beginning of the effect.



The First Frame Button

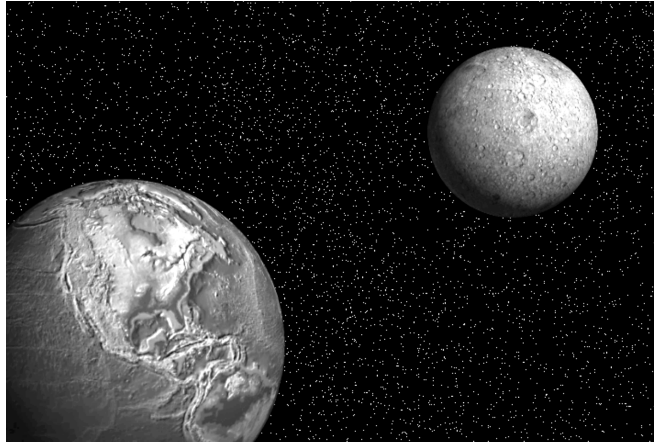
5. Change the XPosition value for the Lunar Colony text to **1000** by selecting the XPosition value (following figure), typing the new value of **1000**, and pressing **Enter** on your keyboard. You can also use the slider to set the XPosition value. By changing this value, a keyframe is automatically added for the text's position in the workspace.



The XPosition set at 1000

In this project, a value of **1000** means that the object's position is off the screen.

You see the Lunar Colony text move off screen, so that it is out of the workspace (following figure).



The Workspace with the Lunar Colony Text Off Screen

6. Close the **Stroke Properties** panel by clicking the X button in the upper right corner of the panel.
7. Preview the animation in Panamation to see how it will behave when it is run in Air Command or loaded into Preditor by clicking the **Play** button (following figure) in the Transport Controls.



The Play Button

In your workspace, you see the words **Coming Up** fade in and the words **Lunar Colony** slide in from the right. When it finishes playing, the workspace should look like the following figure.



The Animation at its End in the Workspace

Continue on to the next section to learn how to save your project

Saving The Project

Now that you've completed your animation, you will need to add a pause point to the animation. By adding a pause point to the effect, when it is run in Air Command, it will pause at a certain point until it is run again. Once you add a pause point, you will then save this effect to one of the bins. This allows you to load the project into Air Command and play it back as an effect whenever you wish.

1. Click the **Last Frame** button (following figure) on the transport controls to ensure that you are at the last frame of your effect. This is where you will add a pause point to the effect.



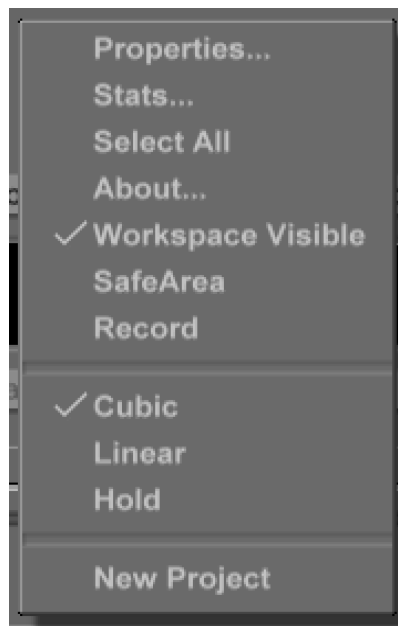
Last Frame Button

2. Bring up the **Workspace Properties** panel by clicking the **Workspace** button (following figure) in the Workspace Controls.



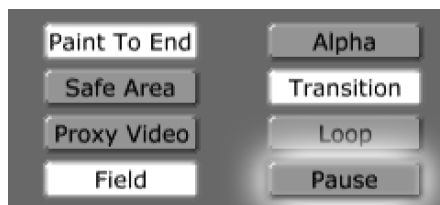
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper left corner of your screen.



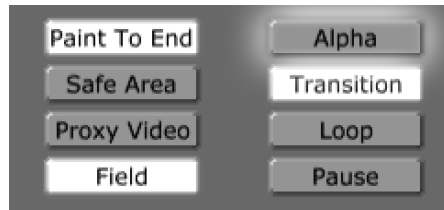
The Workspace Properties Panel

3. In the **Workspace Properties** panel, select the **Pause** button (following figure) to add a pause point to the last frame in your effect. This causes the effect to pause at the end when playing back in Air Command or Predator. Otherwise, the effect would play through without stopping.



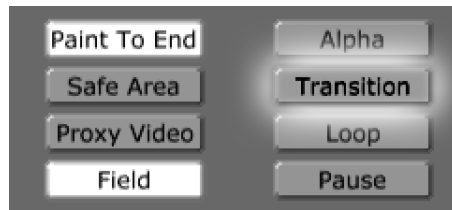
The Pause Button

4. Make sure the **Alpha** button (following figure) is *not* selected. If the **Alpha** button is selected, the background of the effect will be transparent, and a video source will show up behind the star field. Since you want the background to be black, you don't want the **Alpha** button selected.



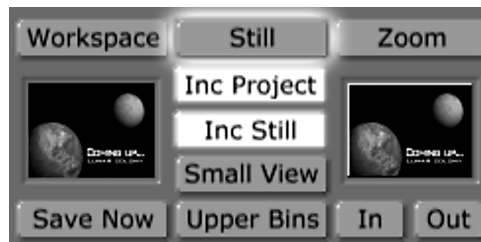
The Alpha Button

5. Make sure that the **Transition** button (following figure) is *not* selected. If the **Transition** button is selected, your effect will be saved as a transition rather than an overlay.

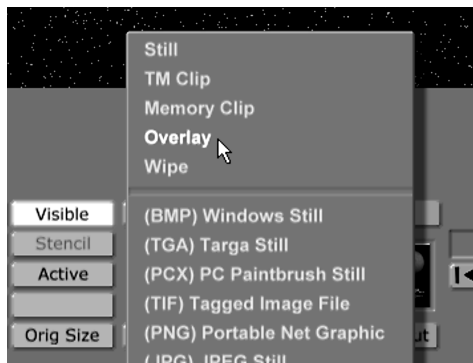


The Transition Button

6. Close the **Workspace Properties** panel by clicking the X button in the upper right corner of the panel.
7. In the Workspace Controls, click the **File Type** button (following figure) and choose **Overlay** from the pop-up menu (following figure).



The File Type Button



Choosing Overlay from the Pop-Up Menu

The **File Type** button should now read **Overlay**. With **Overlay** selected as the file type, when the project is run in Air Command it will act as an overlay. If you had left the file type as a **Still**, then the would be saved as a framestore. If you had chosen **Wipe** from the pop-up menu, your project would be saved as a wipe.

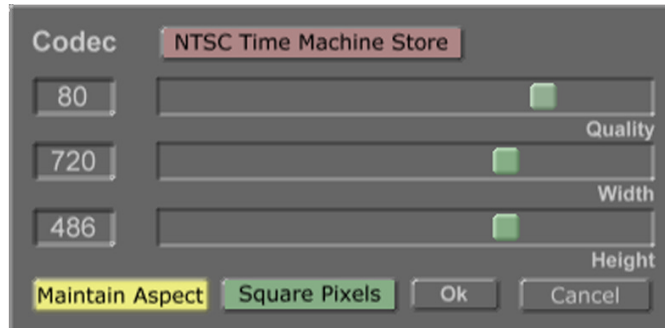
8. You can save your project one of two ways:
 - Drag-and-drop the **Workspace** picon (following figure) into a bin.



The Workspace Picon

- Or, Click the **Save Now** button (figure above) below the **Workspace** picon to save your effect.
9. When a project is ready to be saved a new window appears (following figure), allowing you to modify the quality, width, and height of the

effect being created. To lower the quality of the effect and save hard drive space on your Time Machine, move the quality, height, and width sliders to the left. To increase the quality and dimensions of the effect, move the sliders to the right and you will also notice the values (left side) increase. This will give you a higher quality picture but it will also take up more space on your hard drive.



After you have modified the settings click the OK button to continue saving your effect. Panamation steps through the frames of the animation as it compiles them into an effect. Once the picon appears in the bin, the project is saved, and can be loaded into Air Command and played as an effect.

NOTE Clicking the **Save Now** button (following figure) below the Workspace picon saves your effect in the default bin, which is `GlobeCaster/bins/panam/ projects`.

This tour is over now, but you can learn much more about Panamation by experimenting. An unlimited variety of effects can be created by moving objects around, adjusting their alpha values, etc. Your Panamation adventure is just beginning!

Panamation Reference



Chapter 3

Chapter 3

Reference

This chapter provides reference information for Panamation. It describes buttons, panels, and pop-up menus grouped by task. It is arranged this way so that you can access all the information related to a given topic without flipping through the entire book. Tutorials are located in chapter 4.

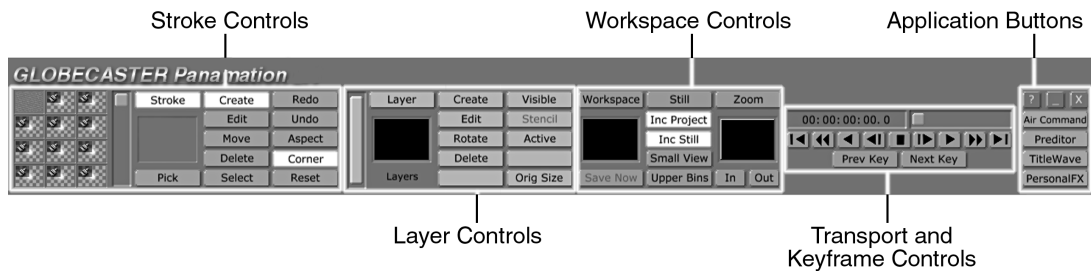
The following topics are covered:

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- Working with strokes..... 47
- Working with layers..... 153
- Working with the workspace..... 173
- Working with the timeline..... 197
- Using the application buttons..... 218

The Panamation Interface

Panamation is a revolutionary tool for paint and animation that, because of its flexibility, you the user can use it to create and animate an unlimited variety of projects. In Panamation, every object, whether it is a digitized clip, text, or a drawn object, is a stroke. That means that every object can be scaled, animated, color corrected, or moved individually. With this and many more features, you the artist have the power to create your vision.

The following figure illustrates Panamation's function controls.



Working With Strokes

Before you dive into each screen and pop-up menu within the program, some basic concepts of how Panamation's strokes operate need to be covered.

Every brush stroke is an object

When you are in the Create mode, every time you click the mouse button down, drag the mouse, and release the mouse button, you are creating a new brush stroke. Each stroke is independent of others around it. This means if you draw the letter T with one stroke for the vertical line and another stroke for the horizontal line at the top, each part of the T could be moved or animated separately.

Brush strokes that alter other objects are objects themselves

Brushes that reverse colors, erase, remove colors, etc. create independent objects in the workspace that can be picked up and moved independently of any object they are modifying.

Even while using an erase tool in the workspace, you are creating individual objects. Instead of erasing sections of other objects, the erase tool creates new objects that make underlying objects disappear. The erase objects can actually be picked up and moved independently of the objects underneath. This can create a "flying hole" type of effect.

All objects are created equal

There is no difference between a picture dragged into the workspace and the brush strokes that you make on top of it. Both can be selected, moved, altered, etc. This is true of file imports as well, such as AVI clips and BMP files. Once the object is in the workspace, it acts like any other object.

Any object can be a brush stroke

This is an extremely powerful part of Panamation. You can turn the object into a brush by right-clicking-and-dragging any object in the workspace into the Texture Properties panel. This enables you to copy styles, use image extraction, and more.

Any object can be altered

Each object has its own set of properties that can be changed or moved. These properties include transparency, color, etc. Shape and size can also be altered. There is even a Shadow Properties panel to add or modify a stroke's shadow. To pull up these properties panels, simply right-click on the object and choose Properties.

Brushes are also altered by changing the properties of the brush itself. You are not limited by the types of brushes that come with the software. You can create the exact type of brush you need. Is the brush stroke too thin? Change it. Need a fuzzy edge on the brush? Add it. The properties panels for a brush are identical to the ones for the individual objects. Just right-click on the Stroke picon to get to the appropriate properties panels.

Any Part of a Brush Stroke can be Animated

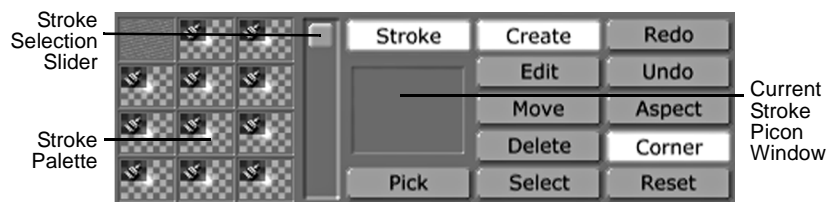
Panamation uses keyframe animation to animate each brush stroke. The idea behind keyframe animation is simple. Pick a starting point and an ending point, and the computer fills in the rest. The type of keyframe animation can be adjusted in the timeline.

Want to move an object around the screen? Just tell Panamation to animate the object's position by right-clicking on the object and selecting animate position. Move the object to the starting point, adjust the timeline slider to the end, and move the object to the ending point. Panamation fills in the frames in between.

Animating movement of strokes is powerful, but just about every property a stroke has can be animated as well. By animating the transparency of a stroke, you can make a stroke fade in or out at your whim.

Stroke Controls

With Panamation's **Stroke Controls** (following figure), you can control how your strokes behave when applied to the workspace. From these controls, strokes can be created, altered, moved, deleted, animated, etc. This is also where you select the mode you are working in. For example, choosing the **Move** mode allows you to move objects around in the workspace.



The Stroke Controls

The following list explains how to use the Stroke Controls:

Current Stroke Picon Window	<p>This is where the current stroke picon is loaded. To load a stroke into this window, click once on the picon of the stroke you wish to use, or drag-and-drop the picon into the window. The selected stroke shows up as the Current Stroke picon. Now you can paint on the screen with the selected brush stroke. Strokes that are created in Panamation and saved in a bin have a small graphic in the upper left corner indicating the type of brush stroke.</p> <p>Right-clicking the picon brings up a pop-up menu, from which you can bring up the Stroke Properties panel (see “Stroke Properties Panel” on page 51 for more information about this panel). From this panel, you can alter the properties, such as shape and size.</p> <p>To save this stroke permanently, drag this picon into a bin. If you have an object in the workspace and want to paint more objects with the same properties, right-click-and-drag the object on to the toolbar. The object appears as the Current Stroke picon.</p>
Stroke Palette	<p>Stores up to 12 of your favorite, most frequently used strokes. Drag-and-drop your stroke picon into one of the twelve slots to create a mini-picon shortcut to the stroke. Click on a mini picon to load it as the Current Stroke.</p>
Stroke Selection Slider	<p>Selects each object on the screen in turn. Useful for selecting objects in the background that would be difficult or impossible to select otherwise. When the slider is all the way down, no objects are selected.</p>
Stroke	<p>Opens the properties panel for the current stroke.</p>
Pick	<p>Selects the properties, such as color and shape, of an object in the workspace as the properties for the current stroke. To use this function, click the Pick button on and then click on an object in the workspace.</p>
Create	<p>With Create selected, the cursor is in create mode. When in create mode, dragging the left mouse button in the workspace creates new strokes or objects.</p>

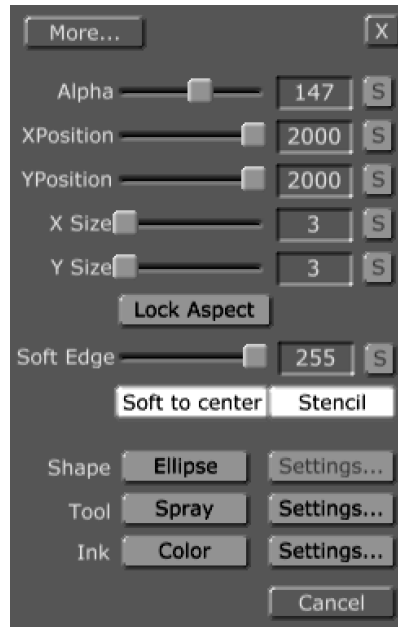
Edit	With Edit selected, the cursor is in edit mode. This allows you to resize a stroke. To do this, click on a stroke in the workspace, and a set of scaling tabs appear around the stroke. Click-and-drag these tabs to resize the stroke. If the selected stroke is a line, clicking on it in edit mode adds scaling tabs to the center of the object. Clicking-and-dragging these tabs changes the shape of the object. This button function can be used in conjunction with others.
Move	With Move selected, the cursor is put in move mode. This mode lets objects be moved around the Panamation workspace. A shortcut to use the move function is to right click and hold on an object. This allows you to move the object, no matter what mode is selected.
Delete	Deletes the selected stroke from the workspace. If no stroke is selected, the last stroke placed in the workspace is deleted.
Select	This mode allows objects to be selected. With Select on, click on the object in the workspace to select it. You see a bounding box appear around the selected object.
Redo	Brings back the last undone object.
Undo	Deletes the last object created if no objects are selected. If an object is selected, clicking the Undo button removes the selected object.
Aspect	Used in conjunction with the Edit button. When this button is clicked on, objects that are scaled maintain their aspect ratio. This means that when Aspect is selected, resizing an object changes only its size, and its shape stays the same.
Corner	Used in conjunction with the Edit button. When this button is clicked off, an object being scaled is resized from a fixed point at its center. When this button is clicked on, an object being scaled is resized from a fixed point adjacent to the corner scaling tab being dragged.
Reset	Resizes the selected stroke so that it fills the entire workspace.

Stroke Properties Panel

The **Stroke Properties** panel (following figure) can be used in two different ways: to alter your brush, or to alter an object already created. If this panel is brought up by clicking the **Stroke** button, or by right-clicking on the **Current Stroke** picon and choosing **Properties** from the pop-up menu, you are altering your brush for future strokes you make in the workspace. To alter existing items in the workspace, right-click on the object itself and choose **Properties** from the pop-up menu. This panel now affects the existing object. Even though these two panels look identical, they perform two different functions, so keep in mind where you've opened the **Stroke Properties** panel.

Part of the power of Panamation is that any of the properties in this panel can be animated. Simply click on the **Animation Status** button for the property and choose **Animate** from the pop-up menu. Once a property has been animated, add a keyframe by clicking on the **Animation Status** button and choosing **Add Keyframe** from the pop-up menu.

Once the **Stroke Properties** panel is brought up, other property panels can be selected by clicking on the button labeled **More** at the top of the panel. These panels are the **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, and **Advanced Color** panels. We'll cover those panels later in this chapter.



The Stroke Properties Panel

NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. The values can also be changed by clicking-and-dragging the value's slider left or right.

Following is a list of how to use the buttons and functions in the **Strokes Properties** panel:

More... Allows you to access other stroke properties panels. Clicking this button brings up a pop-up menu with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse ahead in this chapter for more information on these panels.

Alpha

Changes the transparency (alpha value) of a stroke. A value of 255 is completely opaque, while a value of 0 is completely transparent.

The following figure illustrates a stroke with alpha applied to it.



Stroke with a Transparency Value of 164

XPosition

Adjusts the horizontal position of an object.

YPosition

Adjusts the vertical position of an object.

X Size

Adjusts the width of an object or particles for the stroke. This value ranges from 1 to the full width of the workspace.

Y Size

Adjusts the height of an object or particles for the stroke. This value ranges from 1 to the full height of the workspace.

Lock Aspect

Locks the aspect ratio of the selected object so that the object keeps its original shape if it is resized.

Soft Edges

Adjusts the sharpness of a stroke's edge. A value of 1 is a hard edge. The higher the value, the more diffused the edge is. The highest soft edge value is 255.

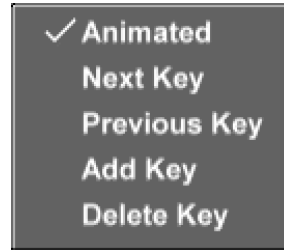
The following figure illustrates a stroke with a soft value applied to it.



Stroke with a Soft Edge Value of 94

**S/A
(Animation
Status)**

Brings up a pop-up menu from which you can animate a property of an object, such as position and transparency. The animation status pop-up menu offers these choices: **Animated**, **Next Key**, **Previous Key**, **Add Key**, and **Delete Key**.



Animation Status Pop-Up Menu

If the **Animation Status** button is labeled **S**, for static, then all choices in the pop-up menu, except **Animated**, are ghosted out.

- Choosing **Animated** changes the button's label to **A**, for animated, and animates the object. Clicking on this button again brings up the pop-up menu with all of the choices active.
- Choosing **Add Key** adds a key at the point selected on the timeline.
- Choosing **Next Key** skips to the next key set on the timeline.
- Choosing **Previous Key** skips to the previous key on the timeline.
- Choosing **Delete Key** deletes the selected key.

Soft to center

Affects the way a soft edge works. Normally, soft edge only affects the edge of a stroke. By turning on the **Soft to center** function, the **Soft Edge** value diffuses the stroke all the way to the center. The higher the **Soft Edge** value, the closer to the center of the stroke the diffusion goes.

Stencil

Makes the selected object a stencil. This object *must* be in a stencil layer for it to work as a stencil (see “Layer Controls” on page 153 for more information about making a stencil layer). When a stencil stroke is in a layer, anything drawn in that layer only appears within the borders of the stencil stroke. Using the stencil function is how you would create a mask.

NOTE: A layer must have an alpha channel to be used as a stencil layer. With the exception of the first layer, all layers automatically have an alpha channel. To use the first layer of a project as a stencil layer, **Alpha** must be turned on in the **Workspace Properties** panel.

To complete a tutorial that uses the stencil function to create an alpha map, see “Using The Stencil Function To Create A Mask” on page 285.

Shape

Controls the overall shape of an object. This also controls the shape of the particles created when using the Spray tool. Clicking the button brings up a pop-up menu with these shape options: **Ellipse**, **Box**, or **Rounded Box** (see “Panamation Shapes” on page 59 for more information about these shapes).



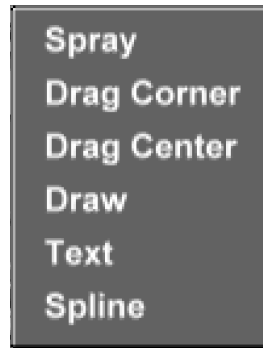
The Shape Pop-Up Menu

Shape Settings

No current function.

Tool

Controls what type of stroke is created when drawing a stroke in the workspace. Clicking the **Tool** button brings up a pop-up menu with these options: **Spray**, **Drag Corner**, **Drag Center**, **Draw**, **Text**, and **Spline** (see “Panamation Tools” on page 63 for more information about these tools).



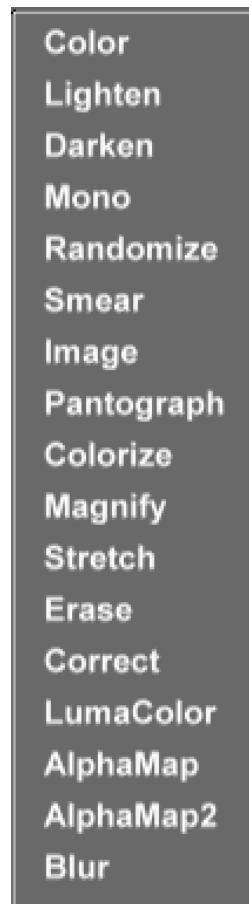
The Tool Pop-Up Menu

Tool Settings

Clicking this button brings up a properties panel, from which you can adjust the properties of a tool. Not all Panamation tools have properties panels. Currently, the **Text** and **Spray** tools are the only tools that have a settings panel. With **Text** set at the tool, clicking the **Settings** button brings up **Text Settings** panel (see “Text Settings Panel” on page 75 for more information about this panel). With **Spray** set at the tool, clicking the **Settings** button brings up **Scatter Settings** panel (see “Scatter Settings Panel” on page 69 for more information about this panel). If a selected tool does not have one, the **Tool Settings** button is ghosted out.

Ink

Selects the ink of the brush stroke or object. Clicking on this button brings up a pop-up menu from which you can choose an ink style. The choices are: **Color**, **Lighten**, **Darken**, **Mono**, **Randomize**, **Smear**, **Image**, **Pantograph**, **Colorize**, **Magnify**, **Stretch**, **Erase**, **Correct**, **LumaColor**, **AlphaMap**, **AlphaMap2**, and **Blur** (see “Panamation Inks” on page 77 for more information about these inks).



The Ink Pop-Up Menu

- Ink Settings** Clicking this button brings up a properties panel, from which you can adjust the properties of an ink. Not all Panamation inks have properties panels. If a selected ink does not have one, the **Ink Settings** button is ghosted out.
- Cancel** Cancels any changes made in this panel and closes it.

Panamation Shapes

From the **Shapes** pop-up menu (following figure), you can adjust the shape of a stroke in the workspace, or choose the shape of a stroke before it is drawn in the workspace.

NOTE Custom shapes, such as a star, octagon, etc., are created with the Spline tool. For more information on creating spline-based shapes, see the section “Panamation Tools” on page 63.

Bring up the **Shapes** pop-up menu by clicking the **Shape** button in the **Stroke Properties** panel.



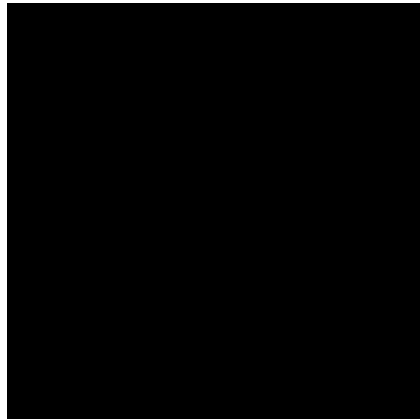
The Shapes Pop-Up Menu

The following list details the choices in this pop-up menu:

Box

Chooses a square as the shape for a stroke.

The following figure illustrates a stroke with the box shape applied.



A Typical Box Stroke

Ellipse

Chooses an ellipse with soft edges as the shape for a stroke.

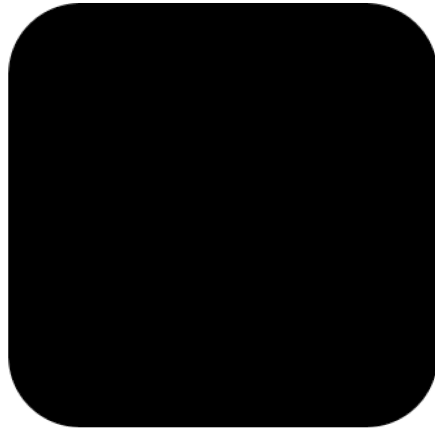
The following figure illustrates a stroke with the ellipse shape applied.



A Typical Ellipse Stroke

Rounded Box Chooses a box with rounded corners, or squarcle, as the shape for a stroke. Adjusting the **Soft Edge** value in the **Stroke Properties** panel adjusts the roundness of the corners of a squarcle.

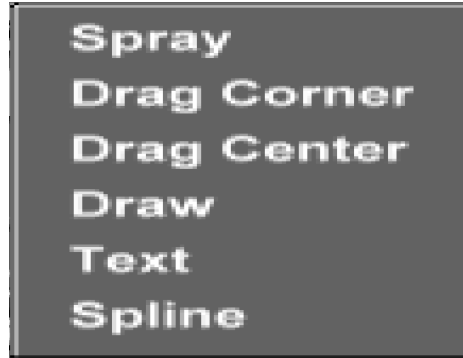
The following figure illustrates a stroke with the rounded box shape applied.



A Typical Rounded Box Stroke

Panamation Tools

From the Tool pop-up menu, you can control what type of stroke is created in the workspace when dragging the mouse, or change the type of a stroke after it is created. All of the tools, except the Spray and Text tools, create single objects. The spray and text tools create a objects made up of particles.



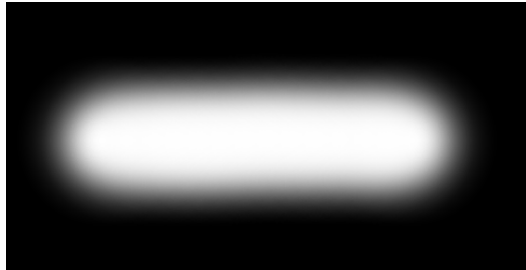
The Tool Pop-Up Menu

Bring up the Tool pop-up menu by clicking the Tool button in the Stroke Properties panel.

Following is a list that explains how the tools function:

Spray	If Spray is selected, drawing a stroke creates a series of objects, called particles, on the workspace. These particles are linked together to form a single object. With Spray selected, clicking the Tool Settings button brings up the Scatter Settings panel (see “Scatter Settings Panel” on page 69 for more information about this panel).
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The following figure illustrates a stroke that was drawn with the spray tool.



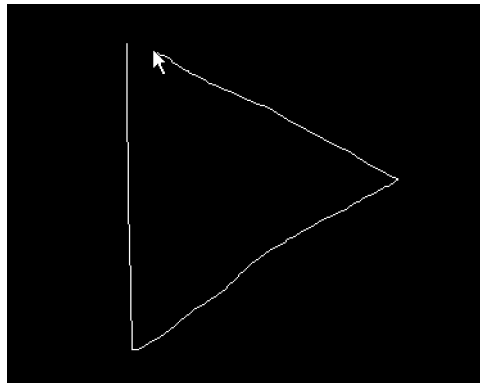
A Stroke Drawn in the Workspace with the Spray Tool

Drag Corner	If Drag Corner is selected, drawing a stroke creates an object that is stretched from its corner.
Drag Center	If Drag Center is selected, drawing a stroke creates an object that is stretched from its center.

Draw

If **Draw** is selected, clicking-and-dragging in the workspace draws a thin white line. This line represents the outline of a shape. When the mouse button is lifted, the start and end points are joined and the shape is filled in with the selected ink.

The following figure illustrates a stroke that was drawn with the draw tool.



A Stroke Drawn in the Workspace with the Draw Tool

Text

If **Text** is selected, add text to the workspace by clicking in the workspace and typing. With **Text** selected, clicking the **Tool Settings** button brings up the **Text Settings** panel (see “Text Settings Panel” on page 75 for more information about this panel).

The following figure illustrates a stroke that was drawn with the text tool.

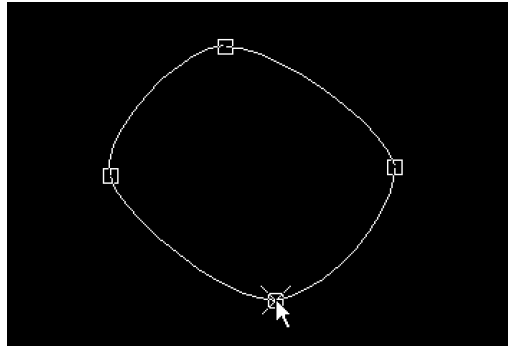


A Stroke Drawn in the Workspace with the Text Tool

Spline

If **Spline** is selected, a stroke that is drawn is made up of splines. A spline is a smooth curve that passes through two or more points. Splines are generated with mathematical formulas.

The following figure illustrates a stroke that was drawn with the spline tool.



A Spline Stroke Drawn in the Workspace with the Spline Tool

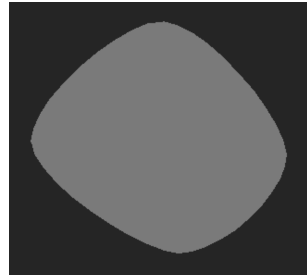
Drawing a spline stroke in the workspace allows you to click and create control points for an object. The spline automatically creates the lines for the object between the control points.

To create a spline made up of straight lines, or to straighten one of the splines edges, right-click on a line and choose **Linear** from the pop-up menu. To change it back to a curved edge, right-click on the line again and choose **Spline** from the pop-up menu.

To add points to the spline, click in the spot where you want the new point. To delete a point, right-click on the point and choose **Delete Point** from the pop-up menu.

To complete the shape so that it can have an ink applied to it, right-click in the object and choose **Complete Shape**, or press **Enter** on the keyboard. Once the object is created, it is filled in with the selected ink.

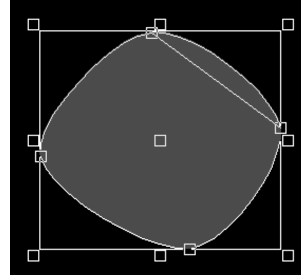
The following figure illustrates a completed spline in the workspace.



A Completed Spline

Once a shape is completed, spline points can be added or edited by clicking the **Edit** button on in the Stroke Controls and then clicking on the spline stroke. Clicking on the spline puts edit points around it. Spline edit points can be added, deleted, or moved the same way they were before the shape was completed.

The following figure illustrates a spline that was clicked on with the **Edit** button selected in the Stroke Controls.



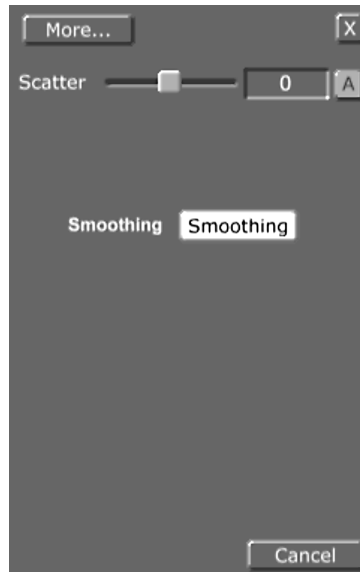
Completed Spline with Edit Points

To do a tutorial that teaches how to use the spline tool, see “Creating A Custom Brush” on page 222.

Scatter Settings Panel

From the **Scatter Settings** panel (following figure) you can break up the particles of an object. If the panel was brought up for a spray stroke, then changing the scatter settings breaks the stroke up into particles, or dots. If it was brought up for a text stroke, then changing the scatter settings breaks up the individual letters in the stroke.

Bring up the **Scatter Settings** panel by choosing **Spray** as the tool in the **Stroke Properties** panel, and then clicking the **Tool Settings** button. The **Scatter Settings** panel appears in place of the **Stroke Properties** panel. The **Scatter Settings** panel for text is brought up the same way.



The Scatter Settings Panel

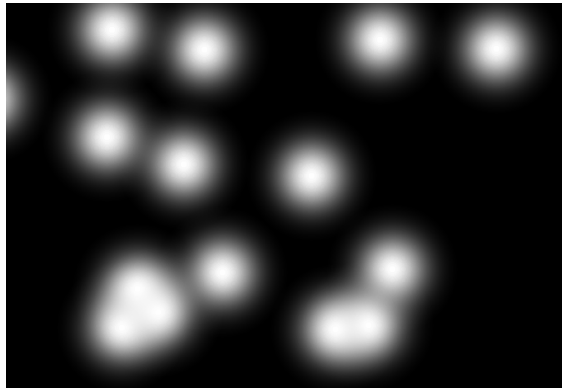
The following list explains how to use the **Scatter Settings** panel:

- | | |
|----------------|--|
| More... | Allows you to access other properties panels. Clicking this button brings up a pop-up menu with the options to bring up these panels: Stroke , Shadow , Wipes , Particles , Texture , or Advanced Color . Browse ahead in this chapter for more information on these panels. |
|----------------|--|

Scatter

Breaks up the particles in a stroke, or breaks up the letters of a text stroke. The higher the value (positive or negative), the greater the distance between the particles or letters is. The scatter value can be changed by clicking-and-dragging the slider left or right, or by clicking on the numeric value, typing in a new value, and hitting **Enter** on your keyboard.

The following figure illustrates a stroke with its particles scattered.



A Scattered Stroke

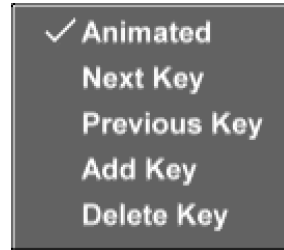
The following figure illustrates a text stroke with its particles scattered.



A Scattered Text Stroke

**S/A
(Animation
Status)**

Brings up a pop-up menu from which you can animate a property of an object, such as position and transparency. The animation status pop-up menu offers these choices: **Animated**, **Next Key**, **Previous Key**, **Add Key**, and **Delete Key**.



Animation Status Pop-Up Menu

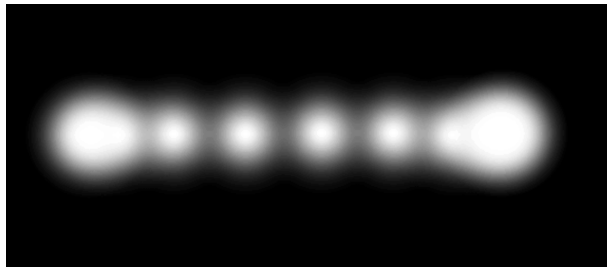
If the **Animation Status** button is labeled **S**, for static, then all choices in the pop-up menu, except **Animated**, are ghosted out.

- Choosing **Animated** changes the button's label to **A**, for animated, and animates the object. Clicking on this button again brings up the pop-up menu with all of the choices active.
- Choosing **Add Key** adds a key at the point selected on the timeline.
- Choosing **Next Key** skips to the next key set on the timeline.
- Choosing **Previous Key** skips to the previous key on the timeline.
- Choosing **Delete Key** deletes the selected key.

Smoothing

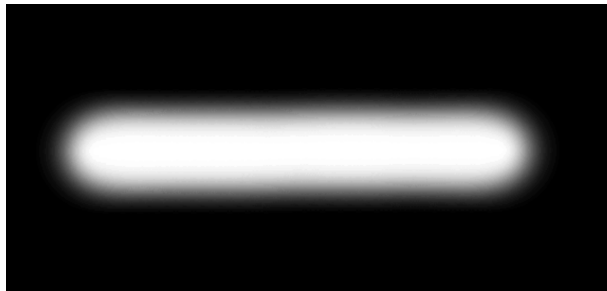
With **Smoothing** selected, the particles of an object have a consistent size and shape so that if you draw a straight line, it has a consistent thickness. Also, with **Smoothing** selected, Panamation tries to fill in the gaps between particles.

The following figure illustrates a stroke with **Smoothing** off.



A Stroke with Smoothing Off

The following figure illustrates a stroke with **Smoothing** on.



A Stroke with Smoothing On

Cancel

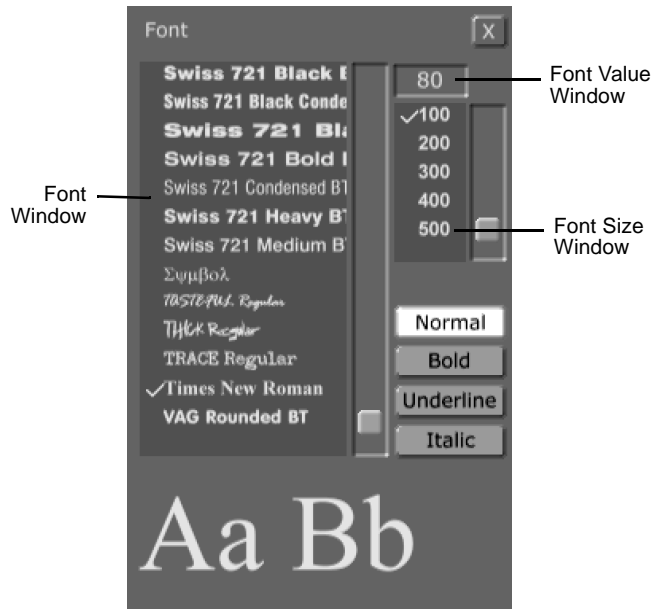
Cancels any changes made in this panel and closes it.

Text Settings Panel

From the Text Settings panel (following figure), you can choose a font and size for your text stroke, or change the font and font size for a text stroke that was already created.

NOTE Fonts are added in Windows by installing fonts in the winnt/fonts directory. See your Windows manual for more information on installing fonts in Windows.

Bring up this panel by choosing **Text** as the tool in the **Stroke Properties** panel, and then clicking the **Text Settings** button. The panel appears just below the **Stroke Properties** panel.



The Text Settings Panel

The following list details how to use this panel:

Font Window Lists the available fonts. Apply a font to a text stroke by clicking on the name of a font. Right-clicking on a font name brings up a pop-up menu containing the font's full name.

Font Value Window	Displays the size of the font. Change this value by clicking on it, typing a new value, and pressing Enter on your keyboard, or by clicking on it and dragging up or down. The font size is also changed by clicking a preset value in the Font Size window.
Font Size Window	This window displays the preset font sizes. Choose one of these font sizes by clicking on it.
Normal	Keeps the text at its normal default settings, or reverts it to the default settings if changes were made. The default setting has not underline, and is not bold or italic.
Bold	Makes the text bold.
Underline	Puts an underline under the text.
Italic	Makes the text italic.

Panamation Inks

From the **Ink** pop-up menu (following figure) you can choose the ink of a stroke in the workspace, or alter the ink of a stroke that has already been created. The ink determines the how the stroke behaves. For example, the **Magnify** ink makes a stroke magnify objects underneath it. Panamation has many built-in inks with specialized uses. Some inks are designed to modify the look or texture of other objects.

Bring up the **Ink** pop-up menu by clicking the **Ink** button in the **Stroke Properties** panel.



The Ink Pop-Up Menu

The following list explains how the inks behave when applied to strokes:

Color Adds a color or gradient to a stroke. This color or gradient is defined in the **Color Palette** panel, which is accessed by selecting **Color** as the ink and clicking the **Ink Settings** button (see “Color Palette And Gradient Editor Panel” on page 99 for more information about the **Color Palette** panel).

The following figure illustrates a stroke with the **Color** ink applied to it.



A Stroke with a Color Ink Applied

Lighten

Lightens the colors in objects underneath the stroke. This ink can be used to add additional lighting to an image after it was taken. To adjust the amount of lighting, change the **Transparency** value of the stroke in the **Stroke Properties** panel (see “Stroke Properties Panel” on page 51 for more information about this panel).

The following figure illustrates a stroke with the **Lighten** ink applied to it.



A Stroke with a Lighten Ink Applied

Darken

Darkens the colors in objects underneath the stroke. This ink can be used to add additional shadows. To adjust the darkness, change the **Transparency** value of the stroke in the **Stroke Properties** panel (see “Stroke Properties Panel” on page 51 for more information about this panel).

The following figure illustrates a stroke with the **Darken** ink applied to it.



A Stroke with a Darken Ink Applied

Mono

Strips the color out of the area under the stroke. This is useful for changing an object to black and white.

Randomize Randomizes the pixels under the stroke. This gives the stroke a random noise effect.

The following figure illustrates a stroke with the **Randomize** ink applied to it.



A Stroke with a Randomize Ink Applied

Smear

Smears the colors under the stroke.

The following figure illustrates a stroke with the **Smear** ink applied to it.



A Stroke with a Smear Ink Applied

Image

Reproduces the image loaded in the workspace, starting in the upper-left corner.

The following figure illustrates a stroke with the **Image** ink applied to it.



A Stroke with an Image Ink Applied

Pantograph

Gives the ability to duplicate sections of an image. The Pantograph ink allows part of an image to be offset and copied at the new offset point. By holding down the Ctrl key and dragging the mouse, you set the amount of offset the image has when you use the Pantograph ink.

The following figure illustrates a stroke with the **Pantograph** ink applied to it.



A Stroke with a Pantograph Ink Applied

Colorize

Replaces the color from the area under the stroke with color selected in the **Color Palette and Gradient Editor** panel (see the section “Color Palette And Gradient Editor Panel” on page 99 for more information about this panel).

To use this function, the Gradient Style in the **Color Palette and Gradient Editor** panel must be set as Solid.

The following figure illustrates a stroke with the **Colorize** ink applied to it.



A Stroke with a Colorize Ink Applied

Magnify

Magnifies the area under the stroke.

The following figure illustrates a stroke with the **Magnify** ink applied to it.



A Stroke with a Magnify Ink Applied

Stretch

Uses a selected graphic as the ink. This is the default ink for any type of still image, ClipMem, Time Machine clip, or AVI file, as the graphic is stretched across the surface of the brush stroke. To use the Stretch ink, a graphic must be loaded into the graphics window in the **Texture Properties** panel (See “Texture Properties Panel” on page 124 for more information about this panel).

The following figure illustrates a stroke with the **Stretch** ink applied to it.



A Stroke with a Stretch Ink Applied

Erase

Erases the layer behind the stroke. Since the erase stroke is an object, it can be moved around or even animated.

The following figure illustrates a stroke with the **Erase** ink applied to it.



A Stroke with an Erase Ink Applied

Correct

Color corrects underlying objects using the gradient scale in the **Color Palette** and **Gradient Editor** panel. Clicking the **Correct Settings** button, right of the **Ink** button, brings up the **Color Palette** panel (see “**Color Palette And Gradient Editor Panel**” on page 99 for more information about this panel).

The following figure illustrates a stroke with the **Correct** ink applied to it.



A Stroke with a Correct Ink Applied

LumaColor

Functions similarly to the **Correct** ink, except that the correction is based on the luminosity values of the underlying image. This ink strips the existing color from the underlying object before adding new colors.

The following figure illustrates a stroke with the **LumaColor** ink applied to it.



A Stroke with a LumaColor Ink Applied

AlphaMap

Works in conjunction with the **Soft Edge** value in the **Stroke Properties** panel and the functions of the **Color Palette and Gradient Editor** panel to add a glowing border around a stroke. For more information about adjusting the **Soft Edge** value, see the section “Stroke Properties Panel” on page 51. For more information about using the **Color Palette and Gradient Editor** panel, see the section “Color Palette And Gradient Editor Panel” on page 99.

To use the **AlphaMap** ink once it is applied to a stroke, first adjust the **Soft Edge** value for the selected stroke so that the stroke has a soft, blurred edge. Next, add and adjust colors for the stroke in the **Color Palette and Gradient Editor** panel. To achieve a well-defined border for the stroke, there must be at least three color dots in the **Gradient Editor** (following figure).

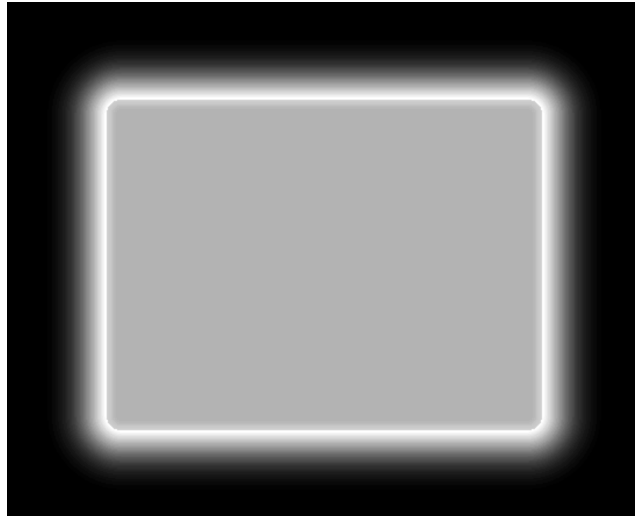
The following figure illustrates the **Gradient Editor** settings in the **Color Palette and Gradient Editor** panel for the strokes in following illustrations.



The Gradient Editor settings for the Stroke

The left-most color in the **Gradient Editor** is the color that is applied to the soft border around the stroke. By doing this, a glowing border is applied to your stroke (following figure).

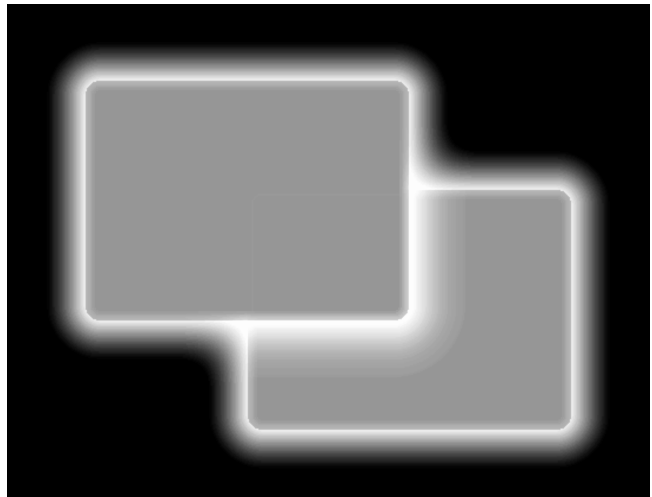
The following figure illustrates the AlphaMap ink applied to a stroke.



The AlphaMap Ink Applied to a Stroke

The following figure illustrates the **AlphaMap** ink applied to two overlapping strokes.

When the **AlphaMap** ink is applied to overlapping strokes, the strokes remain separated (following figure). This differs from the **AlphaMap2** ink, which combines overlapping strokes.



Overlapping Strokes with the AlphaMap Ink Applied to Them

AlphaMap 2 Works in conjunction with the **Soft Edge** value in the **Stroke Properties** panel and the functions of the **Color Palette and Gradient Editor** panel to add a glowing border around a stroke. For more information about adjusting the **Soft Edge** value, see the section “Stroke Properties Panel” on page 51. For more information about using the **Color Palette and Gradient Editor** panel, see the section “Color Palette And Gradient Editor Panel” on page 99.

NOTE: To use the **AlphaMap2** ink, the ink must be applied to a stroke that is on a layer with an alpha channel. To use this ink on the first layer of a project, the Alpha must be turned on in the **Workspace Properties** panel. Additional layers that are created in Panamation have built-in alpha channels.

To use the **AlphaMap** ink once it is applied to a stroke, first adjust the **Soft Edge** value for the selected stroke so that the stroke has a soft, blurred edge. Next, add and adjust colors for the stroke in the **Color Palette** and **Gradient Editor** panel. To achieve a well-defined border for the stroke, there must be at least three color dots in the **Gradient Editor** (following figure).

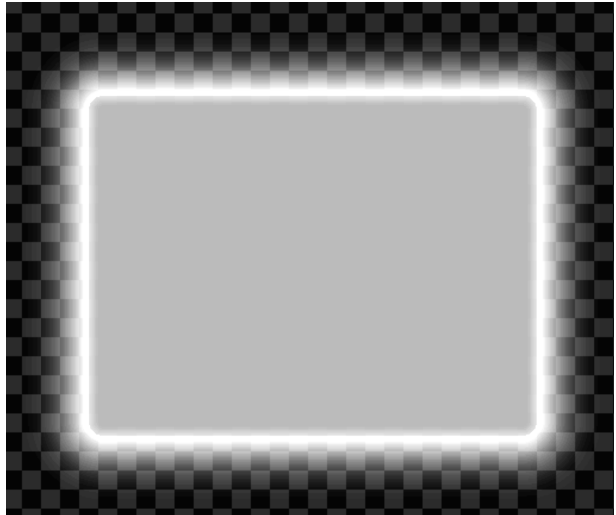
The following figure illustrates the Gradient Editor settings in the **Color Palette** and **Gradient Editor** panel for the strokes in following illustrations.



The Gradient Editor settings for the Stroke

The left-most color in the **Gradient Editor** is the color that is applied to the soft border around the stroke. By doing this, a glowing border is applied to your stroke (following figure).

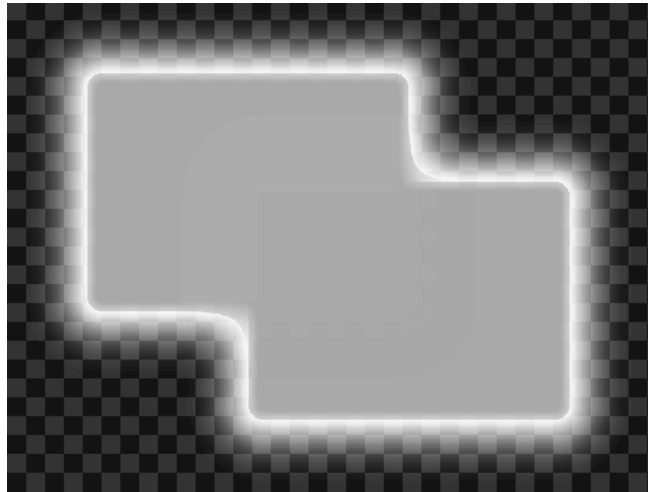
The following figure illustrates the AlphaMap2 ink applied to a stroke.



The AlphaMap2 Ink Applied to a Stroke

When the **AlphaMap2** ink is applied to a stroke that overlaps another stroke, the overlapping strokes are combined (following figure). For the strokes to be combined, the underlying stroke does *not* need to have the **AlphaMap2** ink applied to it. The way this ink functions differs from the **AlphaMap** ink, which keeps overlapping strokes separated.

The following figure illustrates the **AlphaMap2** ink applied to two overlapping strokes.



Overlapping Strokes with the AlphaMap2 Ink Applied to Them

Blur

Blurs the area under the stroke. The value of the blur can be adjusted by changing the **Soft Edge** value in the **Stroke Properties** panel (see “Stroke Properties Panel” on page 51 for more information about this panel).

The following figure illustrates a stroke with the **Blur** ink applied to it.

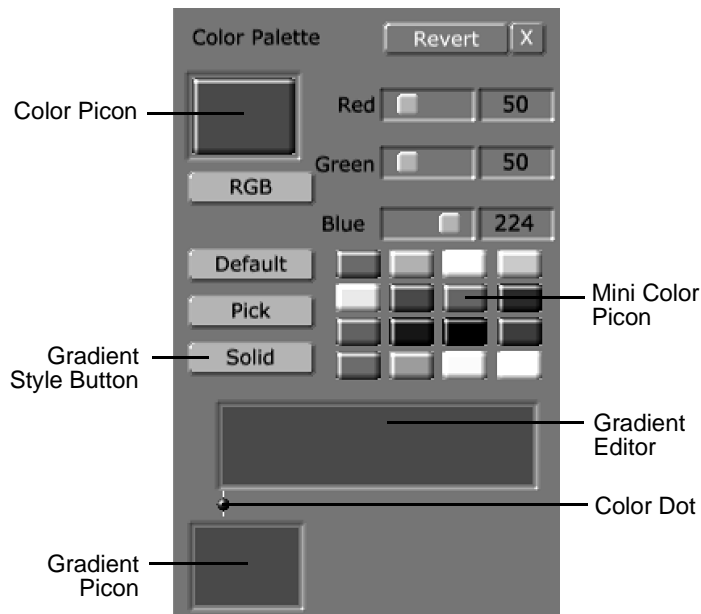


A Stroke with a Blur Ink Applied

Color Palette And Gradient Editor Panel

The Color Palette and Gradient Editor panel has many functions, depending on which ink was selected when this panel was brought up. If this panel was brought up with **Color** chosen as the ink, then making adjustments in the panel adjusts the color of the stroke. If it was brought up with **Correct** chosen as the ink, then making adjustments in the Color Palette adjusts color correction for the object under the stroke. If it was brought up with **LumaColor** chosen as the ink, then making adjustments in the panel adjusts the color applied to the luminosity values of the object under the stroke. If the panel was brought up with **AlphaMap** or **AlphaMap2** chosen as the ink, then making adjustments in the panel adjusts the color applied to the stroke and the color applied to the soft edge of the stroke.

Bring up this panel by choosing **Color**, **Colorize**, **Correct**, **LumaColor**, **AlphaMap**, or **AlphaMap2** as the ink in the **Stroke Properties** panel, and then clicking the **Ink Settings** button. The panel appears just below the **Stroke Properties** panel.



The Color Palette and Gradient Editor Panel

The following list explains the functions of the **Color Palette and Gradient Editor** panel:

Revert	Removes any changes made and resets to its original color.
Color Picon	<p>Represents the current color. When you click one of the Mini Color picons, that color loads automatically as this picon. You can then drag the value sliders to change the color. You can also drag this picon onto one of the Mini Color picons to place it there for later use. You can also drag-and-drop the picon into the Gradient Editor.</p> <p>Save this color picon by clicking-and-dragging it into a bin.</p>
RGB/HSV	Allows you to choose which format you want to change a color in. Click on the button and select RGB or HSV from the pop-up menu that appears. RGB is the three additive primary colors used to construct video images (R ed, G reen, B lue). HSV is the three properties of color (H ue, S aturation, V alue). You can get almost any color by changing these values.
Value Sliders	Clicking-and-dragging a slider changes the values of the color. If RGB was selected with the RGB/HSV button, the sliders adjust the red, green, and blue values. If HSV was selected with the RGB/HSV button, the sliders adjust the hue, saturation, and value. These values can also be adjusted by typing a new value in the boxes to the right of the sliders and pressing Enter on your keyboard.

Mini Color Picons A set of small picons in the panel. You can drag-and-drop them into the **Color** picon, or click them to load them for editing. You can also drag-and-drop the **Color** picon into one of these mini-picons to save colors you create for later use. Finally, you can drag-and-drop any of the **Mini Color** picons into the **Gradient Editor**.

A color picon saved in a bin can be dragged-and-dropped onto any of the mini color picons.

If at any time you want to clear out saved mini-picons, click the **Default** button. The mini-picons are restored to default colors, and *all* custom colors are deleted.

Default Resets the mini-color picons to default colors. If you click this, you loose any custom colors you have loaded into the **Mini Color** picons.

Pick Lets you select any color that is on your computer screen. To do this, click on the **Pick** button and drag the mouse pointer around the monitor. As you do so, the color that is directly under the mouse pointer appears in the **Color** picon. Release the mouse button to select a color. You can then edit the color.

Gradient Style Button Selects the shape or style of the color or gradient. The current style is displayed on the button's face. The default is **Linear**. Clicking on the **Gradient Style** button brings up a pop-up menu with these options: **Solid**, **Linear**, **4 Corner**, **Circular**, **Bevel Box**, **Horizontal**, **Vertical**, and **4 Side** (see "Gradient Styles" on page 103 for more information about the gradient styles).

Gradient Editor

A small workspace where you create gradients. You can drag-and-drop **Mini Color** picons or **Color** picons into any spot on the editor to add the color to the gradient you are making. The color appears in the editor, and a dot (the **Color dot**) appears below the color. Panamation then creates a gradient transition from one color to another.

The first color you drop into the editor appears on the far right side. A transition is then created between the color on the far left and this new color. Any other colors you drop into the editor appear where your mouse pointer is aimed.

Color Dot

Represents the position of a color in the Gradient Editor. Position the dots within the editor by clicking-and-dragging them. (The only dots you cannot move are the one on the far left and the one on the far right. These have fixed positions.)

You can change the color of any dot. Click on a dot (the bar behind it turns white) to select it. Next, click on a **Mini Color** picon or **Color** picon of the color you want. The selected dot changes to that color.

You can delete a dot by right-clicking on it and selecting **Delete** from the pop-up menu. The left- and right-most color dot cannot be deleted, but it can be changed to another color.

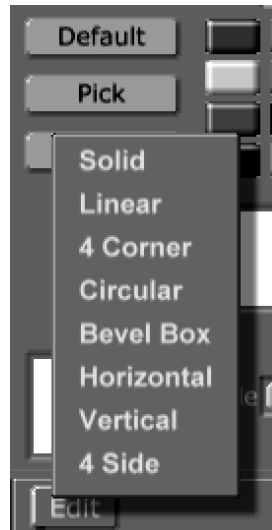
Gradient Picon

Represents the gradient created with the Gradient Editor. As you alter your gradient, this picon updates. Save the Gradient picon by dragging-and-dropping it into a bin. You can use this gradient later by clicking-and-dragging it from the bin to the gradient picon window.

Gradient Styles

Choosing one of the eight gradient styles from the **Gradient Styles** pop-up menu (following figure) determines the direction of the gradient and how the colors of a gradient blend together. For example, choosing **Linear** as the blend style creates a gradient that blends from one color into another.

The **Gradient Styles** pop-up menu is brought up by clicking the **Gradient Styles** Button in the **Color Palette and Gradient Editor** panel.



The Gradient Styles Pop-Up Menu

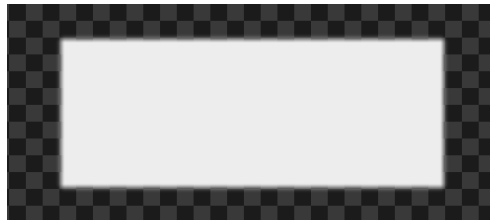
The following list explains the gradient styles:

Solid Applies a solid color to selected stroke.



The Gradient Editor with Solid Selected as the Gradient Style

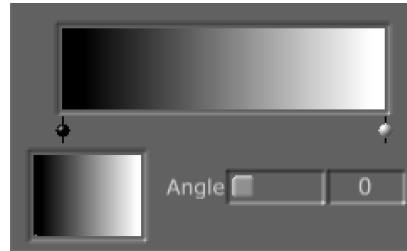
The following figure illustrates a stroke with a **Solid** gradient applied to it.



A Stroke with a Solid Gradient Applied

Linear

Applies a linear blend to selected stroke.



The Gradient Editor with Linear Selected as the Gradient Style

The following figure illustrates a stroke with a **Linear** gradient applied to it.



A Stroke with a Linear Gradient Applied

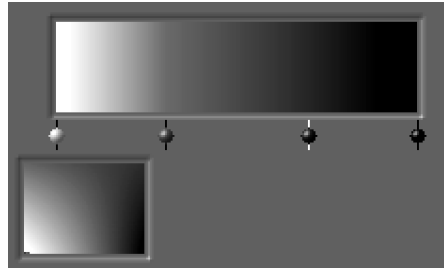
Change the angle of the blend by clicking-and-dragging the Angle slider (following figure). The angle can also be changed by clicking on the numeric value and typing a new value. The angle value represents the angle's measurement in degrees.



The Angle Slider

4 Corner

Adds a blend that blends in from each corner of an object. Adding four colors to the Gradient Editor best shows how this function works, as each color blends in from a separate corner.



The Gradient Editor with 4 Corner Selected as the Gradient Style

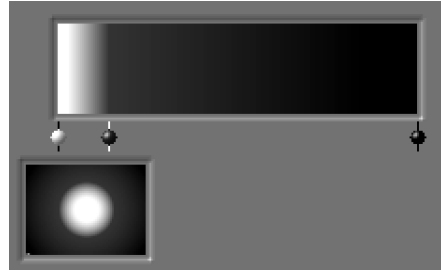
The following figure illustrates a stroke with a 4 Corner gradient applied to it.



A Stroke with a 4 Corner Gradient Applied

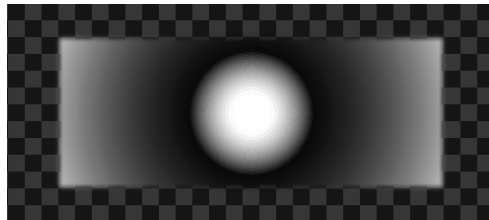
Circular

Adds a circular blend to a selected stroke. The center of the blend can moved by right-clicking on the gradient picon and dragging the center to a new position.



The Gradient Editor with Circular Selected as the Gradient Style

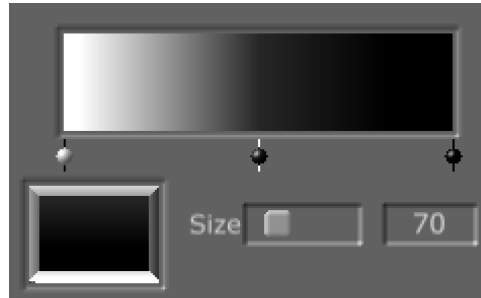
The following figure illustrates a stroke with a **Circular** gradient applied to it.



A Stroke with a Circular Gradient Applied

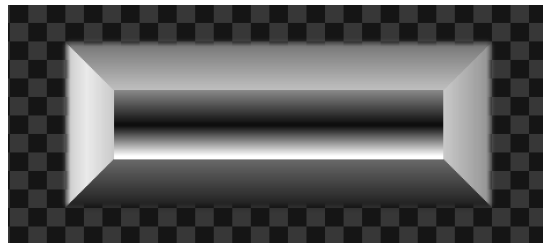
Bevel Box

Adds a beveled edge to a selected stroke.



The Gradient Editor with Bevel Box Selected as the Gradient Style

The following figure illustrates a stroke with a **Bevel Box** gradient applied to it.



A Stroke with a Bevel Box Gradient Applied

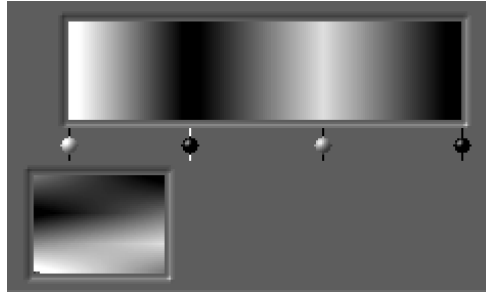
Change the size of the bevel by clicking-and-dragging the Size slider (following figure). The bevel's size can also be changed by clicking on the numeric value and typing a new value. The higher the value, the larger the bevel.



The Size Slider

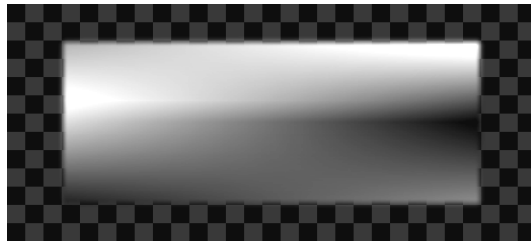
Horizontal

Adds a blend that looks similar to a disco lighting effect. Moving a color dot right or left in the gradient editor moves the color left or right in the object.



The Gradient Editor with Horizontal Selected as the Gradient Style

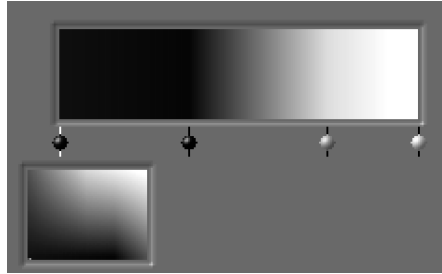
The following figure illustrates a stroke with a **Horizontal** gradient applied to it.



A Stroke with a Horizontal Gradient Applied

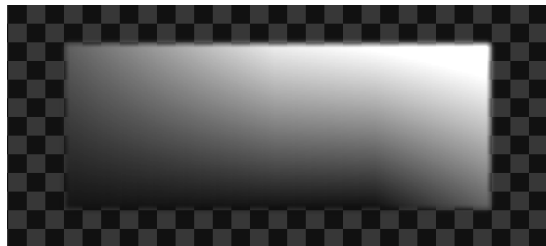
Vertical

Adds a blend that looks similar to a disco lighting effect. Moving a color dot right or left in the gradient editor moves the color up or down in the object.



The Gradient Editor with Vertical Selected as the Gradient Style

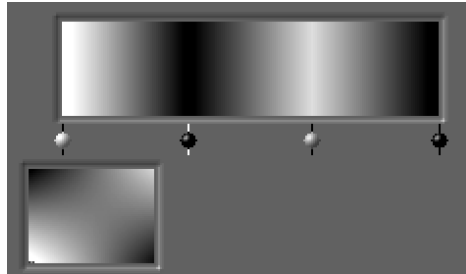
The following figure illustrates a stroke with a **Vertical** gradient applied to it.



A Stroke with a Vertical Gradient Applied

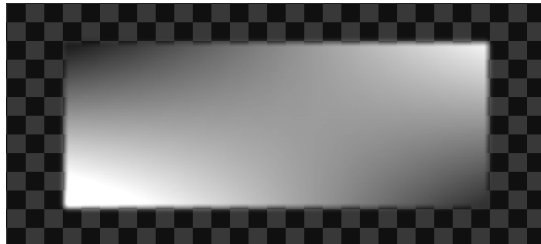
4 Side

Adds a subtle blend to an object in which the colors blend in from the sides of the object.



The Gradient Editor with 4 Side Selected as the Gradient Style

The following figure illustrates a stroke with a **4 Side** gradient applied to it.



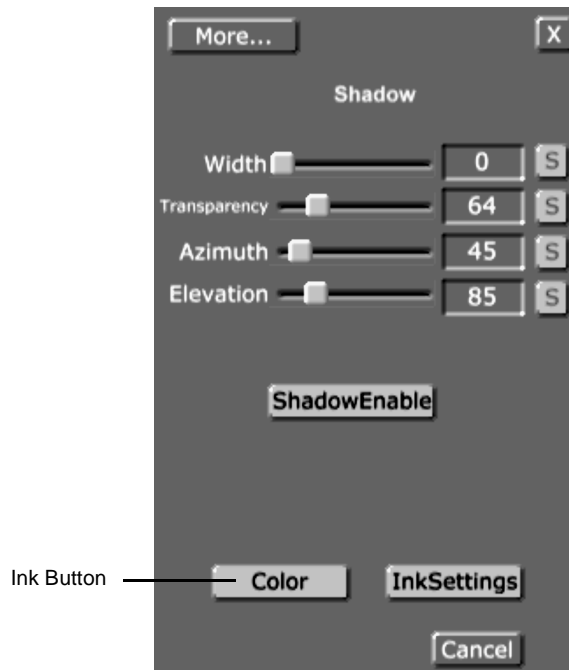
A Stroke with a 4 Side Gradient Applied

Shadow Properties Panel

In Panamation, shadows are actually built into each object. The **Shadow Properties** panel (following figure) gives you the power to modify the shadow to your exact specifications. From this panel, you can enable the shadow and adjust its size, position, transparency, and even its ink.

To do a tutorial that uses the **Shadow Properties** panel to add a shadow to a text stroke, see “Creating A Text Stroke With Shadow” on page 305.

Bring up the **Shadow Properties** panel by clicking the **Stroke** button in the **Stroke Controls**, clicking the **More** button in the upper left corner of the **Stroke Properties** panel, and choosing **Shadow** from the pop-up menu.

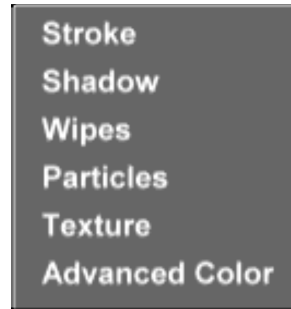


The Shadow Properties Panel

NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. The values can also be changed by clicking-and-dragging the value’s slider left or right.

The following list explains the functions of the **Shadow Properties** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse ahead in this chapter for more information on these panels.



The More... Pop-Up Menu

Width

Adjusts the softness of the shadow's edges. The higher the width value, the softer the shadow's edge. A value of 0 is a special value that results in no shadow.

The following figure illustrates an object with a shadow that has a **Width** value of 31.



Object with Shadow that has a Width Value of 31

Transparency

Adjusts the transparency of the shadow. The higher the transparency value, the darker the shadow.

The following figure illustrates an object with a shadow that has a **Transparency** value of 39.



Object with Shadow that has a Transparency Value of 39

Azimuth

Adjusts the position of the shadow to simulate a change in the position of the light source falling on the object.

The following figure illustrates an object with a shadow that has an **Azimuth** value of 218.



Object with Shadow that has an Azimuth Value of 218

Elevation

Adjusts how far away the shadow is from the object. The higher the value, the farther the shadow is from the object.

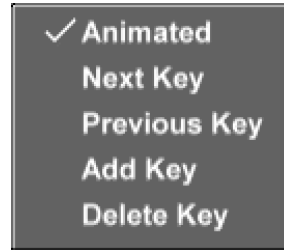
The following figure illustrates an object with a shadow that has an **Elevation** value of 49.



Object with Shadow that has an Elevation value of 49

S/A
(Animation
Status)

Brings up a pop-up menu from which you can animate a property of an object, such as position and transparency. The animation status pop-up menu offers these choices: **Animated**, **Next Key**, **Previous Key**, **Add Key**, and **Delete Key**.



Animation Status Pop-Up Menu

If the **Animation Status** button is labeled **S**, for static, then all choices in the pop-up menu, except **Animated**, are ghosted out.

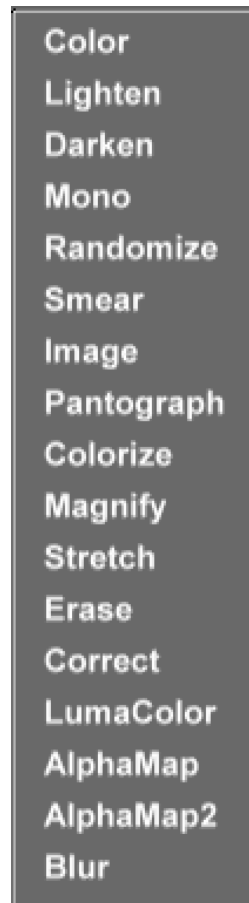
- Choosing **Animated** changes the button's label to **A**, for animated, and animates the object. Clicking on this button again brings up the pop-up menu with all of the choices active.
- Choosing **Add Key** adds a key at the point selected on the timeline.
- Choosing **Next Key** skips to the next key set on the timeline.
- Choosing **Previous Key** skips to the previous key on the timeline.
- Choosing **Delete Key** deletes the selected key.

Shadow
Enable

Adds a shadow to the selected object. A typical shadow uses the darken ink, but cool effects can be created using other styles of ink for the shadow.

Ink

Selects an ink for the shadow. Clicking on this button brings up a pop-up (following figure) from which you can choose an ink style. The choices are: **Color**, **Lighten**, **Darken**, **Mono**, **Randomize**, **Smear**, **Image**, **Pantograph**, **Colorize**, **Magnify**, **Stretch**, **Erase**, **Correct**, **LumaColor**, **AlphaMap**, **AlphaMap2**, and **Blur** (see “Panamation Inks” on page 77 for more information about these inks). The face of the button displays the selected ink for the shadow.



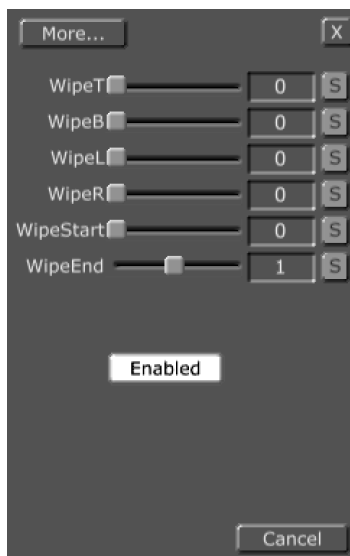
The Ink Pop-Up Menu

- Ink Settings** Clicking this button brings up a properties panel, from which you can adjust the properties of an ink. Not all Panamation inks have properties panels. If a selected ink does not have one, the **Ink Settings** button is grayed out.
- Cancel** Cancels any changes made in this panel and closes it.

Wipes Properties Panel

Use the **Wipes Properties** panel (following figure) to create a wipe transition that can be loaded into Air Command or Predator. With this panel, you can customize how your wipe transitions when it loaded as an effect. This panel can also be used to wipe a stroke on or off. Properties that can be customized include the direction of the wipe and where it starts and ends.

Bring up the **Wipes Properties** panel by clicking the **Stroke** button in the **Stroke Controls**, clicking the **More** button in the upper left corner of the **Stroke Properties** panel, and choosing **Wipes** from the pop-up menu.



The Wipe Properties Panel

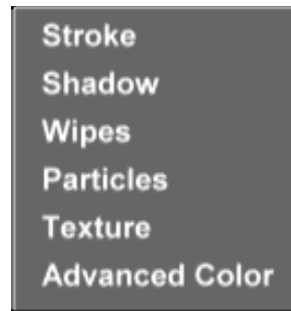
Wiping an object makes the object disappear from the screen, starting from any given direction. Wiping a text stroke makes the letters disappear from the screen, starting from any given direction. If you are creating an actual wipe

effect, the wipe values in layer 1 of any project are used to transition between Program and Preview video. The object represents Preview video, and the area underneath it represents Program video.

NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. The values can also be changed by clicking-and-dragging the value's slider left or right.

Following is a list of the functions of the **Wipe Properties** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse this chapter for more information on these panels.



The More... Pop-Up Menu

WipeT	Makes the object disappear starting at the top of the object.
WipeB	Makes the object disappear starting at the bottom of the object.
WipeL	Makes the object disappear starting at the left side of the object.
WipeR	Makes the object disappear starting at the right side of the object.

WipeStart

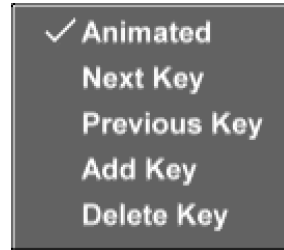
This function only works with strokes that were created with the Spray tool. With a spray stroke, adjusting the WipeStart slider to the right causes the stroke to disappear starting at the beginning of the object and follows the object to the end of the stroke. By animating the WipeStart value, you can make it appear as if a stroke is being drawn over time.

WipeEnd

This function only works with strokes that were created with the Spray tool. With a spray stroke, adjusting the WipeEnd slider to the right causes the stroke to disappear starting at the ending of the object and follows the object to the beginning of the stroke. By animating the WipeEnd value, you can make it appear as if a stroke is being drawn or erased over time.

S/A
(Animation
Status)

Brings up a pop-up menu from which you can animate a property of an object, such as position and transparency. The animation status pop-up menu offers these choices: **Animated**, **Next Key**, **Previous Key**, **Add Key**, and **Delete Key**.



Animation Status Pop-Up Menu

If the **Animation Status** button is labeled **S**, for static, then all choices in the pop-up menu, except **Animated**, are ghosted out.

- Choosing **Animated** changes the button's label to **A**, for animated, and animates the object. Clicking on this button again brings up the pop-up menu with all of the choices active.
- Choosing **Add Key** adds a key at the point selected on the timeline.
- Choosing **Next Key** skips to the next key set on the timeline.
- Choosing **Previous Key** skips to the previous key on the timeline.
- Choosing **Delete Key** deletes the selected key.

Enabled

Turns the wipe on.

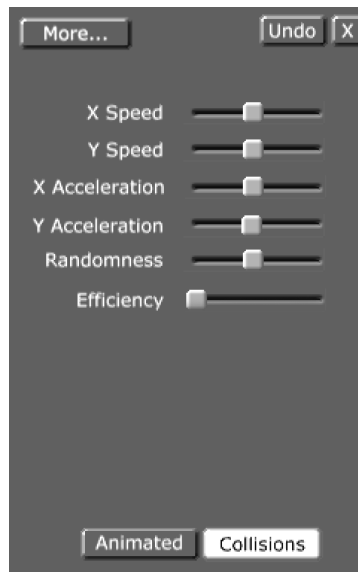
Cancel

Cancels any changes made in this panel and closes it.

Particles Properties Panel

Use the **Particles Properties** panel (following figure) to control and animate the particles of an object created using the spray tool. It can also be used to animate the letters in a text stroke. Any object created using the spray or text tools is made up of small individual parts, called particles. Normally, these particles are stationary, but they can have movement added to them using the values in this panel.

Bring up the **Particles Properties** panel by clicking the **More** button at the top of the **Stroke Properties** panel and choosing **Particles** from the pop-up menu. The panel appears in place of the **Stroke Properties** panel.



The Particles Properties Panel

NOTE Values in this panel are changed by clicking-and-dragging the value's slider left or right.

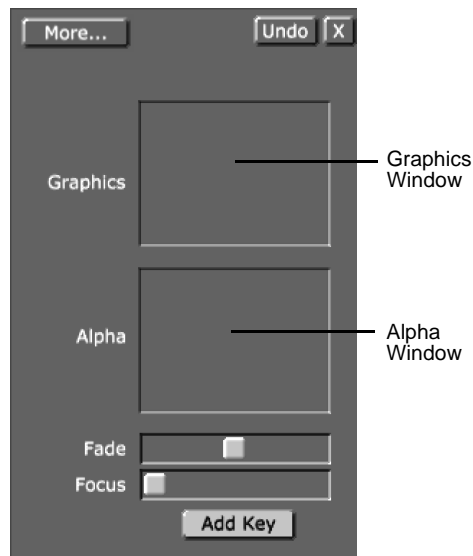
The following list explains how to use the **Particles Properties** panel:

More...	Allows you to access other properties panels. Clicking this button brings up a pop-up menu with the options to bring up these panels: Stroke , Shadow , Wipes , Particles , or Texture . Browse through this chapter for more information on these panels.
Undo	Undoes the last modification performed.
X Speed	Controls the horizontal movement speed of the particles. A negative value indicates movement to the left, while positive values indicate movement to the right.
Y Speed	Controls the vertical movement speed of the particles. A negative value indicates movement down, while positive values indicate movement up.
X Acceleration	Controls how quickly the object accelerates horizontally. An acceleration value of zero means that the particles travel at a constant speed.
Y Acceleration	Controls the vertical acceleration. In essence, this value acts like gravity for the particles. An acceleration value of zero means that the particles travel at a constant speed.
Randomness	Randomizes the movement speed of the particles. You may not want all particles to have the same initial velocity. A value of zero in each of these sliders indicates that all particles have the same velocity. Increasing the numbers increases the degree of random speeds.
Efficiency	Sets how much velocity is absorbed by collisions. This is a percentage value. A value of 0 means that a particle stops upon impact. Set Efficiency to 50 to get a nice “bounce” to the particles when they collide with the border.
Animated	Enables particle animation for the stroke. If this is not selected, none of the values in the Particles Properties panel can be adjusted.
Collisions	Creates borders around the edges of the workspace that the particles bounce off when they reach the edge of the workspace.

Texture Properties Panel

Use the **Texture Properties** panel to control any type of texture mapping on the object. Remember how we said that all objects in Panamation are created equal? Panamation treats Still image files and AVI files as brush strokes with a “skin” texture mapped onto the surface of the object. By using the Stretch ink setting in the **Stroke Properties** panel, the graphic or AVI information is stretched to fit the size of the object.

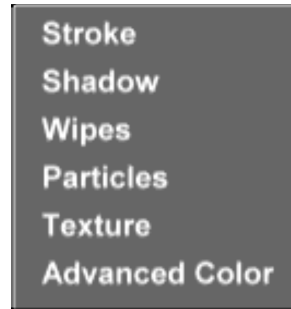
Bring up the **Texture Properties** panel by clicking the **More** button at the top of the **Stroke Properties** panel and choosing **Texture** from the pop-up menu. The panel appears in place of the **Stroke Properties** panel.



The Texture Properties Panel

Following is a list that explains the functions of the **Texture Properties** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse through this chapter for more information on these panels.



The More Pop-Up Menu

Undo	Undoes the last modification performed.
Graphics Window	Defines which graphic is used as the stretch ink for the object or brush. To add a graphic, ClipMem, Time Machine Clip, or AVI file, drag-and-drop one into the window. Right-clicking the window brings up a pop-up menu from which you can define the frame rate of a clip (see “Frame Rate Adjustment Pop-Up Menu” on page 129 for more information about this pop-up menu).
Alpha Window	Embeds the luminance information from the graphic onto the stroke when you drag-and-drop a graphic here. This enables you to use a graphic as a matte or alpha map.

Fade Slider

Adjusts the amount of transparency, or alpha, applied to an object. For the Fade slider to work, a graphic must be loaded into the Alpha window. Adjust the fade by clicking-and-dragging the slider left or right.

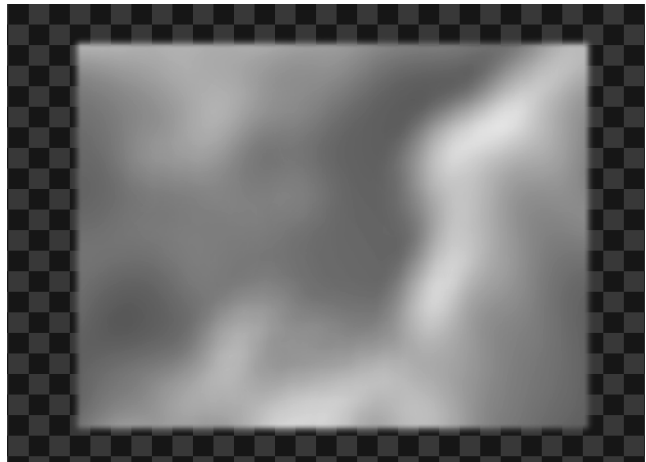
The following figure illustrates **Fade** applied to a graphic of a cloud.



Cloud Graphic with Fade Applied

Focus Slider Blurs the graphics applied to an object. Adjust the focus by clicking-and-dragging the slider left or right. The further the slider is dragged to the right, the more out of focus the object is.

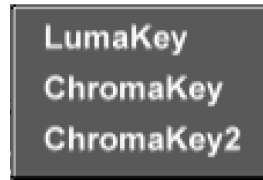
The following figure illustrates **Focus** applied to a graphic of a cloud.



Cloud Graphic with Focus Applied

Add Key

Brings up a pop-up menu (following figure) from which you can choose to bring up the **LumaKey**, **ChromaKey**, or **ChromaKey2** panels (see “LumaKey Panel” on page 131, “ChromaKey Panel” on page 137, and “ChromaKey2 Panel” on page 141 for more information about these panels).

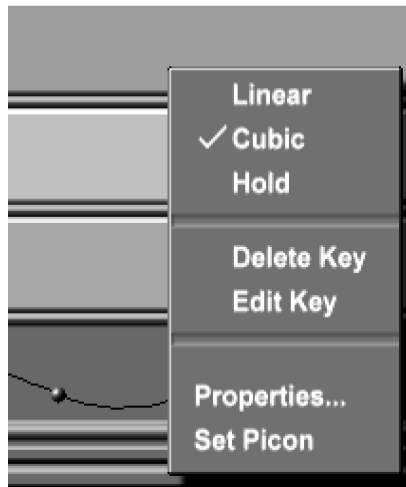


The Add Key Pop-Up Menu

Frame Rate Adjustment Pop-Up Menu

From the Frame Rate Adjustment pop-up menu (following figure) you can define the frame rate of an imported AVI file, ClipMem, or Time Machine clip. From this panel, you can also adjust the interlacing properties for the file.

Bring up the Frame Rate Adjustment pop-up menu by clicking the **More** button in the **Stroke Properties** panel, choosing **Texture** from the pop-up menu, and right-clicking in either the **Graphics** or **Alpha** box.



The Frame Rate Adjustment Pop-Up Menu

Following is a list that explains the **Frame Rate Adjustment** pop-up menu's choices:

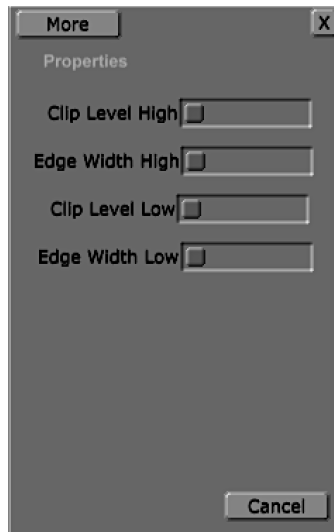
Interlace	Treats the selected AVI file, ClipMem, or Time Machine clip as though it were interlaced. Interlacing is a method of scanning alternate lines of pixels on a display screen. The odd lines are scanned first from top to bottom and left to right. The electron gun goes back to the top and makes a second pass scanning the even lines. Interlacing requires two scan passes to construct a single image.
Field Reverse	Reverses the order that the alternate lines of pixels on a display screen are scanned, scanning the even lines first and then the odd.
Alpha Pre Mix	Used with 32-bit images that have alpha pre-mixed with the graphics. If you load a file of this type, you see dark pixels around the edge of the image. Turning on the Alpha Pre Mix causes the image to display correctly.
File Sequence	Used with an animation file that is made up of a sequence of individual pictures. To use this type of file, drag-and-drop the first still from the sequence into the workspace, bring up the Texture Properties panel for it by right-clicking on the More button in the Stroke Properties panel and choosing Texture from the pop-up menu, right-click on the still in the Graphics window, and choose File Sequence from the pop-up menu. For this series of stills to play back at the proper rate, the field playback rate for the file should be set at 60.
Delete	Deletes the file from the selected window.
0, 1, 2, 3, etc.	Choosing one of these values sets the field playback rate of the AVI file at that value. By changing this value, you can determine the speed the AVI file plays at.

LumaKey Panel

Use the LumaKey panel (following figure) to adjust the luminance values of a key for a stroke. A key is an electronic matte that places a second image, such as video footage, under part of a primary image. By adjusting the luminance values of a key, the luminance values of an object are replaced by the second image.

To complete a tutorial that uses the LumaKey panel to key colors out of a still, see “Using The LumaKey Panel” on page 259.

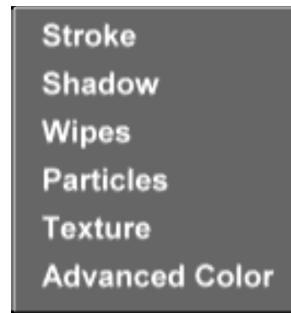
Bring up the LumaKey panel by clicking the **More** button in the **Stroke Properties** panel, choosing **Texture** from the pop-up menu, clicking the **Add Key** button at the bottom of the **Texture Properties** panel, and choosing **LumaKey** from the pop-up menu.



The LumaKey Panel

The following list details the functions of the **LumaKey** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse through this chapter for more information on these panels.

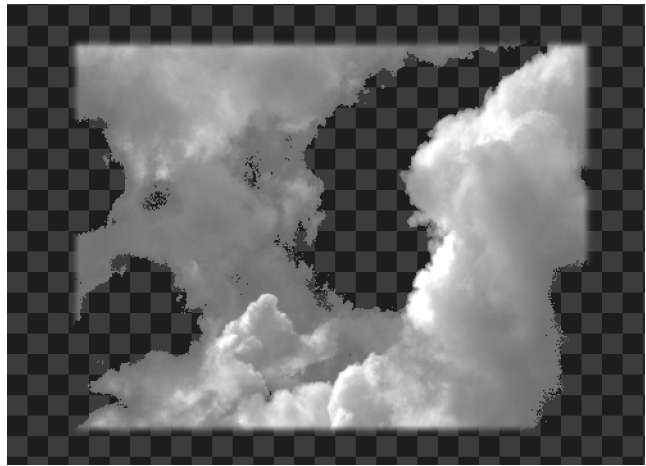


The More... Pop-Up Menu

Clip Level High

Keys out the darkest parts of the object, leaving the brightest parts. Dragging the slider to the right increases the sensitivity of the keyer, causing more and more of the image to be keyed out. If the slider is moved all the way to the right, the entire image is keyed out.

The following figure illustrates a **Clip Level High** value applied to a graphic of a cloud.



Clip Level High Value Applied to Cloud Graphic

Edge Width High

Works in conjunction with the **Clip Level High** slider to adjust the softness of the edge of the key. Before using this slider, always set the **Clip Level High** slider.

The following figure illustrates a **Edge Width High** value applied to a graphic of a cloud.

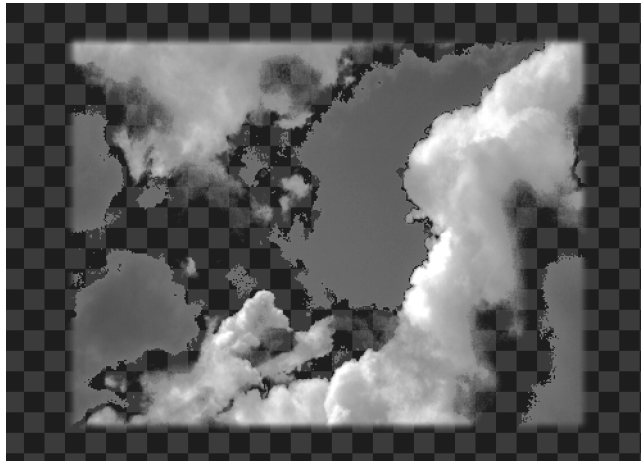


Edge Width High Value Applied to Cloud Graphic

Clip Level Low

Works in conjunction with the **Clip Level High** slider to perform a low level luma key. Before using this slider, always set the **Clip Level High** slider.

The following figure illustrates a **Clip Level Low** value applied to a graphic of a cloud.



Clip Level Low Value Applied to Cloud Graphic

**Edge Width
Low**

Adjusts the softness of the edge of the key. Use this to clean up the edges of a low level luma key.

The following figure illustrates a **Edge Width Low** value applied to a graphic of a cloud.



Edge Width Low Value Applied to Cloud Graphic

Cancel

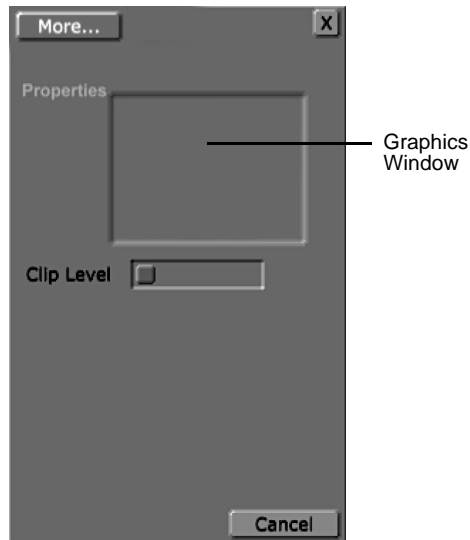
Cancels any changes made in this panel and closes it.

ChromaKey Panel

Use the **ChromaKey** panel (following figure) to adjust the clip level of a key for a stroke based on the chrominance values for that key. A key is an electronic matte that places a second image, such as video footage, under part of a primary image. By adjusting the chrominance values of a key, the chrominance values of an object are replaced by the second image.

To complete a tutorial that uses the **ChromaKey** panel to key colors out of a still, see “Using The ChromaKey Panel” on page 268.

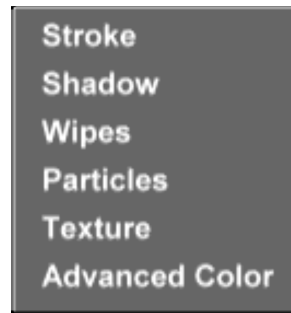
Bring up the **ChromaKey** panel by clicking the **More** button in the **Stroke Properties** panel, choosing **Texture** from the pop-up menu, clicking the **Add Key** button at the bottom of the **Texture Properties** panel, and choosing **ChromaKey** from the pop-up menu.



The ChromaKey Panel

The following list details the functions of the **ChromaKey** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse through in this chapter for more information on these panels.

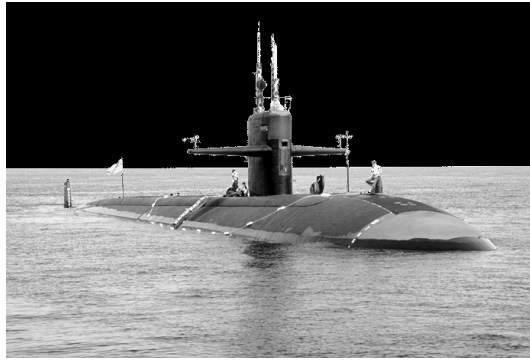


The More Pop-Up Menu

Graphics Window

The Graphics window contains the graphic applied to the selected stroke. To key out a color from this graphic, click on that color in the Graphics Window.

The following figure illustrates a graphic in the workspace that had a color keyed out by selecting a color from the Graphics window.

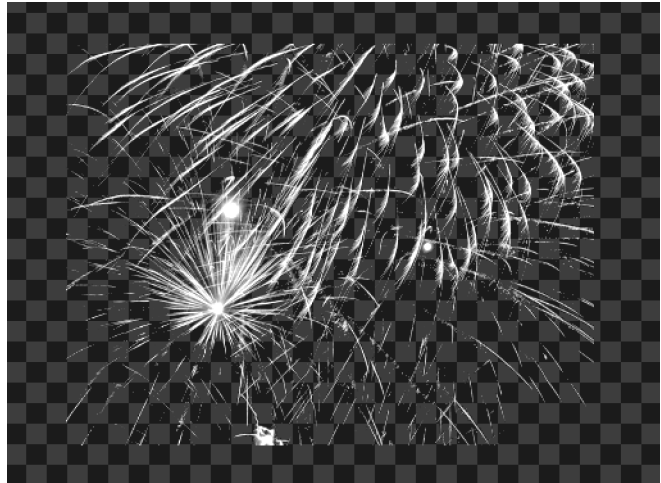


Graphic with Color Keyed Out

Clip Level

To use this function, first click on a color in the image in the Graphics window. This chooses which color is keyed out of the image. Adjusting the Clip Level adjusts the range of the color that is keyed out.

The following figure illustrates a **Clip Level** value applied to a graphic of fireworks.



Clip Level Value Applied to Fireworks Graphic

Cancel

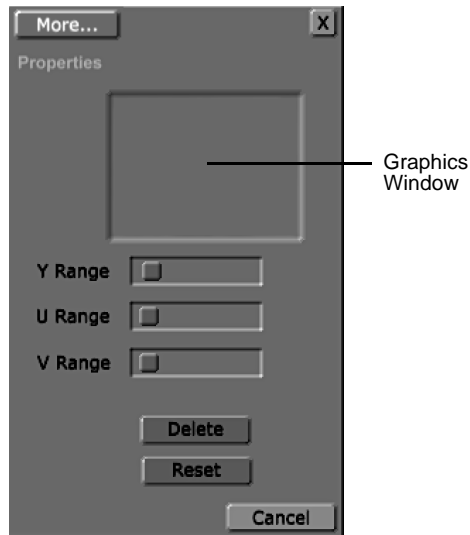
Cancels any changes made in this panel and closes it.

ChromaKey2 Panel

Use the **ChromaKey2** panel (following figure) to adjust the luminance and chrominance values for the key of a stroke. A key is an electronic matte that places a second image, such as video footage, under part of a primary image. By adjusting the luminance and chrominance values of a key, the luminance and chrominance values of an object are replaced by the second image.

To complete a tutorial that uses the **ChromaKey2** panel to key colors out of a still, see “Using The ChromaKey2 Panel” on page 276.

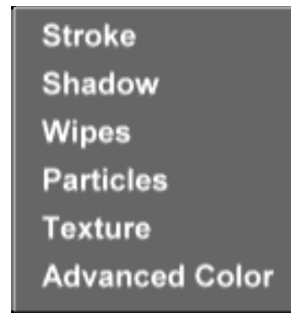
Bring up the **ChromaKey2** panel by clicking the **More** button in the **Stroke Properties** panel, choosing **Texture** from the pop-up menu, clicking the **Add Key** button at the bottom of the **Texture Properties** panel, and choosing **ChromaKey2** from the pop-up menu.



The ChromaKey 2 Panel

The following list details the functions of the **ChromaKey** panel:

More... Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse through this chapter for more information on these panels.

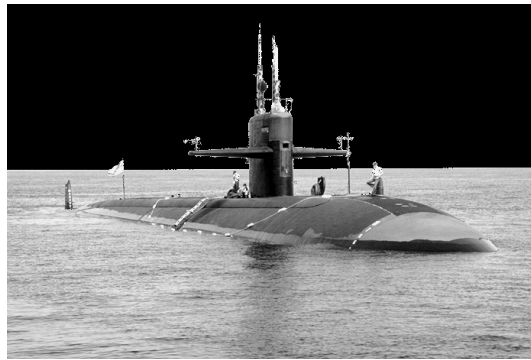


The More Pop-Up Menu

Graphics Window

The Graphics Window contains the graphic applied to the selected stroke. To key out a color from this graphic, click on that color in the Graphics window. Multiple colors can be keyed out this way.

The following figure illustrates a graphic in the workspace that had a color keyed out by selecting a color from the Graphics window.



Graphic with Color Keyed Out

Y Range

Adjusts the luminance value of the chroma key. Before this value can be adjusted, a color must be selected in the graphic in the Graphics window.

U Range

Adjusts the chrominance value for the chroma key. Both the U and V values make up the chrominance value. Before this value can be adjusted, a color must be selected in the graphic in the Graphics window.

V Range

Adjusts the chrominance value for the chroma key. Both the U and V values make up the chrominance value. Before this value can be adjusted, a color must be selected in the graphic in the Graphics window.

Delete

Deletes the part of the picture indicated by the keyer settings.

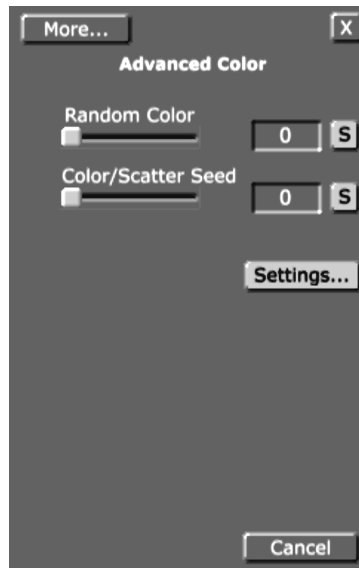
- | | |
|---------------|--|
| Reset | Restores the YUV settings to the levels they were when the panel was first opened. |
| Cancel | Cancels any changes made in this panel and closes it. |

Advanced Color Panel

Use the **Advanced Color** panel (following figure) to randomize the colors of a stroke. If the stroke is made of particles, such as a spray stroke, then each particle has a different color. If the stroke is made up of a solid object, then the stroke is filled with a single random color.

Bring up the **Advanced** panel by clicking the **More** button at the top of the **Stroke Properties** panel and choosing **Advanced Color** from the pop-up menu. The panel appears in place of the **Stroke Properties** panel.

NOTE This panel can only be brought up for a stroke that has a color ink applied to it.

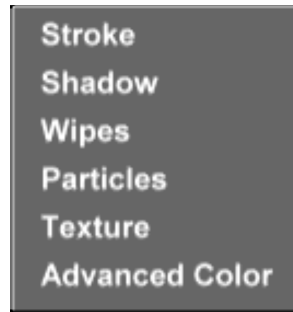


The Advanced Color Panel

NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. The values can also be changed by clicking-and-dragging the value's slider left or right.

The following list explains how to use the **Advanced Color** panel:

- More...** Allows you to access other properties panels. Clicking this button brings up a pop-up menu (following figure) with the options to bring up these panels: **Stroke**, **Shadow**, **Wipes**, **Particles**, **Texture**, or **Advanced Color**. Browse this chapter for more information on these panels.

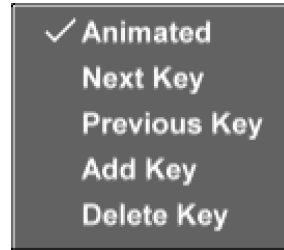


The More... Pop-Up Menu

- X** Closes the panel

S/A
(Animation
Status)

Brings up a pop-up menu from which you can animate a property of an object, such as position and transparency. The animation status pop-up menu offers these choices: **Animated**, **Next Key**, **Previous Key**, **Add Key**, and **Delete Key**.



Animation Status Pop-Up Menu

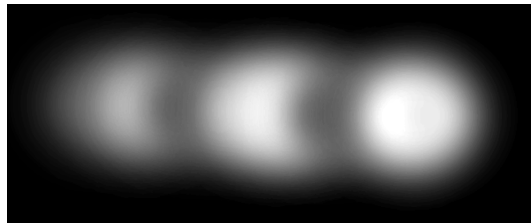
If the **Animation Status** button is labeled **S**, for static, then all choices in the pop-up menu, except **Animated**, are ghosted out.

- Choosing **Animated** changes the button's label to **A**, for animated, and animates the object. Clicking on this button again brings up the pop-up menu with all of the choices active.
- Choosing **Add Key** adds a key at the point selected on the timeline.
- Choosing **Next Key** skips to the next key set on the timeline.
- Choosing **Previous Key** skips to the previous key on the timeline.
- Choosing **Delete Key** deletes the selected key.

Random Color

Random colors are added to each particle of the stroke when changing this value for a spray stroke, which is made up of particles. The higher the value, the larger the variation is from the original color. Also, if the particles of a stroke are scattered, this function changes the pattern of the particles.

The following figure illustrates a spray stroke with the Random Color value set at 768.



Spray Stroke with Random Color Set at 768

When changing this value for a solid stroke, the color applied to the stroke is darkened. The higher the value, the darker the color is. Change this color by adjusting the Color/Scatter Seed value.

The following figure illustrates a solid stroke with the Random Color value set at 768.



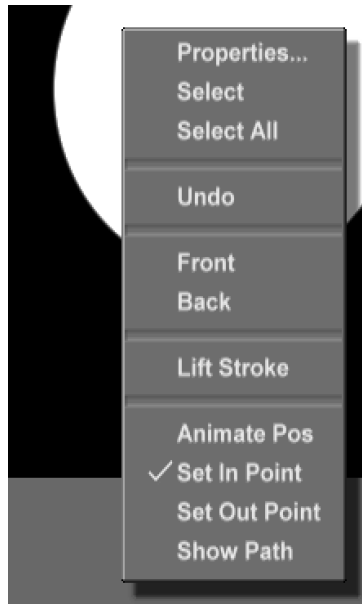
Solid Stroke with Random Color Set at 768

Color/Scatter Seed	Used with the Random Color function. Changing this value randomly changes the color of the stroke. When changing this value for a spray stroke, the color of each particle changes randomly. When changing this value for a solid stroke, it changes the single color randomly. Panamation performs this function by changing the starting position of the random number generator. That means that if you draw two strokes, the particles of both strokes go through the same sequence of random colors, and the colors of the particles will be identical. By setting each stroke to a different seed, each stroke goes through its own unique sequence of colors.
Settings	Brings up the Color Palette and Gradient Editor panel for the selected stroke (see “Color Palette And Gradient Editor Panel” on page 99 for more information about this panel).
Cancel	Cancels any changes made in this panel and closes it.

Object Pop-Up Menu

The Object pop-up menu gives options to adjust the animation and placement of an object, as well as a choice to bring up the properties panel for that object. For example, you can change the objects' placement in the workspace by sending it to the back, or bringing it to the front.

The Object pop-up menu (following figure) can be brought up for any object in the workspace. Simply right-click on the object.

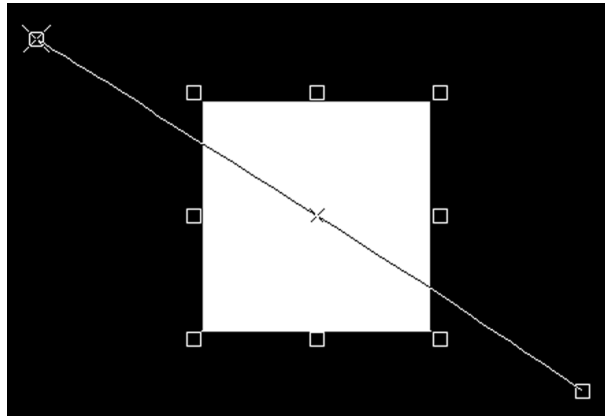


The Object Pop-Up Menu

The following list explains the pop-up menu's choices:

Properties	Brings up a properties panel for that brush stroke.
Select	Selects the object. A check mark indicates that object is currently selected.
Select All	Selects all brush strokes in the workspace.
Undo	Removes the selected brush stroke from the workspace.
Front	Moves the object to the front of the layer.

Back	Moves the object to the back of the layer.
Lift Stroke	Gives the brush stroke the same look as the area underneath it. Useful for extracting elements of a still. NOTE: The Lift Stroke function only works on the currently selected layer.
Animate Pos	Turns on the animate function for position for all selected strokes. Each object that you wish to animate must have this option selected.
Set In Point, Set Out Point	Used for trimming the length of the stroke on the timeline. When a brush stroke is created, it usually lasts from the point it was created to the end of the timeline. By changing the in and out point, you can control when the object appears and when it disappears.
Show Path	Shows the animation path of the selected stroke (following figure). This path can be edited by clicking the Edit button in the Stroke Controls and then clicking-and-dragging the edit points on the path.



The Animation Path of the Selected Stroke

Select Properties To Copy Panel

Use the **Select Properties to Copy** panel (following figure) to customize how an object is copied. Do you want to copy just the color and ink of an object, and not its shadow? This is simple with the **Select Properties to Copy** panel.

This menu is brought up when you select an object and push **Ctrl+c** on your keyboard to copy an object. After you've made your copy choices, click the **OK** button. When you push **Ctrl+v** to paste the object, the new object has only the properties you selected.

This menu is also brought up when you drop an object into the workspace and choose **Replace Properties** from the menu. The object dropped into the workspace this way will only retain the properties you select in the panel.



The Select Properties to Copy Menu

The following list explains how to use the **Select Properties to Copy** menu:

<p>Properties Buttons</p>	<p>Clicking in the box next to a property selects that property to be copied.</p>
----------------------------------	---

Select All	Selects all properties to be copied.
Path Mode	No current function.
OK	Click OK when you have made the necessary selections in this menu.
Select None	Deselects all of the properties.
Save	Saves the properties set in this menu so that the next time you copy an object, the settings are retained.
Cancel	Cancels any changes made in this panel and closes it.

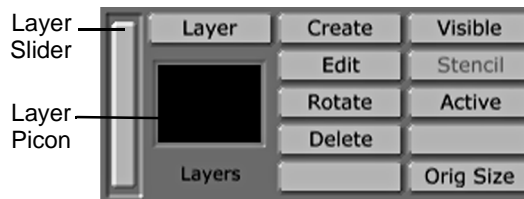
Working With Layers

Layers are used in Panamation to separate objects. By placing objects on different layers, you can easily select and manipulate the desired object. A good example of this is a reusable animated overlay for basketball scores. The elements of the background are stored on one layer, while the scores themselves are on another layer. This ensures the background objects won't be accidentally moved around.

The first layer of the workspace has some special properties that the other layers do not have. The first layer has an opaque background, unless the Alpha is turned on. Other layers always have Alpha turned on, which means that the layer is transparent, except for the objects.

Layer Controls

Use Panamation's Layer Controls (following figure) to rotate and scale lots of objects together in three dimensions. This allows quick and easy perspective scaling of an entire scene.



The Layer Controls

The following list explains the functions of the Layer Controls:

- Layer Picon** A picon-size picture of the selected layer. Right-clicking on this picon brings up the **Layer Properties** panel.
- Layer Slider** Lets you choose which layer is active. The title below the Current Layer picon tells you which layer is active. When you are clicking-and-dragging the slider, only the objects on the selected layer are displayed in workspace.
- Layer** Brings up the **Layer Properties** panel.

- Create** Adds a new layer to the workspace. The first layer is labeled Layer 1 and subsequent layers are numbered accordingly. If an object is selected when the **Create** button is pushed, that object is removed from its original layer and placed on the newly created layer.
- Edit** Changes the size of the layer. Clicking on a layer and dragging the mouse up or down resizes the height of the layer. Dragging the mouse right or left resizes the width of the layer.
- Rotate** Rotates each layer in three dimensions. Dragging the left mouse button rotates the layer on the x- and y-axis. Holding down the shift button and dragging the mouse allows z axis rotation.

The following figure illustrates a layer that was rotated.



A Rotated Layer

- Delete** Deletes the active layer.

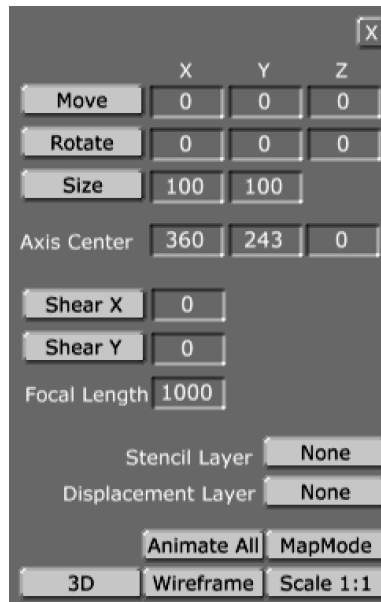
Visible	Makes the selected layer visible or invisible. This is very useful when you are working with several layers and you need to turn off a middle layer to see how objects interact between the top and bottom layers.
Stencil	<p>Only works on layers that have an alpha channel. To use this function for the first layer of a project, the Alpha button must first be selected in the Workspace Properties panel. Additional layers that are created in Panamation automatically have their alpha turned on. Turning Stencil on gives new brush strokes the stencil property. If the stencil property is turned on, the stroke only shows up if it overlaps an object in the same layer. This is useful if you want to paint on top of another object, but don't want to worry about "staying in the lines." The Stencil property can be turned on for any existing object by bringing up the object's properties panel and turning the Stencil button on in the panel.</p> <p>To complete a tutorial that uses the stencil function to create and alpha map, see "Using The Stencil Function To Create A Mask" on page 285.</p>
Forward	Use the Forward button to change the order of the layers to place layers in front another layer,
Backward	Use the Backward button to change the order of the layers to place layers behind another layer,
Transparent/ Active/All	<p>Brings up a pop-up menu with choices that affect how layers are displayed in the workspace. These choices are: Transparent, Active, and All.</p> <ul style="list-style-type: none">• If Transparent is selected, the current layer is shown at full opacity, and other layers show up as faint outlines of objects.• If Active is selected, only the active layer is shown.• If All is selected, all layers are shown.

Orig (Original) Size	Returns the selected layer to its original size, undoing any rotation, scaling, etc. you may have done to it.
Blank Buttons	No current function.

Layer Properties Panel

Use the **Layer Properties** panel (following figure) to move, rotate, and size layers. Clicking on the buttons allows you to move, rotate, and size the active layer in the workspace. These values can also be animated by right-clicking on the numeric displays and choosing **Animate** from the pop-up menu. Each individual value is animated separately. Animation of the layers is done using sub-pixel positioning. You may want to use the animation and rotation functions of this panel to make it appear as if your layer is spinning into the workspace.

Bring up this panel by clicking on the **Layer** button in the Layer Controls, or by right-clicking on the **Layer** picon and selecting **Properties** from the pop-up menu.



The Layer Properties Panel

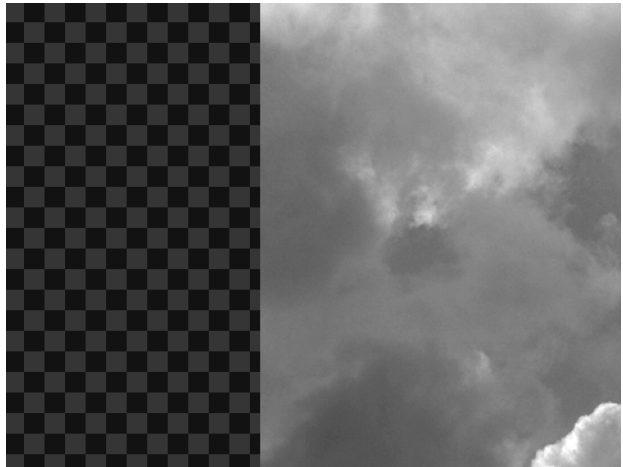
NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. Animate these values by right-clicking on the numeric displays, choosing **Animate On** from the pop-up menu, right-clicking on the value again, and choosing **Add Key** from the pop-up menu.

Following is a list of the **Layer Property** panel's buttons and functions:

Move

Moves an active layer or changes its size in the workspace. Changing the **X** value moves the layer left or right in the workspace. Changing the **Y** value moves the layer up or down in the workspace. Changing the **Z** value reduces or enlarges the layer's size.

The following figure illustrates a layer that was moved using the Move function. The **X** position of this figure has a value of 200.



A Layer that was Moved with an X Value of 200

Rotate

Rotates an active layer in the workspace. The numeric values represent a number in degrees. For example, typing in a value of 90 rotates an object 90 degrees. Changing the X value rotates the layer three-dimensionally along the X axis. Changing the Y value rotates the layer three-dimensionally along the Y axis. Changing the Z value rotates the layer clockwise or counter-clockwise.

The following figure illustrates a layer that was rotated using this function.



A Layer Rotated with an X Value of 45

Size

Resizes an active layer in the workspace. The numeric values represent a percentage. Changing the X value affects the width of the layer. Changing the Y value affects the height of the layer.

The following figure illustrates a layer that has an X size value of 60.



A Layer with an X Size Value of 60

Axis Center These values show the location of the center point that the rotate function works on. The default values indicate the center of the layer. When you set the values to 0, the layer rotates around the lower left corner.

The following figure illustrates a layer that was rotated with its X axis center set at 180.

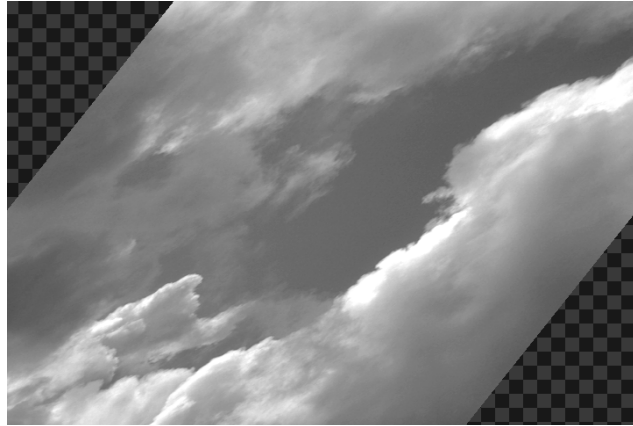


A Rotated Layer with an X Axis Center Set at 180

Shear X

Changing this value skews the layer left and right.

The following figure illustrates a layer with a Shear X value of 80.

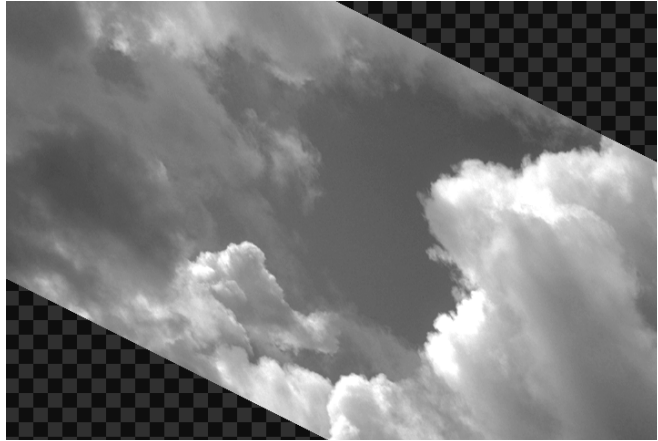


A Layer with a Shear X Value of 80

Shear Y

Changing this value skews the layer up and down.

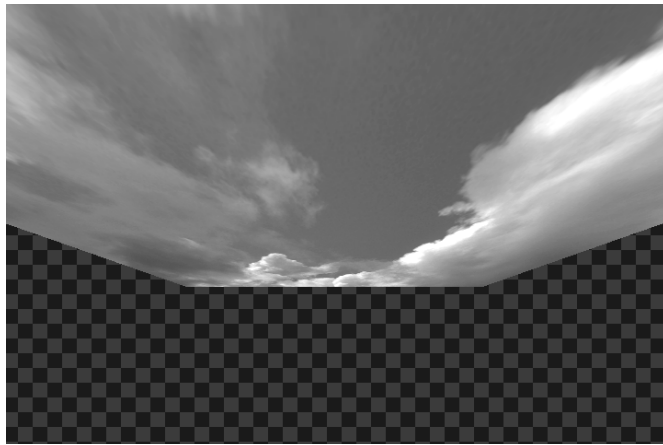
The following figure illustrates a layer with a Shear Y value of 50.



A Layer with a Shear Y Value of 50

Focal Length Represents the distance between the viewer's eye and the projection plane. This numerical value shows how close the layer appears when the layer is rotated. A higher number means the layer appears longer as it is rotated. If you want a wide-angle lens effect, use a smaller number.

The following figure illustrates a layer that was rotated with a Focal Length value of 150.



A Layer Rotated with a Focal Length Value of 150

Stencil Layer Sets a layer to act as a stencil. If there are several layers on your workspace, clicking the **Stencil Layer** button brings up a pop-up menu from which you can choose which layer you want to use as the stencil layer.

NOTE: A layer must have an alpha channel to be used as a stencil layer. With the exception of the first layer, all layers automatically have an alpha channel. To use the first layer of a project as a stencil layer, **Alpha** must be turned on in the **Workspace Properties** panel.

To complete a tutorial that uses the Stencil function to create an alpha map, see “Using The Stencil Function To Create A Mask” on page 285.

Displacement Layer Enables a displacement layer. This allows you to use the opacity of one layer to displace objects and graphics on another layer. With this function, objects can be created that appear as if they are being pulled up from a graphic.

3D When this button is turned off, it makes the rotation and sizing invisible. The rotation and sizing values are still there, however. This is a handy way to paint additional objects on a layer after the layer has been rotated and sized.

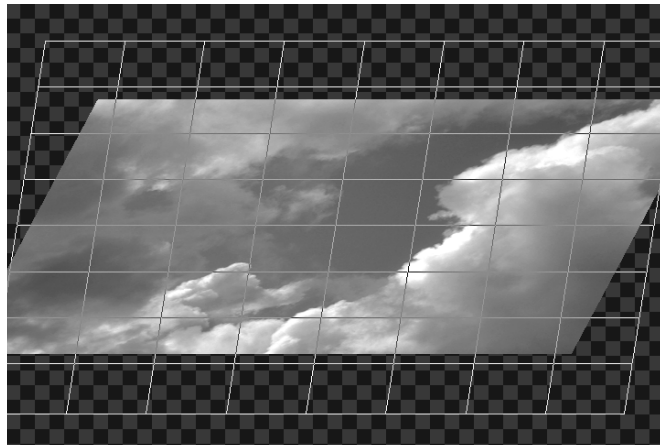
Animate All Turns on the animation for every layer property, such as size, position, and rotation. To animate an individual property, right-click on that property in the **Layer Properties** panel and choose **Animate On** from the pop-up menu.

Wireframe

Changes the workspace to show only the wireframe of the selected layer. The wireframe effect only occurs as a layer is moved or rotated.

The following figure illustrates a layer that was rotated with the WireFrame function turned on.

TIP: The Wireframe function makes it easier to rotate layers on a slow host PC.



A Layer Rotated with the WireFrame Function On

MapMode

Brings up the **MapMode** panel in place of the **Layer Properties** panel.

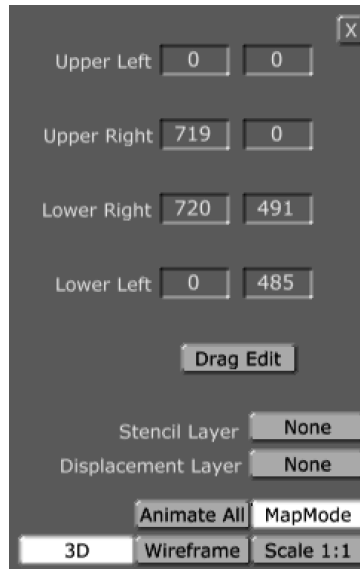
Scale 1:1

Snaps the layer back to full-screen size, rotation, and position. This does not bring the values of Scale, Move and Rotate back to 0. Instead, the value jumps to the nearest 1:1 value, such as 360 or -360 or 0. This allows you to spin a layer in and use the 1:1 button to frame it properly at the end, without worrying about the animation “unwinding” at the end.

MapMode Panel

Use the MapMode panel (following figure) to skew or distort a selected layer, giving a layer a three-dimensional look.

To bring up the **Map Mode** panel, first bring up the **Layer Properties** panel by clicking the **Layer** button in the Layer Controls. Then, click the **MapMode** button.



The Map Mode Panel

NOTE Numeric values in this panel are changed by typing in a new value or by clicking-and-dragging up or down in the box for the value. Animate these values by right-clicking on the numeric displays, choosing **Animate On** from the pop-up menu, right-clicking on the value again, and choosing **Add Key** from the pop-up menu.

Following is a list that details the functions of the **MapMode** panel:

Upper Left Changing these values adjusts the position of the upper left corner of the selected layer. The first number affects the X (horizontal) position of the corner. The second number affects the Y (vertical) position of the corner.

The following figure illustrates a layer with its Upper Left values adjusted. In this figure, the X position value is 45 and the Y position value is 45.



A Layer with its Upper Left Values Adjusted

Upper Right

Changing these values adjusts the position of the upper right corner of the selected layer. The first number affects X position of the corner. The second number affects the Y position of the corner.

The following figure illustrates a layer with its Upper Right values adjusted. In this figure, the X position value is 600 and the Y position value is 45.



A Layer with its Upper Right Values Adjusted

Lower Right

Changing these values adjusts the position of the lower right corner of the selected layer. The first number affects X position of the corner. The second number affects the Y position of the corner.

The following figure illustrates a layer with its Lower Right values adjusted. In this figure, the X position value is 600 and the Y position value is 400.



A Layer with its Lower Right Values Adjusted

Lower Left

Changing these values adjusts the position of the lower left corner of the selected layer. The first number affects X position of the corner. The second number affects the Y position of the corner.

The following figure illustrates a layer with its Lower Left values adjusted. In this figure, the X position value is 45 and the Y position value is 400.



A Layer with its Lower Left Values Adjusted

Drag Edit

With this button selected, you can click-and-drag the four corners of a layer in the workspace. Dragging the corners bends and twists the object.

The following figure illustrates a layer with its Upper Left values adjusted. In this figure, the X position value is 45 and the Y position value is 45.

Stencil Layer Sets a layer to act as a stencil. If there are several layers on your workspace, clicking the **Stencil Layer** button brings up a pop-up menu from which you can choose which layer you want to use as the stencil layer.

NOTE: A layer must have an alpha channel to be used as a stencil layer. With the exception of the first layer, all layers automatically have an alpha channel. To use the first layer of a project as a stencil layer, **Alpha** must be turned on in the **Workspace Properties** panel.

To complete a tutorial that uses the Stencil function to create an alpha map, see “Using The Stencil Function To Create A Mask” on page 285

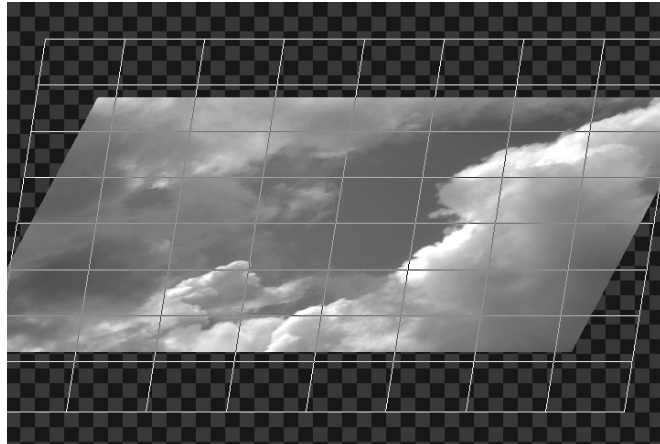
Displacement Layer Enables a displacement layer. This allows you to use the opacity of one layer to displace objects and graphics on another layer. With this function, objects can be created that appear as if they being pulled up from a graphic.

3D When this button is turned off, it makes the rotation and sizing invisible. The rotation and sizing values are still there, however. This is a handy way to paint additional objects on a layer after the layer has been rotated and sized.

Animate All Sets keyframes for layers. After moving a layer around on the workspace, clicking this button animates the movement.

Wireframe Changes the workspace to show only the wireframe of the selected layer.

The following figure illustrates a layer that was rotated with the WireFrame function turned on.



A Layer Rotated with the WireFrame Function On

MapMode Brings up the **MapMode** panel in place of the Layer Properties panel.

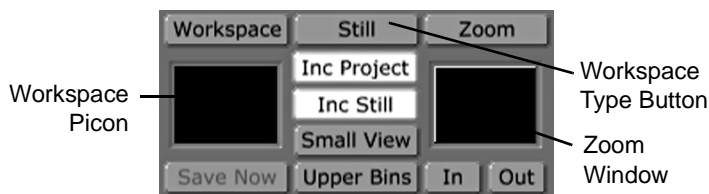
Scale 1:1 Snaps the layer back to full-screen size, rotation, and position. This does not bring the values of Scale, Move and Rotate back to 0. Instead, the value jumps to the nearest 1:1 value, such as 360 or -360 or 0. This allows you to spin a layer in and use the 1:1 button to frame it properly at the end, without worrying about the animation “unwinding” at the end.

Working With The Workspace

The Panamation workspace is where you see all of your hard work come together. It's where your strokes are displayed as you draw them, and it's from here that you choose how all that hard work is saved.

Workspace Controls

Use the **Workspace Controls** (following figure) to determine how your project is saved, and how it is viewed in the workspace. Want to save your document as a TIFF or JPEG? Want to zoom in on the workspace? The workspace controls are where you do this.



The Workspace Controls

The following list explains the functions of the Workspace Controls:

- | | |
|------------------------|--|
| Workspace Picon | This picon shows a miniature version of your workspace. Drag and drop this picon into a bin to save your work. Right-click on the picon to bring up the Workspace pop-up menu (see “Workspace Pop-Up Menu” on page 178 for more information about this pop-up menu). |
| Workspace | Brings up the Workspace Properties panel. |
| Save Now | Saves the workspace in the default bin, which is GlobeCaster/Bins/Panam/Projects. The workspace can also be saved by dragging-and-dropping the Workspace picon into a bin. The Save Now button updates the last file saved. This button is ghosted out if the workspace has been saved and no new changes have been made. |

Workspace Type	Defines the format that a project is saved in. Click on the button and choose the desired format from the Workspace Type pop-up menu. The format types at the top of the list are GlobeCaster native formats, while the ones listed at the bottom are PC formats (see “Workspace Type Pop-Up Menu” on page 176 for more information about these format types. The selected format type appears on the face of the Workspace Type button.
Inc (Include) Project	When Inc Project is selected, the instructions, such as timeline information, that makes up the project are included when the project is saved. This timeline file can be brought back into Panamation for later modification. Turning this button off means the file creates something that cannot be changed.
Inc (Include) Still	When Inc Still is selected, saving a project saves the actual effect file. This button should be turned off if you are creating a stationary graphic, and don't want a usable effect for the Air Command or Predator.
Small View	Shrinks the workspace and bins, allowing more room for the timeline. This is helpful when adjusting keyframes and strokes from within the timeline, as there is more room to display all of the expanded tracks.
Upper Bins	Toggles the bins to the right and left of the workspace on and off. If the bins are toggled off, a new bin window can not be opened in the space to the left and right of the workspace.

Zoom Window

Click-and-drag the picon in the **Zoom Window** to move the workspace around. Right-clicking in the Zoom window brings up a pop-up menu with the options of **Zoom Off**, **Zoom x2**, **Zoom 1/2**, or **Select Area**.

- Choosing **Zoom Off** returns the workspace display to its original size.
- Choosing **Zoom x2** doubles the size the workspace is displayed.
- Choosing **Zoom 1/2** halves the size the workspace is displayed.
- Choosing **Select Area** gives you a magnifying glass cursor that allows you to select the area you wish to zoom in on.

In

Zooms in on the workspace, magnifying it.

Out

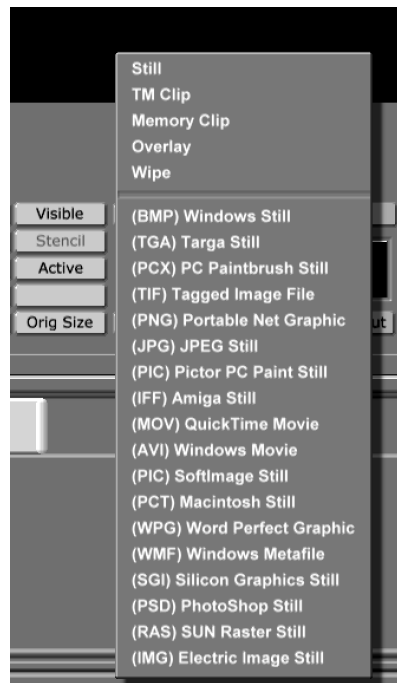
Zooms the workspace out, making it smaller.

Workspace Type Pop-Up Menu

The Workspace Type pop-up menu (following figure) is where you choose the format that a project is saved in. The format types at the top of the pop-up menu are GlobeCaster native formats, while the ones listed at the bottom are PC formats. The selected format type appears on the face of the Workspace Type button.

NOTE Some GlobeCaster formats in this pop-up menu may be greyed out if the workspace dimensions in the Workspace Properties panel are set to 720x486 (NTSC) or 720x576 (PAL).

Bring up this pop-up menu by clicking on the **Workspace Type** button.



The Workspace Type Pop-Up Menu

The following list explains the formats listed in this menu:

Still

With Still selected, when a project is saved, it is saved as a GlobeCaster framestore. This framestore can be dragged-and-dropped into any GlobeCaster workspace.

TM (Time Machine) Clip	With TM Clip selected, when a project is saved, it is saved as a Time Machine clip (if a Time Machine is installed). This clip can then be loaded and played back in Air Command or Predator.
Memory Clip	With Memory Clip selected, when a project is saved, it is saved as a ClipMem. ClipMems are clips that are recorded directly into RAM on the Warp Engine card. ClipMems are saved to the hard drive. This clip can then be loaded and played back in Air Command or Predator.
Overlay	With Overlay selected, when a project is saved, it is saved as a graphic overlay. If you were creating a corner bug or graphic overlay, this is the format you want your project saved in.
Wipe	With Wipe selected, when a project is saved, it is saved as a wipe transitional effect. This effect can be loaded and played back in Air Command or Predator.
Other Formats	The other formats on this pop-up menu are non-GlobeCaster-native formats. You may want to choose one of these formats if you are using your Panamation project with another program. Of course, GlobeCaster can open and work with any one of these formats.

Workspace Pop-Up Menu

From the **Workspace** pop-up menu (following figure), you can change how the workspace behaves and is displayed by choosing options or bringing up other panels from this menu. From this pop-up menu, you can also choose to clear the workspace and start a new project.

Bring up the **Workspace** pop-up menu by right-clicking on the Workspace picon in the Workspace Controls.



The Workspace Pop-Up Menu

Following is a list that details the choices of this pop-up menu:

Properties...	Brings up the Workspace Properties panel.
Stats...	Brings up the Stats panel, from which you can choose to display objects' properties, such as size and location, within the workspace (see "Stats Panel" on page 190 for more information about this panel).
Select All	Selects every stroke in the workspace.
About...	Brings up a pop-up menu that tells you information about Panamation, including which version of Panamation you are using.

**Workspace
Visible**

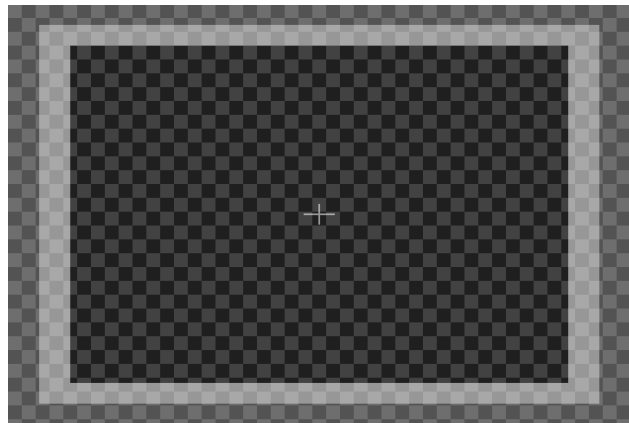
Toggles the workspace on or off. If the workspace is toggled off, a new bin, help window, or timeline can be opened in its place by right-clicking in the empty space and choosing an option from the pop-up menu.

SafeArea

Turns Safe Areas on or off. Your workspace is actually bigger than what can be displayed by an average television. The boundaries show what is actually seen on a typical television. The inner border is called the Safe Title Area, and the outer color border is called the Safe Action Area. Everything within the Safe Title Area will fit on any television screen.

The keyboard command to toggle the Safe Area on and off is the Esc key.

The following figure illustrates how the workspace is displayed with SafeArea turned on.



Workspace with SafeArea On

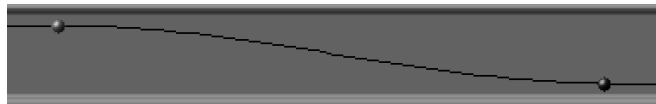
Record

Brings up the **Digitize Clip** panel, where you can record a ClipMem or a clip digitized with Time Machine, if a Time Machine is installed in your GlobeCaster.

Cubic

Sets the motion of an object between its keyframes. A cubic interpolation means that the animation steps in between keyframes follow a curved path, and the acceleration of the object increases. Cubic is the default setting for object motion.

The following figure illustrates a keyframe track in the timeline with a cubic interpolation.



Keyframe Track with Cubic Interpolation

Linear

Sets the motion of an object between its keyframes. A linear interpolation means that the animation steps in between keyframes follow the straightest path possible, and the object moves at a constant velocity.

The following figure illustrates a keyframe track in the timeline with a linear interpolation.

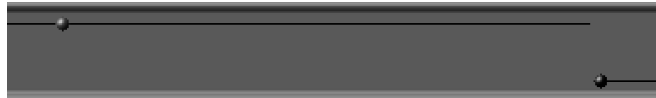


Keyframe Track with Linear Interpolation

Hold

Sets the motion of an object between its keyframes. With **Hold** selected, an object stays at its current position until the next keyframe, where it jumps to its new position.

The following figure illustrates a keyframe track in the timeline with a hold interpolation.



Keyframe Track with Hold Interpolation

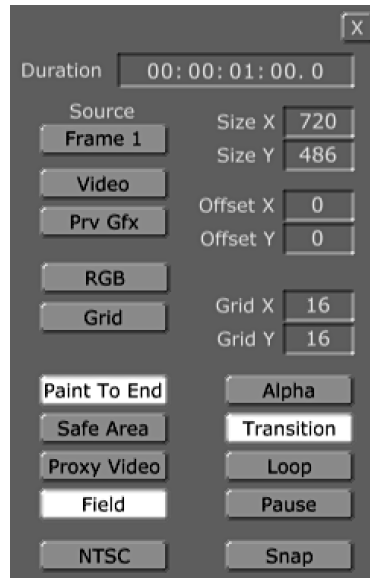
New Project

Clears the workspace and starts a new project.

Workspace Properties Panel

From the **Workspace Properties** panel (following figure), you can set how the workspace is viewed and how a saved transition or effect behaves when played back in Air Command. From this panel, you can also set the Program source without having to launch the Air Command application.

Bring up this panel by clicking the **Workspace** button, or by right-clicking on the **Workspace** picon and selecting **Properties** from the pop-up menu.



The Workspace Properties Panel

The following list explains the **Workspace Properties** panel's buttons and functions:

Duration Window	Shows the length of the animation, overlay, AVI, Wipe, etc. in a standard timecode readout (HH:MM:SS:FF). Set the length of the project by clicking on any of the timecode numbers and typing the desired time. GlobeCaster defaults to a time of 1 second (30 frames/60 fields).
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Source Acts as a mini-switcher, allowing you to set the Program video source from within Panamation, without having to go back to Air Command. To do this, click on the **Source** button and choose the desired source from the pop-up menu. Whatever source is chosen here as the Program source is what is digitized from the **Digitize Clip** panel.

The keyboard commands for the video sources are the **F1** through **F10** keys on the keyboard.

Size X, Size Y Displays the size of the workspace in pixels. **Size X** is the width, and **Size Y** is the height. The default size is 720x486 for NTSC and 720x576 for PAL, which are the standard sizes for video.

Video When the **Video** button is selected, the workspace is shown over the Program Out source. This option is helpful if you want to paint over live video or preview a transition or effect you just created. To paint over live video, Alpha must be turned on.

The following figure illustrates a stroke painted over a live video source with alpha turned on.



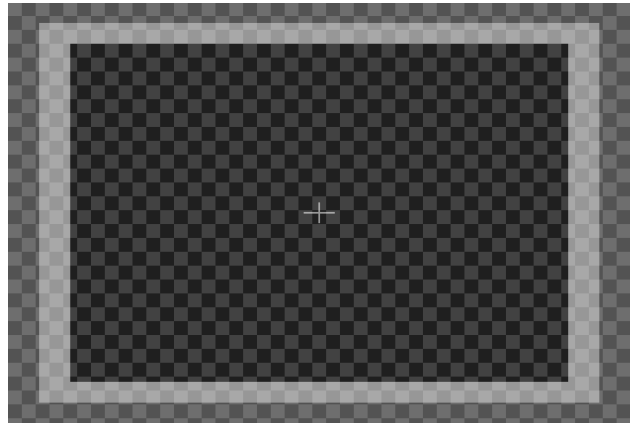
Stroke Painted Over Live Video

Prv Gfx (Preview Graphics)	Works in conjunction with painting over live video. To use the Preview Graphics function, the Video button in the Workspace Properties panel must be selected. With the Prv Gfx button selected, strokes drawn in the Panamation workspace are displayed in the Preview monitor. When this function is on, the video displayed in the Program monitor is also displayed in the Preview monitor. This function is useful if you want to paint over live video and want to preview what you have drawn before you display it over your Program out video.
Offset X, Offset Y	Sets the beginning point of a grid in the workspace. Offset X sets how far in from the left the grid begins. Offset Y sets how far down from the top the grid begins. The default is 0 for both of these values.
Grid X, Grid Y	These values adjust the size of the grid. The Grid X value sets the width of the grid. The Grid Y value sets the height of the grid.
RGB/YUV Selector	Sets the working color format for your project. Clicking this button brings up a pop-up menu, from which you can select RGB or YUV .
Grid	Turns the snap-to-grid function on. By adjusting the grid values, you can easily line up objects using this tool. To see the grid, click the Alpha button on.
Paint To End	When selected, every brush stroke lasts until the end of the effect. If Paint To End is off, each object lasts for only one frame. With Paint To End off, you can create rotoscope-style animation.

Safe Area

Displays the maximum safe viewing area of the workspace. Your workspace is actually bigger than what can be seen by an average television. The boundaries show what is actually seen on a typical television. The inner border is called the Safe Title Area, and the outer color border is called the Safe Action Area. Everything within the Safe Title area will fit on any television screen.

The following figure illustrates how the workspace is displayed with SafeArea turned on.

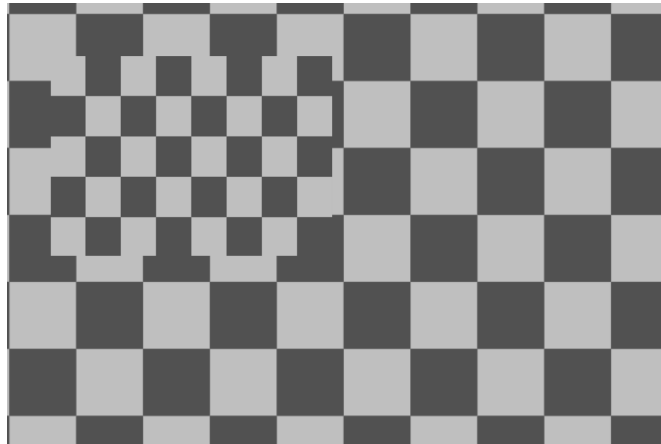


Workspace with SafeArea On

Proxy Video Turning this function on replaces animated textures; such as AVIs, ClipMems, and Time Machine clips; with a proxy checkerboard pattern.

TIP: The Proxy Video function makes it easier to work with complex effects on a slow host PC. Be sure to turn Proxy Video off before you save the final version of your project.

The following figure illustrates animated textures in the workspace with Proxy Video on.



The Workspace with Proxy Video On

Field This button has no function unless the **Paint To End** button is deselected. If the Field button is deselected, a stroke drawn in the workspace only appears for one frame. If the **Field** button is selected, a stroke drawn in the workspace only appears for one field. There are 60 fields in a second of video in NTSC format, and 50 fields in a second of video in PAL format. There are 30 frames in a second of video in NTSC format, and 25 frames in a second of video in PAL format.

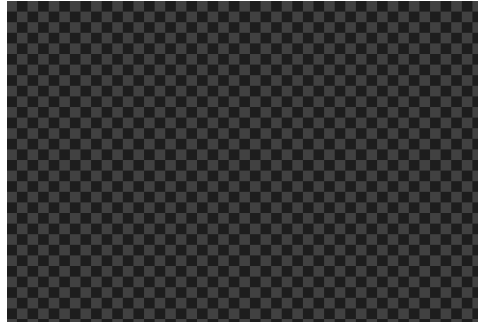
NTSC/PAL

Switches between NTSC and PAL video formats. Click the button and select which format you want from the pop-up menu. NTSC format is composed of 30 frames of video per second. PAL format is composed of 25 frames of video per second. The default workspace size for NTSC is 720x486. The default workspace size for PAL is 720x576.

Alpha

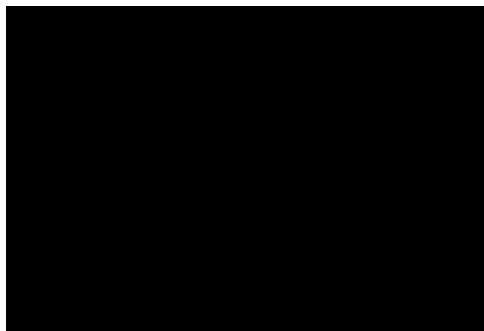
With Alpha selected, the first layer in your workspace is given an alpha channel. This option should be turned on if you want to create an overlay effect such as a corner bug or lower third. With Alpha selected, you also have the option of painting over live video. To do this choose your program out source with the **Source** button, and then click the **Video** button. You can now paint directly onto live video.

The following figure illustrates how the workspace is displayed with Alpha selected.



The Workspace with Alpha Selected

The following figure illustrates how the workspace is displayed with Alpha off.

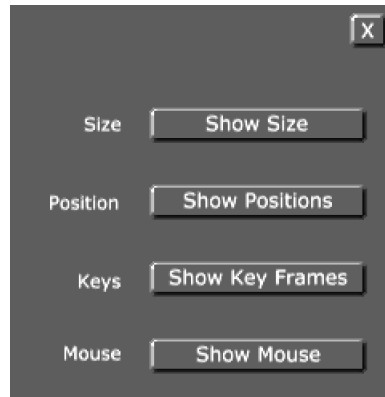


The Workspace with Alpha Off

Transition	Affects how a project behaves after it is saved and run in Air Command. If this button is selected, a saved effect transitions between Program and Preview at the end of the effect when it is run in Air Command. This gives you the ability to create transitional effects with graphics.
Loop	Affects how a project behaves when it is saved and run in another application, such as Air Command. With Loop selected, the effect repeats indefinitely while it is when running.
Pause	<p>Affects how a project behaves when it is saved and run in another application, such as Air Command. With Pause selected, a pause point is added on the current frame in the animation. This means that if the effect is played back in Air Command, it pauses until the auto button is clicked to start it back up or turn it off.</p> <p>Adding a pause point to an effect also allows an overlay to be stretched once it is dragged into a Predictor timeline. When stretching an overlay with a pause point in it in Predictor, the overlay is stretched at the pause point.</p>
Snap	Grabs a still of the image on the input selected with the Source button. This still is placed in the workspace. If the Snap button is clicked again, another still is placed in the workspace over the first still that was snapped.

Stats Panel From the Stats panel (following figure), you can change the way strokes are displayed in the workspace. Depending on what button you select from this panel, strokes will display their numeric position in the workspace or their size. You can also choose to display the mouse's numeric position in the workspace.

Bring up this panel by right-clicking on the **Workspace** picon and selecting **Stats** from the pop-up menu.

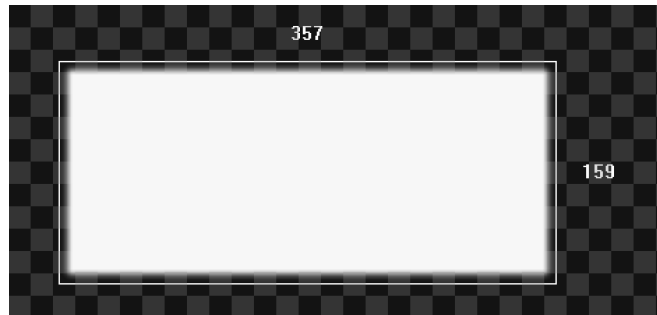


The Stats Panel

The following list explains the functions of the buttons in the **Stats** panel:

Show Size When **Show Size** is selected, values representing the size of a selected object are displayed just outside the bounding box around the object. The height is to the right of the bounding box. The width is just above the bounding box.

The following figure illustrates a stroke that was selected with the **Show Size** function turned on.



Selected Stroke with Show Size Function On

Show Positions

When **Show Positions** is selected, numbers indicating a selected object's position in the workspace is displayed just inside the top of the object's bounding box. The first number represents the X position of the object. The second number represents the Y position of the object.

The following figure illustrates a stroke that was selected with the Show Positions function turned on.

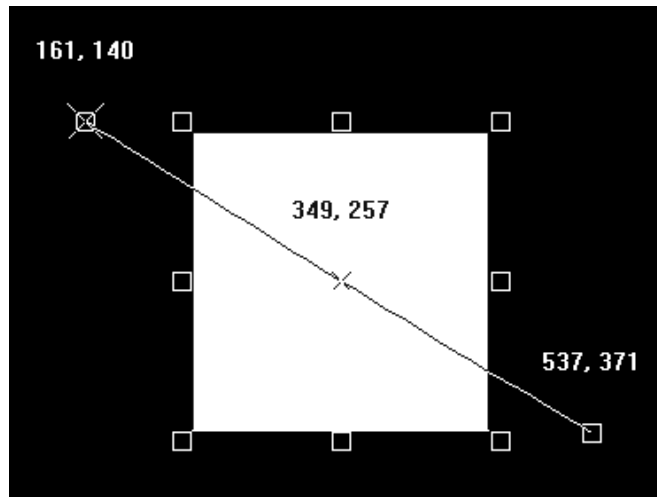


Selected Stroke with Show Positions Function On

Show Keyframes

Works in conjunction with the Show Path function. To use this function, first right-click on the selected stroke and choose **Show Path** from the pop-up menu. This shows the animation path of the selected stroke. Clicking the **Show Keyframes** button displays numbers above the keyframes, indicating the position of the keyframes in the workspace. The first number represents the X position of the object. The second number represents the Y position of the object.

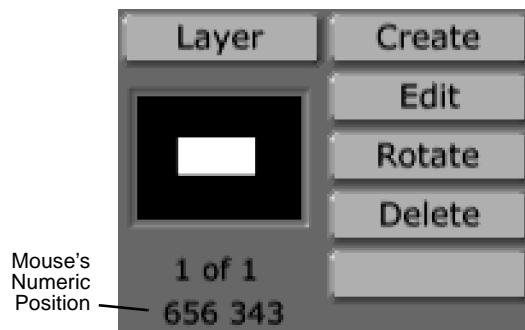
The following figure illustrates a stroke that was selected with the Show Path and Show Keyframes functions turned on.



Selected Stroke with Show Path and Show Keyframes Functions On

Show Mouse When **Show Mouse** is selected, the mouse's numeric position in the workspace is displayed just below the Layer picon in the Layer Controls. The first number represents the X (horizontal) position of the mouse. The second number represents the Y (vertical) position of the mouse.

The following figure illustrates the mouse's position in the workspace, which is displayed in the Layer Controls.

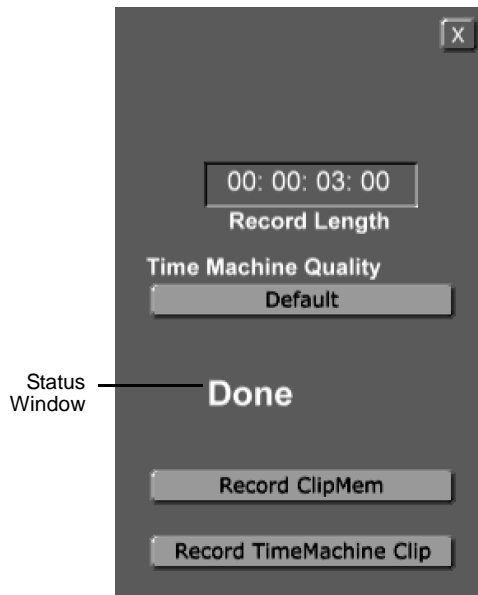


The Mouse's Numeric Position Displayed in the Layer Controls

Digitize Clip Panel

With the **Digitize Clip** panel (following figure) you can record ClipMems or digitize clips to Time Machine, if one is installed. ClipMems are clips that are recorded directly into RAM on the Warp Engine card. They can be saved out directly, enabling playback as a clip in Preditor. With Time Machine clips in Panamation, Time Machine records whatever is set as the Program out source, so you must first set the Program out source in the **Workspace Properties** panel.

Bring up the **Digitize Clip** panel by right-clicking on the **Workspace** picon and selecting **Record** from the pop-up menu.



The Digitize Clip Panel

The following list explains the functions of the **Digitize Clip** panel:

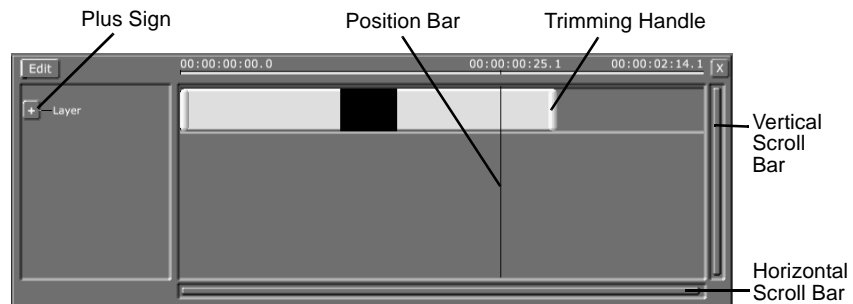
Record Length

Sets the length of the clip that is recorded. To change this value, click on the number and type in a new one, or click on the number and drag up or down.

Time Machine Quality	Clicking on this button brings up a pop-up menu, from which the quality of the recorded clip can be chosen. The quality choices are Default , and 1 through 6 . The lower the number, the better the quality is. This button has no function without a Time Machine installed in your GlobeCaster.
Status Window	Displays the status of the clip being recorded, such as "Recording."
Record ClipMem	<p>Records a ClipMem clip.</p> <p>ClipMems are clips that are recorded directly into RAM on the Warp Engine card. The length a ClipMem is determined by the amount RAM you have installed on the Warp Engine card. With the maximum 128MB of RAM installed, 6.3 seconds of video can be recorded at a time. If you have 16MB of RAM installed on the Warp Engine card, you can record 20 frames of NTSC video.</p> <p>ClipMems that are recorded in Panamation are saved in the bin directory GlobeCaster/Bins/Panam/Projects.</p>
Record TimeMachine Clip	<p>Records a clip to Time Machine.</p> <p>Time Machine clips are clips that are recorded to Time Machine's hard drives. With a Time Machine installed in your GlobeCaster, you can record digital clips that are of any length.</p> <p>For Time Machine clips that are digitized in Panamation, a shortcut picon to this clip is saved in the bin directory GlobeCaster/Bins/Panam/Projects.</p>

Working With The Timeline

The Panamation timeline (following figure) is a representation of every still, stroke, layer, etc. in the workspace. In the timeline, these objects are displayed as events, and any of these events can be altered and adjusted directly from the timeline. Simply right-click on an event and select **Properties** from the pop-up menu. This brings up a properties panel for the selected event.



The Panamation Timeline

The following list explains the timeline's interface:

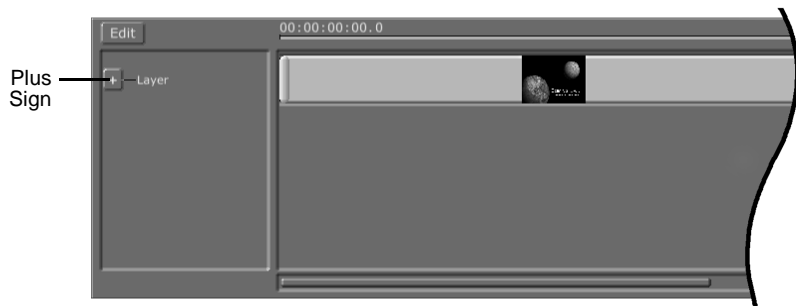
- | | |
|------------------------|---|
| Edit | Allows you to cut, copy, or paste objects in the timeline. Click on the Edit button and choose Cut , Copy , or Paste from the pop-up menu. |
| Plus Sign | Drops down the selected track, displaying any stroke, animation keyframes, etc. tracks contained within. These tracks are called child tracks. |
| Trimming Handle | Clicking-and-dragging these handles adjusts the length of an event. Some events have a fixed length, and dragging the handle has no function. |
| Position Bar | Represents the current position in the timeline. Clicking-and-dragging the Position Bar right and left scrubs through the timeline. This is handy if you wish to go to a certain point in the timeline. The current position in the timeline is displayed as timecode above the Position Bar. |

- Vertical Scroll Bar** Clicking-and-dragging this bar up or down allows you to view tracks that are hidden when there are too many to fit on the interface all at once.
- Horizontal Scroll Bar** Clicking-and-dragging this bar left or right moves the timeline display forward or backward. Clicking-and-dragging this bar up or down zooms the timeline in or out, changing its displayed size. Clicking-and-dragging diagonally does both at once.

Timeline Tracks

In a Panamation timeline, tracks are a region that runs across the timeline. This region denotes a specific channel of video, effects, strokes, or animation properties. Clicking on the plus sign next to a track opens up any child tracks that may be contained within that track. For example, clicking on a layer track opens the tracks for strokes contained within that layer.

When you start a new project in Panamation, only a layer track is visible (following figure).



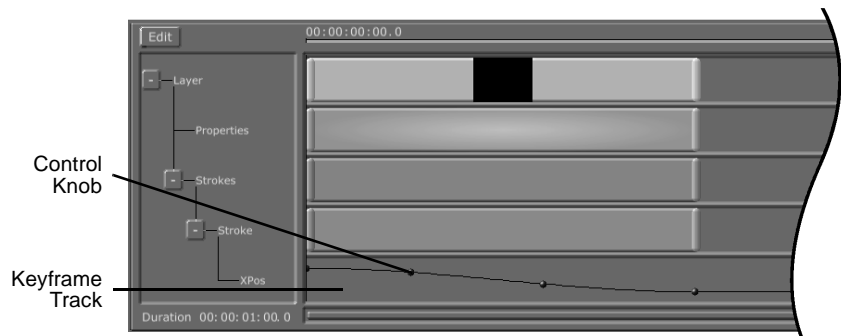
A Layer Track on the Timeline

To open the Properties and Strokes tracks, click on the plus sign next to the name of the layer or stroke track, or right-click in the track and choose **Expand Tree** or **Expand All** from the pop-up menu. If you have drawn any strokes in your workspace, you see the Stroke track under the Properties track (following figure).



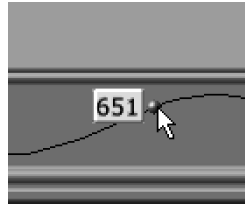
Stroke and Keyframe Tracks on the Timeline

In addition to the stroke tracks, there is also a Keyframe track for each animated property for a stroke. By clicking-and-dragging the control knob for a keyframe, you can adjust the property value for that keyframe. Right-clicking on a control knob brings up the **Event** panel, which gives you precise control over the property's value (see "Event Panel" on page 204 for more information about this panel). To open the Keyframe track (if there is one), click on the plus sign next to the stroke, or right click on the stroke track and choose **Expand Tree** from the pop-up menu. You see the Keyframe track under the Stroke track (following figure).



A Typical Keyframe Track

When you click on the control knob for a keyframe, a box appears that indicates the property value for that keyframe (following figure).



A Keyframe Property Value

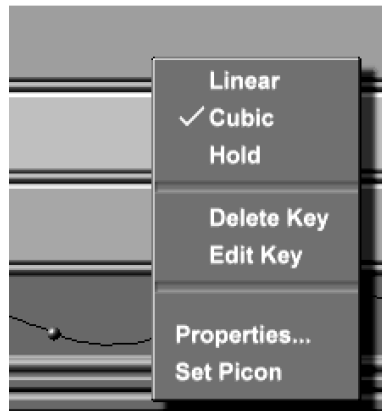
Clicking-and-dragging a control knob left or right changes that keyframes position in the timeline.

You can also adjust the relative property value by dragging the control knob up or down. This value can also be adjusted by right-clicking the control knob and selecting **Edit Key** from the pop-up menu. This brings up the **Event Panel**, from which you can type in a specific value (see “Event Panel” on page 204 for more information about this panel).

Keyframe Pop-Up Menu

The Keyframe pop-up menu (following figure) gives control over an individual keyframe. From this pop-up menu, you can adjust the interpolation of the keyframe and bring up the **Event** panel or properties panel for that keyframe.

Bring up this pop-up menu by right-clicking on a control knob in a Keyframe track.



The Keyframe Pop-Up Menu

The following list details the choices of this pop-up menu:

Linear

Sets the motion of an object between its keyframes. A linear interpolation means that the animation steps in between keyframes follow the straightest path possible, and the object moves at a constant velocity.

The following figure illustrates a keyframe track in the timeline with a linear interpolation.



Keyframe Track with Linear Interpolation

Cubic

Sets the motion of an object between its keyframes. A cubic interpolation means that the animation steps in between keyframes follow a curved path, and the object accelerates. Cubic is the default setting for object motion.

The following figure illustrates a keyframe track in the timeline with a cubic interpolation.

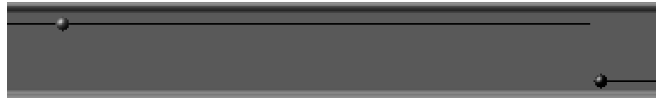


Keyframe Track with Cubic Interpolation

Hold

Sets the motion of an object between its keyframes. With **Hold** selected, an object stays at its current position until the next keyframe, where it jumps to its new position.

The following figure illustrates a keyframe track in the timeline with a hold interpolation.



Keyframe Track with Hold Interpolation

Delete Key

Deletes the selected keyframe.

Edit Key

Opens the **Event** panel, where you can precisely adjust the level of the selected keyframe (see the section “Event Panel” on page 204 for more information about this panel).

Properties...

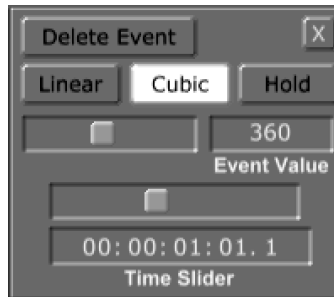
Opens the properties panel for the selected keyframe (see “Stroke Properties Panel” on page 51 for more information about this panel).

Set Picon

Creates a picon for the event on its track in the timeline. Setting a picon here is an easy way to keep track of all the elements in an effect.

Event Panel The Event panel (following figure) gives you precise control over the value of a keyframe. From this panel, you can adjust the keyframe's value, change its position in the timeline, or alter the interpolation of the keyframe. As you adjust these values, you see the position of the keyframe change in the timeline.

Bring up this panel by right-clicking on a control knob and choosing **Edit Key** from the pop-up menu.



The Event Panel

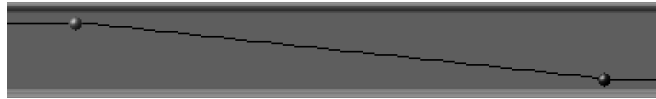
The following list explains how to use the **Event** panel:

Delete Event Deletes the control knob and keyframe from the timeline.

Linear

Sets the motion of an object between its keyframes. A linear interpolation means that the animation steps in between keyframes follow the straightest path possible, and the object moves at a constant velocity.

The following figure illustrates a keyframe track in the timeline with a linear interpolation.

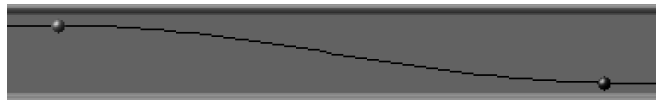


Keyframe Track with Linear Interpolation

Cubic

Sets the motion of an object between its keyframes. A cubic interpolation means that the animation steps in between keyframes follow a curved path, and the acceleration of the object increases. Cubic is the default setting for object motion.

The following figure illustrates a keyframe track in the timeline with a cubic interpolation.

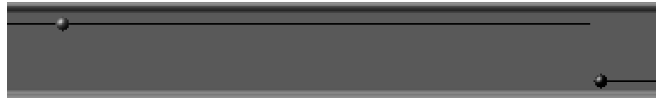


Keyframe Track with Cubic Interpolation

Hold

Sets the motion of an object between its keyframes. With **Hold** selected, an object stays at its current position until the next keyframe, where it jumps to its new position.

The following figure illustrates a keyframe track in the timeline with a hold interpolation.



Keyframe Track with Hold Interpolation

Event Value Slider

Clicking-and-dragging this slider right or left adjusts the value set for the selected key. For example, if the key is set for horizontal placement, then adjusting this slider adjusts the object horizontally in the workspace. This value can also be adjusted by clicking on the numeric value and typing in a new one, or by clicking on the numeric value and dragging up or down with the mouse.

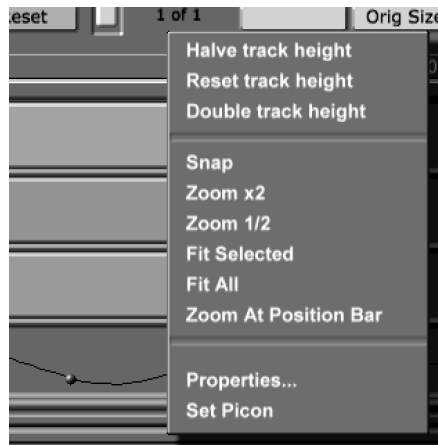
Time Slider

Clicking-and-dragging this slider right or left adjusts the key's position in the timeline. This value can also be adjusted by clicking on the numeric value and typing in a new one, or by clicking on the numeric value and dragging up or down with the mouse.

View Keyframe Track Pop-Up Menu

From the View Animation Track pop-up menu (following figure) you can change how a Keyframe track is displayed. For example, you can change the height of the track or zoom in or out on it. This is helpful if you want to click-and-drag a control knob for a keyframe property, and want more precise control.

Bring up this pop-up menu by right-clicking in the empty space of a Keyframe track.



The View Keyframe Track Pop-Up Menu

The following list explains the choices of this pop-up menu:

Halve track height Changes the height of the selected animation track so that it is displayed at half its size.

The following figure illustrates a keyframe track with its size halved.

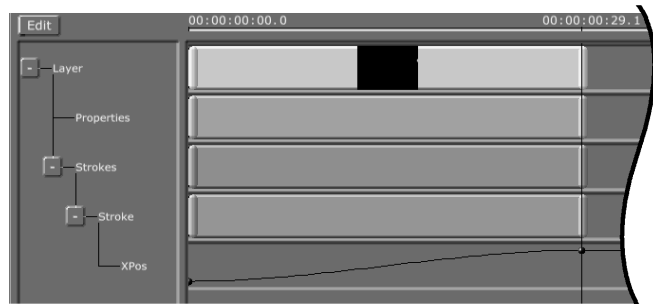


Keyframe Track with its Size Halved

Reset track height

Resets the height of the selected animation track to its original size.

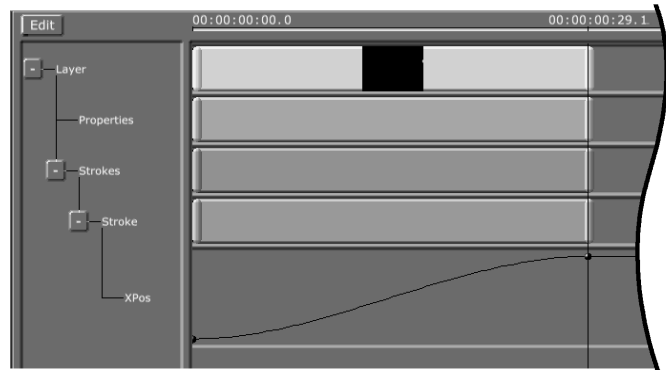
The following figure illustrates a keyframe track with its size reset to its original height.



Keyframe Track with its Size Reset

Double track height Changes the height of the selected animation track so that it is displayed at double its size.

The following figure illustrates a keyframe track with its size doubled.



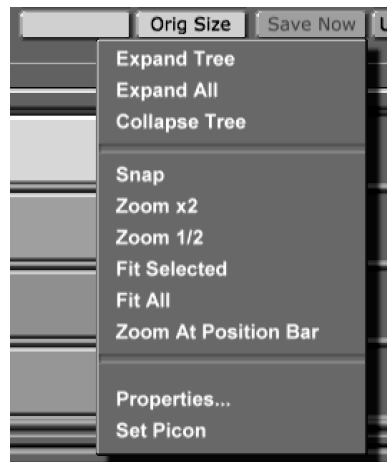
Keyframe Track with its Size Doubled

The other choices in this pop-up menu function the same as in the **View Timeline** pop-up menu (following section).

View Timeline Pop-Up Menu

With the View Timeline pop-up menu (following figure) you can affect how the timeline is displayed on your screen. You can expand the tree for the track you selected or zoom in or out on a timeline. This pop-up menu also gives the flexibility to bring up the properties panel for a track or set a picon for that track.

Bring up this pop-up menu by right-clicking in an empty area next to a track. Depending on whether you click on a track for a stroke, property, or layer, some of the options may not be available. However, all of the options in this pop-up function are the same for each track.



The View Timeline Pop-Up Menu

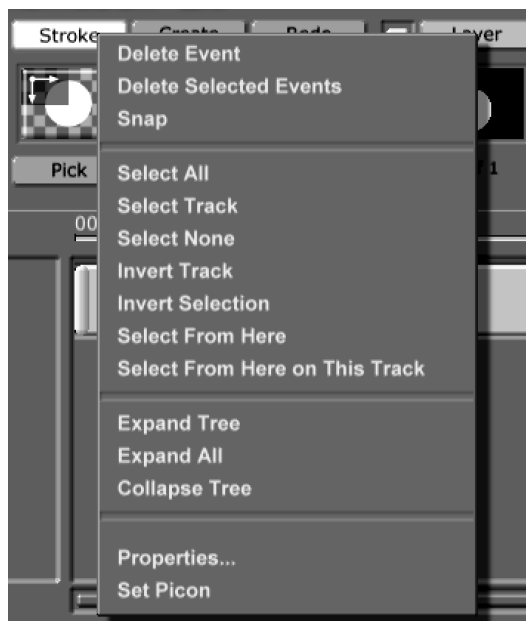
The following list explains how to use the View Timeline pop-up menu:

- | | |
|----------------------|--|
| Expand Tree | Expands the track in the timeline to make all elements within that directory visible. This display is called a tree. |
| Expand All | Expands all the tracks to make them visible in the timeline. |
| Collapse Tree | Closes all the tracks below the selected track so that they are no longer visible in the timeline. |

Snap	Works in conjunction with the position bar when moving events in the timeline. Selecting Snap from the View Timeline pop-up menu brings up another pop-up menu, from which you can select Snap Off , or a number of frames. Selecting a frame number causes the position bar to turn yellow when they are within the set number of frames. You can then release the event, and it jumps (or snaps) into position.
Zoom x2	Zooms the timeline to view events at twice their length.
Zoom 1/2	Zooms the timeline to view events at half their length.
Fit Selected	Zooms the timeline so that all selected events are visible on the screen.
Fit All	Zooms the timeline so that the entire timeline is visible on the screen.
Zoom At Position Bar	Enlarges the display of the area of the timeline where the position bar is.
Properties...	Opens the properties panel for the selected event. The type of properties panel that is opened depends on the nature of the event. For example, right-clicking on the track for a stroke and selecting Properties from the pop-up menu brings up the Stroke Properties panel.
Set Picon	Sets a picon for the event on its track in the timeline. Setting a picon here is an easy way to keep track of all the elements in an effect.

Event Pop-Up Menu

The Event pop-up menu (following figure) is where you can make choices about which tracks are selected. For example, if you had one track selected, but wanted to select every track but that one, you could choose **Invert Selection**. This would deselect the track you clicked on, and select all other tracks. Other such selection choices can be made from this pop-up menu.



The Event Pop-Up Menu

Bring up the Event pop-up menu by right-clicking on an event in the timeline.

The following list explains the choices in this menu:

Delete Event	Removes a selected event from the timeline.
Delete Selected Events	Removes all selected events from the timeline. To select more than one event in the timeline, click on the first event to select it, then push the Shift key on the keyboard and click on any additional tracks you want selected. To deselect an individual event, push the Shift key on the keyboard and click on the desired event.

Snap	Works in conjunction with the position bar when moving events in the timeline. Selecting Snap from the View Timeline pop-up menu brings up another pop-up menu, from which you can select Snap Off , or a number of frames. Selecting a frame number causes the position bar to turn yellow when they are within the set number of frames. You can then release the event, and it jumps (or snaps) into position.
Select All	Selects all events in the timeline.
Select Track	Selects the track that your mouse is clicked on.
Select None	Deselects all selected events.
Invert Track	Deselects the event(s) selected in a single track, and selects all other events in that track. Use this when an event or group of events is selected in a single track.
Invert Selection	Deselects the events that have been selected in the entire timeline, and selects all other events. Use this when an event or group of events is selected in the timeline.
Select From Here	Selects all events starting from where your mouse is pointed, to the end of the timeline.
Select From Here on This Track	Selects all elements, from where your mouse is pointed (on a single track) to the end of the timeline.
Expand Tree	Expands the directory in the timeline to make all elements within that directory visible. This display is called a tree.
Expand All	Expands all the directories to make them visible in the timeline.
Collapse Tree	Closes all the sub-directories below the selected track so that they are no longer visible in the timeline.
Properties...	Opens the properties panel for the selected event. The type of properties panel that is opened depends on the nature of the event. For example, right-clicking on the track for a stroke and selecting Properties from the pop-up menu brings up the Stroke Properties panel.

Set Picon Sets a picon for the event on its track in the timeline. Setting a picon here is an easy way to keep track of all the elements in an effect.

Transport And Keyframe Controls

The Transport and Keyframe controls (following figure) give you control over the timeline. With these controls you can jump to the beginning or end of the timeline, or play your clip (forward or reverse).



The Transport and Keyframe Controls

The following lists explains how to use these controls:

Transport Controls

These controls provide you with complete control over the timeline. For example, when you are creating an animation and need to move between keyframes, these controls help get the job done. The buttons, in order from left to right, are:



- **First Frame**

Skips to first frame



- **Rewind**

Rewinds



- **Reverse Play**

Plays in reverse



- **Jog Back 1 Field**

Moves back one field at a time



- **Stop**

Stops play



- **Jog Forward 1 Field**

Moves ahead one field at a time



- **Play**

Plays normally



- **Fast Forward**

Fast forwards



- **Last Frame**

Skips to last frame

Timecode Display	A timecode representation of which frame you are on in an effect. Jump around to different frames by clicking in the window, changing the number, and pressing Enter on your keyboard. Timecode is in standard SMPTE format (HH:MM:SS:FF). The number after the decimal point indicates the current field
Timecode Slider	Click-and-drag the Timecode Slider to shuttle through the animation you are creating. As you drag, the numbers in the Timecode Display change to let you know which frame you are on.
Prev Key	Moves the timeline back to the last place a keyframe was added.
Next Key	Skips the timeline to the next keyframe on the timeline.

Using The Application Buttons

Click on any of the four application buttons (following figure) to close Panamation and open the appropriate application. To leave Panamation open, hold down the **Shift** key while you click the application button.



The Application Buttons

Following is a list of how these buttons function:

–	Minimizes the GlobeCaster application you are in.
?	Brings up the Help window. This window guides you through tours of each activity and helps you learn each application.
X	Closes the GlobeCaster application you are in.
Air Command, Preditor, TitleWave, PersonalFX	Closes Panamation and opens the desired application.



Panamation Tutorials



Chapter 4

Chapter4

Tutorials

With Panamation you can create an unlimited variety of projects. This chapter contains tutorials that will teach you how to create these projects. The tutorials will take you step-by-step through many of Panamation's functions.

Included in these tutorials are lessons on creating animated wipes with graphics and creating multiple animated windows in Panamation using ClipMems and alpha channels.

These tutorials give you the foundation for your own projects. They also teach you how to use the functions contained within the tutorial to create other projects.

The tutorials in this chapter progress in difficulty as you work through the chapter. Every tutorial is designed to be informative to both the beginning and advanced user. That means that you could skip to the last tutorials, but they are easier if you complete prior tutorials.

The tutorials contained in this chapter are:

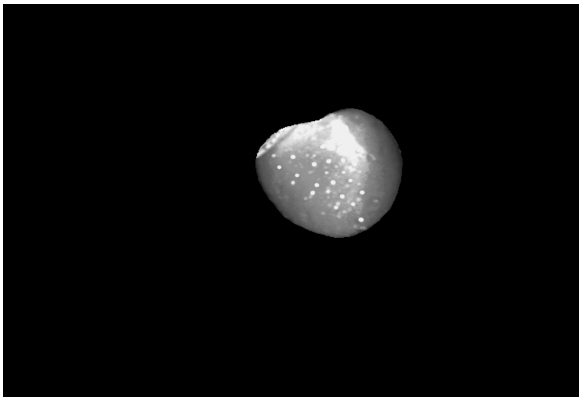
- Creating a custom brush.....222
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- Using the stencil function to create a mask.....285
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- Extracting custom graphics with the lift stroke function359

Creating A Custom Brush

A common application for paint programs is cutting out a small area of an image and creating a brush out of it. This is called a custom brush. Often, custom brushes are irregularly shaped and you can't simply key out the background to obtain the brush. You have to literally cut around what you want to use and save it as a brush.

In this tutorial, you will create a custom brush by drawing a spline stroke around a portion of a graphic and then turn it into a stroke using the lift stroke function. By creating a custom brush, you will get a feel for how Panamation's spline tool functions. You will also learn how to load stroke objects into the workspace.

The following figure illustrates a stroke drawn in the workspace using the custom brush created in this tutorial.



The Custom Brush Stroke in the Workspace

This tutorial is broken up into four steps. These steps are:

1. Preparing the workspace
2. Creating your custom brush
3. Saving the custom brush
4. Using the custom brush

Preparing The Workspace

Before you actually begin creating your custom brush, you need to first prepare the workspace. In this section of the tutorial, you will begin a new project in the workspace and load a graphic into the workspace.

Follow these steps to prepare the workspace:

1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a message box comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Locate the following picon for a picture of cherries on a cherry tree. It is located in the bin directory **GlobeCaster/Bins/Stills/Sampler**.



The Cherries Graphic Picon

3. Load this graphic into the workspace by double-clicking its picon. This is how you load any still into the workspace.

You see the graphic fill the entire workspace.

Now that you've prepared your workspace, you are ready to create your custom brush stroke.

Creating Your Custom Brush

You are now ready to create your custom brush. In this section of the tutorial, you will draw a spline object around the cherry you want to cut out. You will then use the lift stroke function to pull the cherry up onto your spline stroke. This will give you a feel for how the spline tool works. For additional information on working with splines, see “Panamation Tools” on page 63.

To create your custom brush, follow these steps:

1. Locate the spline stroke picon in the directory **GlobeCaster/Bins/Panam/Sampler**. It is the stroke picon with a green shape on it.



The Spline Stroke Picon

2. Load this stroke as the current stroke by clicking on it.

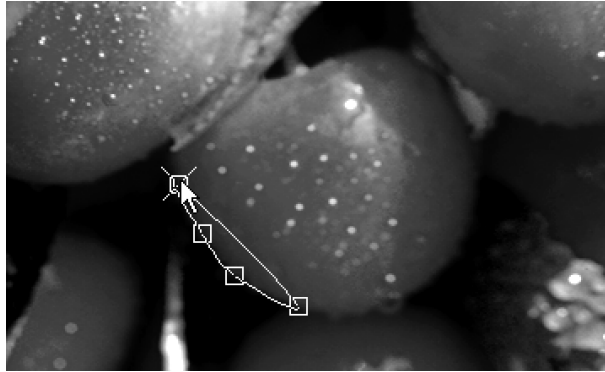
You see the picon in the Stroke Controls, indicating that it is loaded as the current stroke.

3. In the workspace, begin clicking around the edge of the center cherry. As you click, you see spline points added. As you add spline points, the shape of the stroke adjusts itself.

NOTE

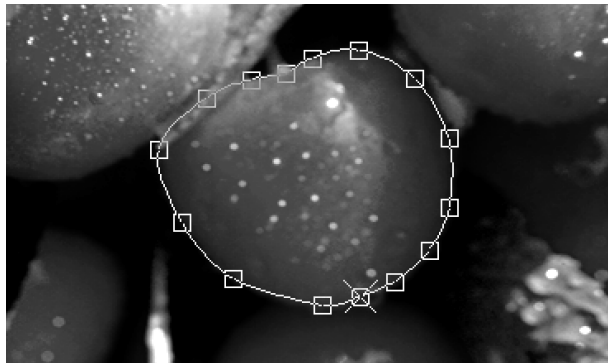
It is not important to be incredibly accurate when you add spline points in this step. You can go back later and adjust any point’s position to create a more accurate spline shape.

The following figure illustrates spline points drawn around the cherry in the center of the graphic.



Spline Stroke Drawn in the Workspace

4. Continue adding spline points until you have completely drawn around the cherry. The shape you drew should look similar to that in the following figure.



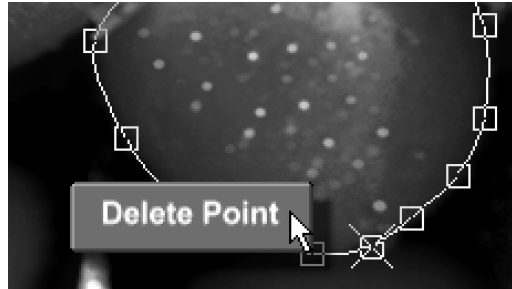
Spline Shape Drawn Around the Cherry

5. Adjust the spline points for your stroke so that the stroke's outline better frames the cherry's shape.

There are four ways you can adjust a spline shape. They are:

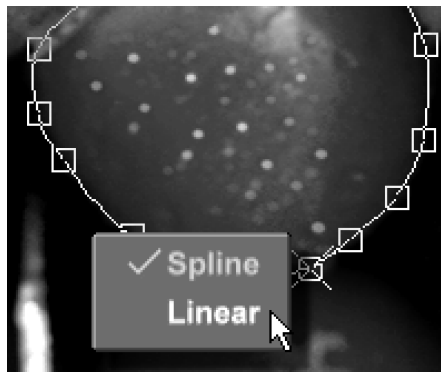
- a. Click-and-drag the desired point.

- b. Add a spline point by clicking on the stroke outline at the position where you want a new spline point. This new point can be adjusted like any spline point.
- c. Delete spline points by right-clicking on the desired point and choosing **Delete Point** from the pop-up menu (following figure).



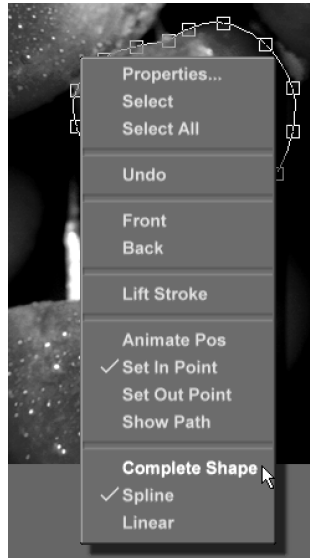
Choosing Delete Point from the Pop-Up Menu

- d. You can change the behavior of the outline's shape so that a section of the outline consists of a straight line, instead of a curved line. Do this by right-clicking on a section of the outline and choosing **Linear** from the pop-up menu (following figure).



Choosing Linear from the Pop-Up Menu

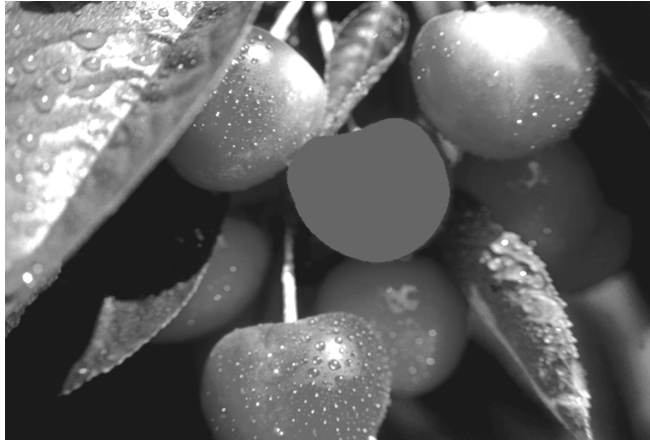
6. Complete the spline shape by right-clicking in the middle of the stroke and choosing **Complete Shape** from the pop-up menu (following figure). You can also complete the shape by pushing **Enter** on your keyboard.



Choosing Complete Shape from the Pop-Up Menu

In the workspace, you see the shape fill with green. For this tutorial, the color of the stroke is unimportant since you will lift the underlaying picture onto the stroke. If you want to change the color you can do so by bringing up the **Color Palette** for this stroke.

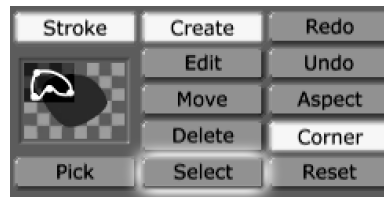
The following figure illustrates the completed spline stroke in the workspace.



The Completed Spline Stroke in the Workspace

NOTE It is important to note that once a spline's shape is completed, you can still edit the spline points for the shape. Do this by selecting the shape by clicking on it and then clicking the **Edit** button in the Stroke Controls. In the workspace, you see the spline points for your object.

7. Click the **Select** button (following figure) in the Stroke Controls so that the button is selected. By clicking the **Select** button, you are putting Panamation in select mode. In this mode, you can select individual strokes in the workspace.

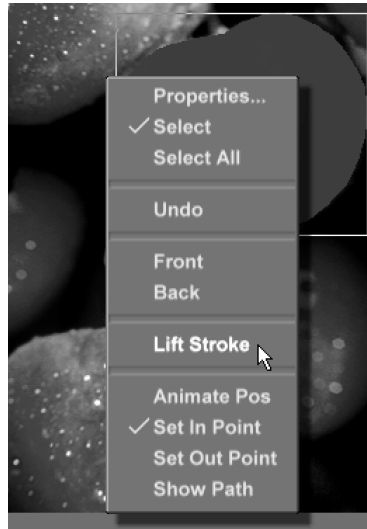


The Select Button

8. In the workspace, click on the spline stroke to select it.

In the workspace, you see a bounding box around the stroke, indicating that it is selected.

9. In the workspace, right-click on the spline stroke and choose **Lift Stroke** from the pop-up menu (following figure). By doing this, you are lifting the picture underneath your stroke onto your stroke.



Choosing Lift Stroke from the Pop-Up Menu

NOTE The **Lift Stroke** function only works on the currently selected layer.

In the workspace, it appears as if the spline stroke disappears, but it did not. Since it has a piece of the picture's image on it, it blends in perfectly with the background. If you click on it again, you see a bounding box around the stroke.

You now have a stroke with the image of a cherry on it. This is the image we want our custom brush to draw once the brush is saved. Move ahead in this tutorial to save the stroke as a custom brush.

Saving The Custom Brush

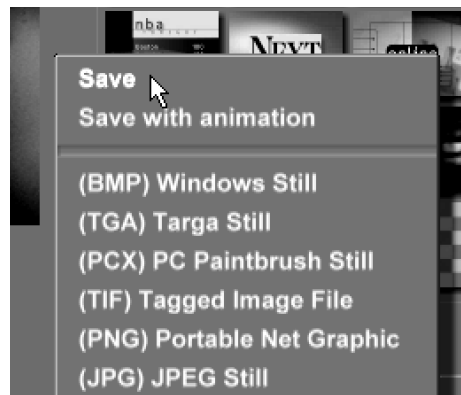
Now that you have a stroke with the image of a cherry on it, you can save it as a brush stroke. By following the steps in this section of the tutorial, you will learn how to save any stroke as a brush stroke.

To save your custom brush, follow these steps:

1. In the workspace, click-and-drag your stroke from the workspace into a bin. Drop this picon into the bin directory **GlobeCaster/Bins/Panam/Projects**. Saving the custom brush in this bin makes it easier to find when you use it later in this tutorial.

Notice that when you drag the stroke past the borders of the workspace, it becomes a picon.

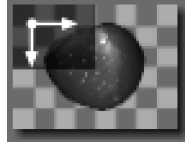
2. Choose **Save** from the pop-up menu (following figure) that comes up when you drop the stroke picon into the bin.



Choosing Save from the Pop-Up Menu

If you animated any of the stroke's properties, such as horizontal position, you can save that information with the stroke by choosing **Save with animation** from the pop-up menu. The choices below this selection are not native GlobeCaster formats. Choose one of these formats if you want to export a GlobeCaster graphic into another program.

You see the picon for your stroke (following figure) in the bin you saved it in.



The Custom Brush Stroke's Picon

You now have a stroke of the cherry graphic that can be loaded into the workspace or loaded as the current stroke in the Stroke Controls. To learn how to use this stroke, continue on to the next section of this tutorial.

Using The Custom Brush

In this section of the tutorial, you will learn how to use your custom brush. The brush's stroke can be loaded into the workspace as a stroke that retains the original stroke's size and shape. It can also be loaded as the current stroke in the Stroke Controls and drawn in the workspace as you would use any brush.

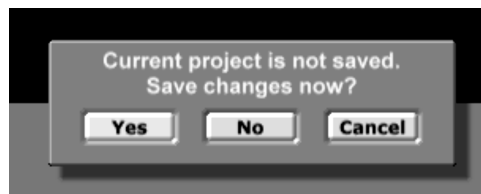
To bring the custom brush stroke into the workspace and have it retain its original size and shape, follow these steps:

1. Start a new project in the workspace by right-clicking on the **Workspace** picon and choosing **New Project** from the pop-up menu (following figure).



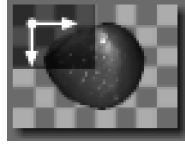
Choosing New Project

You see a window come up (following figure) asking if you want to save the current project. Click the **No** button.



The Save Project Window

2. Locate the custom brush's picon (following figure) in the directory **GlobeCaster/Bins/Panam/Projects**.



The Custom Brush Stroke's Picon

3. While holding the **Shift** key on your keyboard, drag-and-drop the custom brush's picon from the bin into the workspace. By doing this, you are dropping a stroke into the workspace that has the same position, size, and shape that the original stroke had before it was saved.

You see the stroke in the workspace. Note that it has the same position, size, and shape that the original stroke had before it was saved.

The following figure illustrates a custom brush stroke that was dragged-and-dropped into the workspace while holding the **Shift** key on the keyboard.



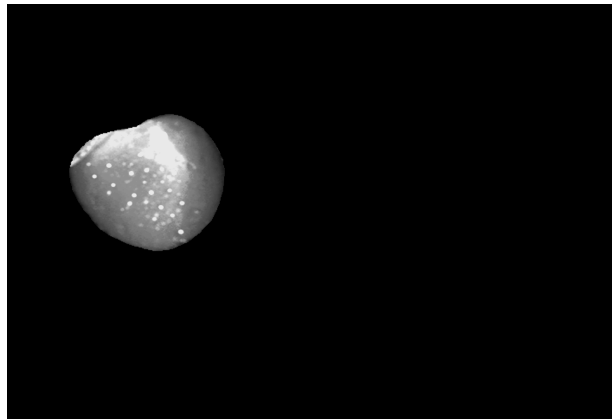
The Stroke in the Workspace

4. Delete the stroke by pushing **Delete** on your keyboard. Pushing **Delete** deletes the last stroke created in the workspace.

5. Now, bring this stroke into the workspace by dragging-and-dropping the custom brush's picon from the bin into the workspace. By doing this, you are dropping a stroke into the workspace that has the same size and shape that the original stroke had before it was saved, but the stroke's position in the workspace depends on where you drop the stroke.

You see the stroke in the workspace. Note that it has the same size and shape that the original stroke had before it was saved.

The following figure illustrates a custom brush stroke that was dragged-and-dropped from a bin into the workspace.

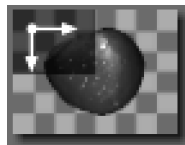


The Stroke in the Workspace

6. Delete the stroke by pushing **Delete** on your keyboard. Pushing **Delete** deletes the last stroke created in the workspace.

The custom brush can also be loaded as the current stroke. By doing this, you can draw this stroke into the workspace, giving you control over the stroke's size and shape. To load the custom brush as the current stroke in the Stroke Controls, follow these steps:

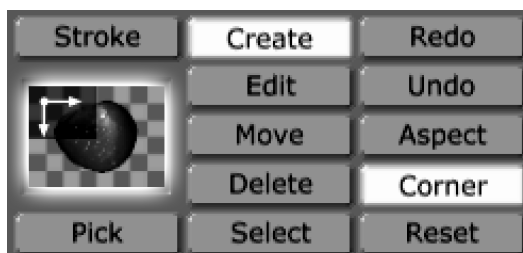
1. Locate the custom brush's picon (following figure) in the directory **GlobeCaster/Bins/Panam/Projects**.



The Custom Brush Stroke's Picon

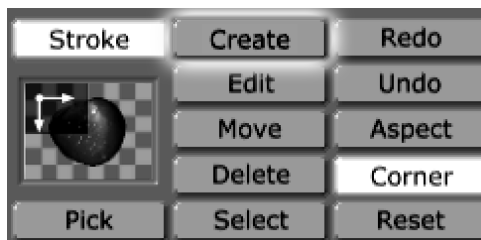
2. Load the custom brush as the current stroke by clicking on its picon in the bin.

You see the custom brush loaded as the current stroke in the Stroke Controls (following figure).



The Custom Brush Loaded as the Current Stroke

3. Make sure that the **Create** button (following figure) is selected in the Stroke Controls. If it isn't, click the button to select it.



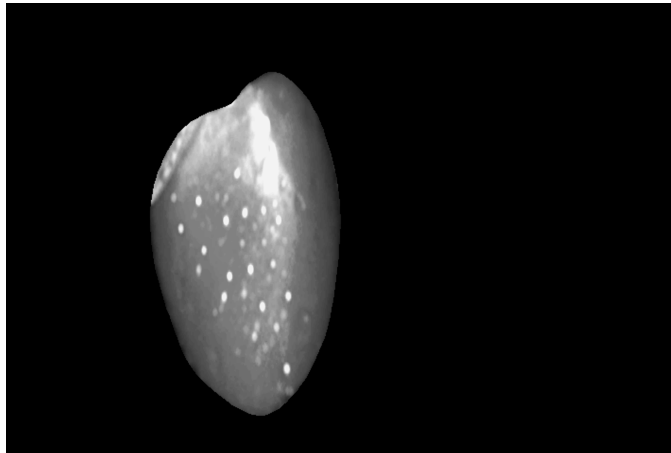
The Create Button

4. In the workspace, click-and-drag to draw a stroke with your custom brush. If you hold the **Shift** key on your keyboard as you click-and-drag, the stroke

you draw retains its original aspect ratio. That means it retains the shape of the original stroke before it was saved in a bin.

You see the stroke with an image of a cherry on it drawn in the workspace.

The following figure illustrates a custom brush stroke that was drawn into the workspace.



The Stroke Drawn in the Workspace

You now have a custom brush stroke that can be dragged-and-dropped or drawn in the workspace. By repeating the steps in this tutorial, you can create an unlimited number of your own custom brushes.

Now that you've created your own custom brush, it's time to move on to the next tutorial.

Creating An Alpha Map

In this tutorial, you will learn how to create an alpha map that can later be applied to a graphic to define its transparency values.

An alpha map is an image that defines the transparency of an object by its luma intensity. When this image is applied to a graphic, black values in the alpha map cause the graphic to be completely transparent, while white values in the alpha map cause the graphic to be completely opaque. Gray values in the alpha map cause the graphic to be partially transparent.

One use for an alpha map is to add transparency values to a graphic image so that the graphic blends from being completely opaque to completely transparent.

The alpha map you create in this tutorial is made up of an image that blends from white to black. That way, when the alpha map is applied to a graphic, you can see how each alpha map value affects the transparency of the graphic.

As you follow this tutorial, you will get a feel for how the **Color Palette/Gradient Editor** and **Texture Properties** panels function. You will also learn how to save a project as a still.

This tutorial is broken up into four parts. They are:

1. Preparing the workspace
2. Creating an alpha map
3. Saving the alpha map
4. Applying the alpha map to a graphic

Preparing The Workspace

Before you actually begin creating your alpha map, you need to first prepare the workspace. In this section of the tutorial, you will begin a new project in the workspace.

Follow these steps to prepare the workspace:

1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

Now that you've prepared your workspace, you are ready to create your alpha map. Move on to the next section of this tutorial.

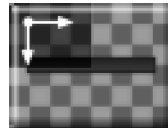
Creating An Alpha Map

In this section, you will create your alpha map. To do this, you will use the **Color Palette/Gradient Editor** to apply a gradient, which blends from black at the top to white on the bottom, to a stroke that fills the entire workspace. By doing this, you will create an alpha map that will cause a graphic to be transparent at its top and opaque at its bottom.

This stroke will be saved later in this tutorial as a still that can be applied to a graphic by using the functions of the **Texture Properties** panel.

To create your alpha map, follow these steps:

1. Locate the following stroke picon in the bin directory **GlobeCaster/Bins/Panam/Boxes**. It is the picon that has the solid blue horizontal box on it.



The Stroke Picon

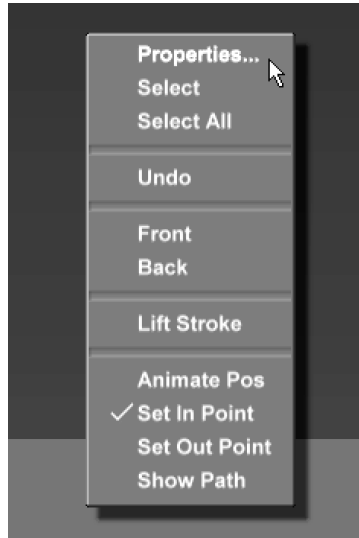
2. Load this picon as the current stroke by clicking on it.

You see this picon load in the Current Stroke picon window.

3. Draw a box that fills the entire workspace by clicking just outside the upper left corner of the workspace and dragging to just outside the lower right corner of the workspace.

You see a blue shape that fills the entire workspace.

4. In the workspace, bring up the **Stroke Properties** panel by right-clicking on the blue stroke and choosing **Properties** from the pop-up menu (following figure).



Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel in the upper left corner of your screen. From this panel, you can adjust the properties of a stroke, such as size and position. You can also animate any of a stroke's properties from this panel.

5. In the **Stroke Properties** panel, bring up the **Color Palette and Gradient Editor** panel by clicking the **Ink Settings** button (following figure).



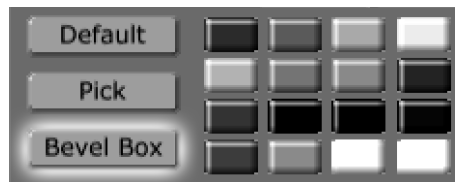
The Ink Settings Button

You see the **Color Palette and Gradient Editor** panel (following figure) just below the **Stroke Properties** panel. For additional information on using the **Color Palette and Gradient Editor** panel, see “Color Palette And Gradient Editor Panel” on page 99.

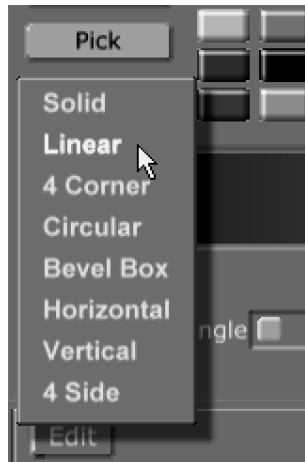


The Color Palette and Gradient Editor Panel

6. In the **Color Palette and Gradient Editor** panel, change the gradient type of your stroke to a linear blend by clicking the **Gradient Type** button (following figure) and choosing **Linear** from the pop-up menu (following figure). This pop-up menu offers a variety of gradients that can be applied to a stroke, including a bevel box gradient.



The Gradient Type Button



Choosing Linear from the Pop-Up Menu

In the workspace, you see a gradient applied to your stroke. The gradient blends from a dark blue at the right side of the workspace to a lighter blue at the left side of the workspace.

7. In the **Color Palette and Gradient Editor** panel, change the angle of the blend by selecting the angle value (following figure), typing in **90**, and pushing **Enter** on your keyboard. This value could also be changed by clicking and dragging the Angle slider to the left until the value was 90.



The Angle Value

The angle value is a degree value for the gradient. By typing in 90 for the value, you told the gradient's angle to change to 90 degrees. The gradient now blends from top to bottom, instead of from right to left.

In the workspace, you see the new angle value applied to your stroke. The gradient now blends from a dark blue at the bottom of the workspace to a lighter blue at the top of the workspace.

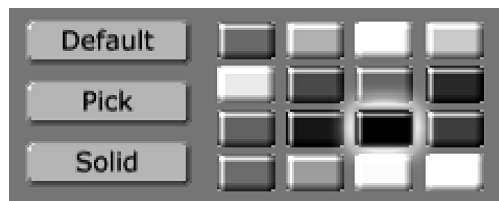
8. In the **Color Palette and Gradient Editor** panel, click on the right color dot (following figure) in the gradient editor once so that the line through it turns white. Doing this selects that color dot so that its color can be edited or changed.



The Color Dot in the Gradient Editor

When the line through the color dot is white, you can adjust the color for that color dot. By adjusting the colors this way, you are changing the colors in the gradient for your stroke.

9. In the **Color Palette and Gradient Editor** panel, click on the black mini picon (following figure). This adds the color black to your gradient.



The Black Mini Picon

In the gradient editor, you see the gradient blend from blue on the left to black on the right.

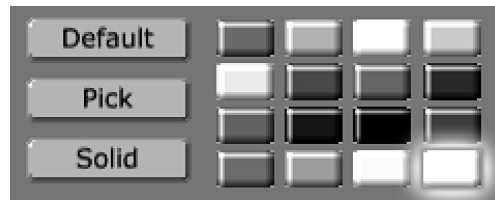
In the workspace, you see the gradient applied to your stroke blend from blue at the bottom of the workspace to black at the top of the workspace.

10. In the **Color Palette and Gradient Editor** panel, click on the left color dot (following figure) in the gradient editor once so that the line through it turns white. Doing this selects that color dot so that its color can be edited or changed.



The Color Dot in the Gradient Editor

11. In the **Color Palette and Gradient Editor** panel, click on the white mini picon (following figure). This adds the color white to your gradient.



The White Mini Picon

In the gradient editor, you see the gradient blend from white on the left to black on the right.

In the workspace, you see the gradient applied to your stroke blend from white at the bottom of the workspace to black at the top of the workspace.

12. In the **Color Palette and Gradient Editor** panel, add another color dot to the gradient editor by clicking-and-dragging a black mini-picon into the gradient editor near the right side.

The following figure illustrates what your gradient editor should now look like. If the color dot isn't quite in the right spot, you can click-and-drag a color dot right or left to change its position in the Gradient Editor.



The Gradient Editor

By adding another color dot, you are adding another color to your gradient. This is how you create a gradient that has multiple blends in it. Since you added another black to your gradient, your gradient now transitions from white at the bottom of the workspace to a thick band of black at the top of the workspace.

The following figure illustrates the gradient applied to your stroke in the workspace. This is what your alpha map will look like when you save it.



The Gradient Applied to a Stroke

13. Close the **Color Palette and Gradient Editor** and **Stroke Properties** panels by clicking the **X** button in the upper right corner of each panel.

Now that you've created your alpha map, you are ready to save this project. To do this, move ahead to the next section of this tutorial.

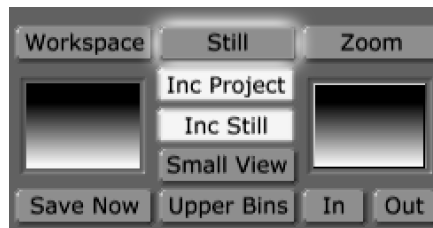
Saving The Alpha Map

In this section of the tutorial, you will save the stroke with the gradient you created as a still. By saving it as a still, you can apply it as an alpha map to a graphic in the **Texture Properties** panel.

By following the steps in this section, you will learn how to save any Panamation project as a still.

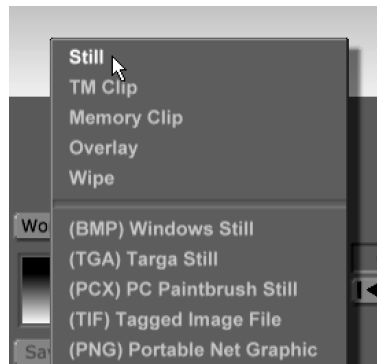
Follow these steps to save your alpha map as a still:

1. In the **Workspace Controls**, check to make sure that the file type is set to **Still** (following figure). This is the default setting for how a file is saved.



File Type Set at Still

If it isn't set to **Still**, click the **File Type** button (the button directly to the right of the **Workspace** button) and choose **Still** from the pop-up menu (following figure). In this menu, the first file types are formats that are native to GlobeCaster. The others are formats for other programs.



Choosing Still from the Pop-Up Menu

2. Click-and-drag the workspace picon (following figure) into the bin **GlobeCaster/Bins/Panam/Projects**. By dropping the picon into this bin, it will be easier for you to find it when you use it later in this tutorial.

Be sure to save this project, as you will use it later in this tutorial.



The Workspace Picon

You see the following picon in the bin **GlobeCaster/Bins/Panam/Projects**.



The Saved Alpha Map Still Picon

The alpha map you created can now be applied to any graphic by using the functions of the **Texture Properties** panel. To do this, continue on to the next section of this tutorial.

Applying The Alpha Map To A Graphic

In this section of the tutorial, you will apply the alpha map you created to a graphic. You will also get a feel for how to use the **Texture Properties** panel to apply a texture map to a graphic.

The **Texture Properties** panel can use any still, such as the one you just created, to set the transparency values for a graphic or stroke. This means that you can use any still picture, such as a picture of the White House, as an alpha map.

Follow these steps to apply your alpha map to a graphic:

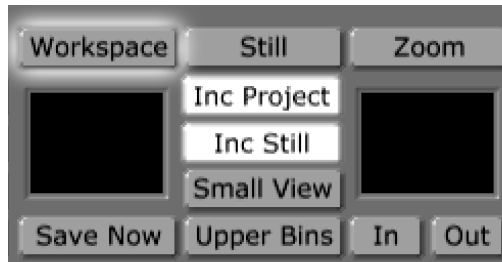
1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



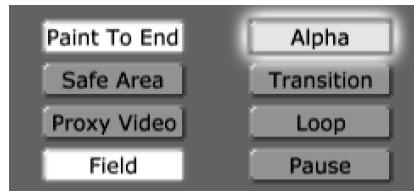
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel you can affect how the workspace is displayed. See “Workspace Properties Panel” on page 182 for more information about using this panel.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on.



The Alpha Button

This makes the background of the layer transparent. That way, it is easier to identify how the alpha map affects the transparency of a graphic.

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the screen.
5. Locate the following still picon in the bin directory **GlobeCaster/Bins/Stills/Sampler**. It is the picon with clouds on it.

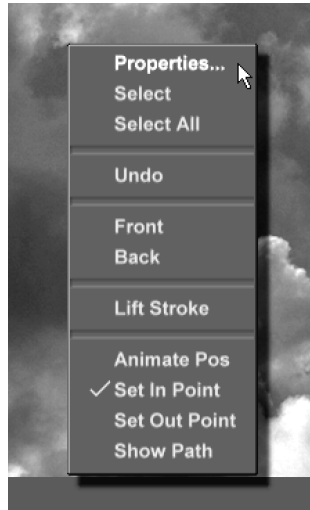


The Clouds Still Picon

6. Load this still into the workspace by double-clicking its picon.

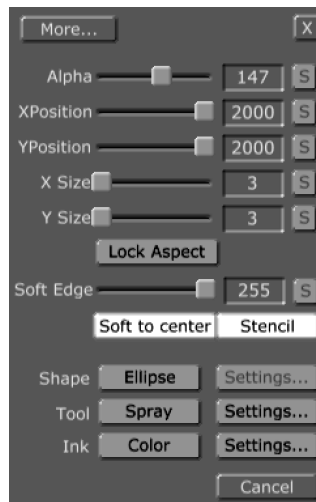
You see the image of the clouds fill the workspace.

7. Bring up the **Texture Properties** panel for the cloud graphic stroke (remember all objects in the Panamation workspace are strokes). To bring up the panel:
 - a. Bring up the **Stroke Properties** panel for the clouds still by right-clicking in the workspace and choosing **Properties** from the pop-up menu (following figure).



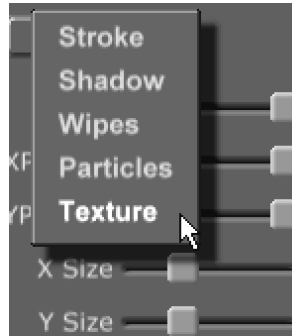
Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of the screen.



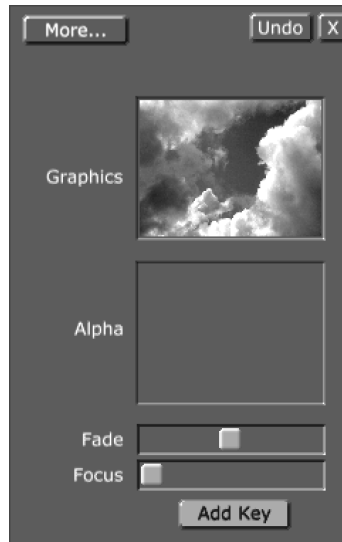
The Stroke Properties Panel

- b. Bring up the **Texture Properties** panel by clicking on the **More** button in the upper right corner of the **Stroke Properties** panel and choosing **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in place of the **Stroke Properties** panel. From this panel, you can add an alpha map or graphic to a stroke or access the keyer panels in Panamation. See “Texture Properties Panel” on page 124 for more information about using this panel.



The Texture Properties Panel

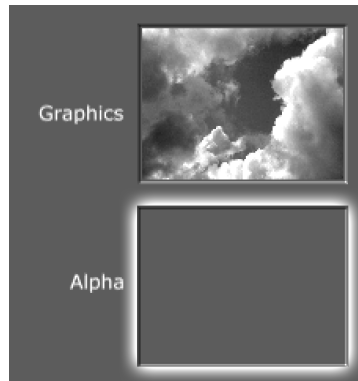
In the **Texture Properties** panel, note the cloud graphic in the Graphics window. This means that the cloud graphic is applied to the stroke in the workspace. If you wish to change this graphic, drag-and-drop a different graphic into this window.

8. Locate the following picon in the bin directory **GlobeCaster/Bins/Panam/Projects**. This is the picon for the alpha map you created earlier in this tutorial.



The Alpha Map Still Picon

9. Load the alpha map into the **Alpha** window in the **Texture Properties** panel (following figure) by clicking-and-dragging the picon from the bin into the **Alpha** window.



The Alpha Window in the Texture Properties Panel

You see that the **Fade** slider in the **Texture Properties** panel is set in the middle.

In the workspace, you see that your cloud graphic blends from opaque at the bottom of the workspace to being completely transparent at the top of the workspace (following figure).



The Cloud Graphic with the Alpha Map Applied

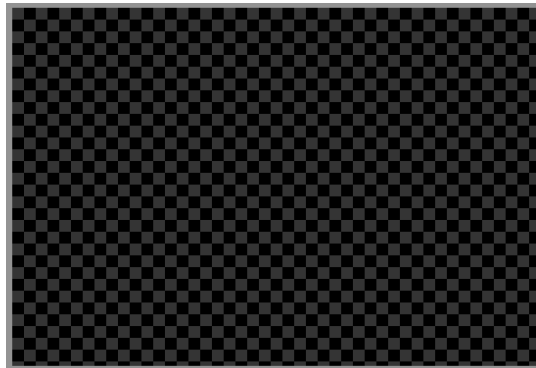
10. In the **Texture Properties** panel, adjust the transparency of the alpha map by clicking and dragging the **Fade** slider (following figure) right or left.



The Fade Slider

The further left you drag the slider, the more transparent the graphic in the workspace becomes. If the slider is dragged all the way to the left, the graphic is completely transparent.

The following figure illustrates the graphic in the workspace with the **Fade** slider all the way to the left.



Completely Transparent Graphic

The further right you drag the slider, the more opaque the graphic in the workspace becomes. If the slider is dragged all the way to the right, the graphic is completely opaque.

The following figure illustrates the graphic in the workspace with the **Fade** slider all the way to the right.



Completely Opaque Graphic

11. Close the **Texture Properties** panel by clicking the **X** button in the upper right corner of the panel.

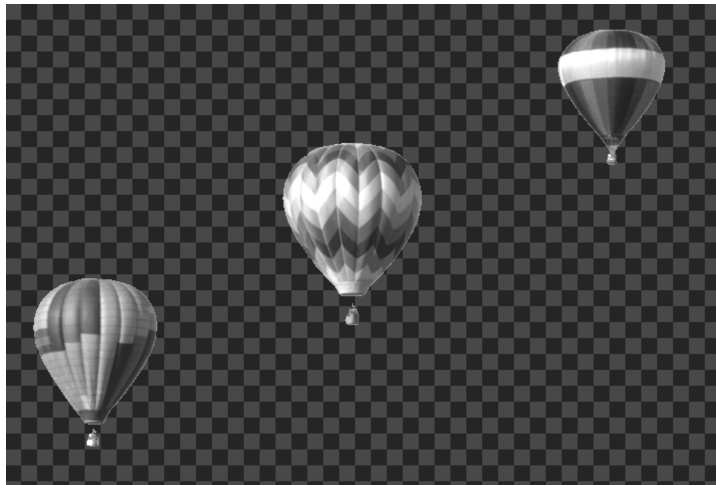
In this tutorial, you learned how to create an alpha map and applied that alpha map to a graphic. You now have a feel for how the **Color Palette/Gradient Editor** and **Texture Properties** panels function. Using these skills, you can create an unlimited number of custom alpha maps.

Using Panamation's Keyer Panels

There are times when you are working with Panamation that you will want to remove a specific color or luminosity value from a graphic. You may want to change a sunny blue sky in a picture of a landscape to a cloudy sky. You can use one of the keyer panels to “remove” the blue of the sunny sky, then replace it with the cloudy sky.

In Panamation, you have a choice of three different keyer panels. Each keyer works differently to key out colors in a graphic. In this tutorial, you will use these panels to remove colors and values from two different graphics. By doing this, you will get a feel for how to use these panels.

The following figure illustrates a still whose background was keyed out using one of Panamation's keyer panels.



Still with Background Keyed Out

This tutorial is broken up into three sections. These sections are:

1. Using the LumaKey panel
2. Using the ChromaKey panel
3. Using the ChromaKey2 panel

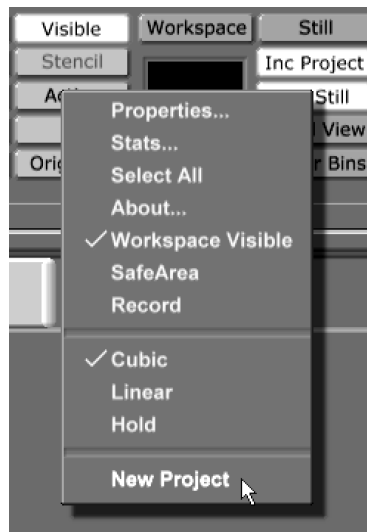
Using The LumaKey Panel

With the **LumaKey** panel, you can key out the luminosity values in a graphic. That means that you can key out the lightest or darkest areas in a graphic.

To get a feel for how this panel works, in this section of the tutorial you will first key out the darkest values in a still, then key out the lightest values in that still.

To use this panel to key a color out of a graphic, follow these steps:

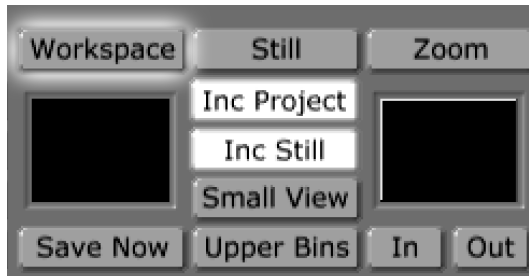
1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



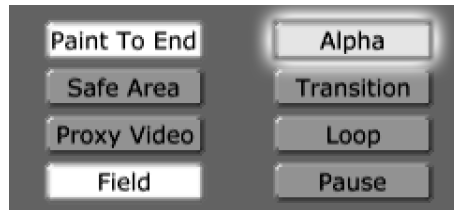
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can change how your project is displayed in the workspace. For more information on how to use this panel, see “Workspace Properties Panel” on page 182.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on.



The Alpha Button

This makes the background of the layer transparent. This makes it easier to see the areas you key out of the graphics.

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the panel.
5. Locate the following still picon in the bin directory **GlobeCaster/Bins/Stills/Sampler**. It is the picon with the silhouette of a lighthouse on it.

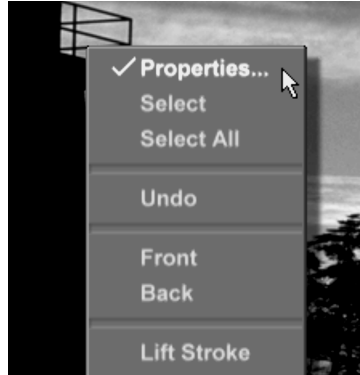


The Lighthouse Still Picon

6. Load this still into the workspace by double-clicking its picon.

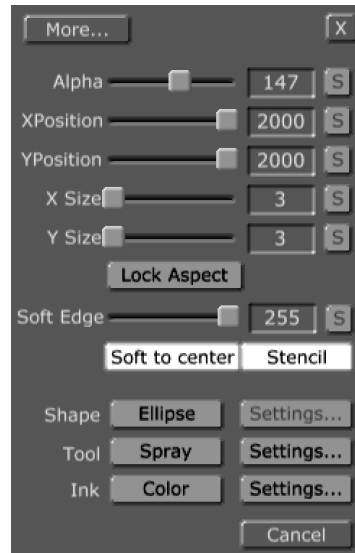
You see the lighthouse still fill the entire workspace. Remember that any object in the workspace is a stroke.

7. Bring up the **LumaKey** panel for this stroke. Follow these steps to bring up this panel:
 - a. Bring up the **Stroke Properties** panel for the lighthouse stroke by right-clicking on it in the workspace and choosing **Properties** from the pop-up menu (following figure).



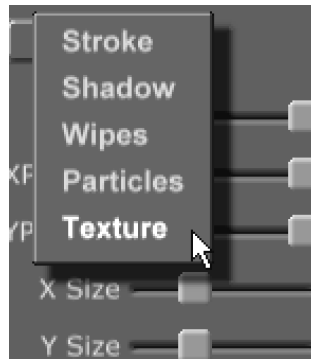
Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen.



The Stroke Properties Panel

- b. In the **Stroke Properties** panel, bring up the **Texture Properties** panel by clicking the **More** button in the upper left corner and choosing **Texture** from the pop-up menu (following picture).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in the upper left corner of your screen, in place of the **Stroke Properties** panel. From this panel, you can access the keyer panels. For more information on using the **Texture Properties** panel, see “Texture Properties Panel” on page 124.



The Texture Properties Panel

- c. Bring up the **LumaKey** panel by clicking the **Add Key** button (following figure) and choosing **LumaKey** from the pop-up menu (following figure).

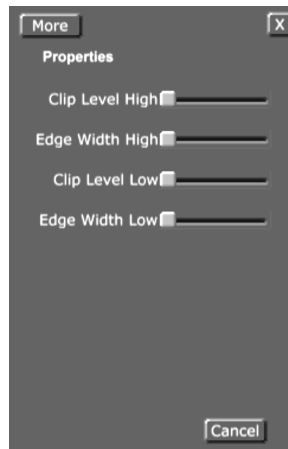


The Add Key Button



Choosing LumaKey from the Pop-Up Menu

You see the **LumaKey** panel in the upper left corner of the screen in place of the **Texture Properties** panel. For additional information on using the **LumaKey** panel, see “LumaKey Panel” on page 131.



The LumaKey Panel

In the workspace, you see your lighthouse stroke with some of the dark areas keyed out (following figure).



The Lighthouse Stroke with Areas Keyed Out

8. In the **LumaKey** panel, click-and-drag the **Clip Level High** slider (following figure) to the right. Stop dragging the slider when all of the black of the silhouette is keyed out.



The Clip Level High Slider

By clicking-and-dragging the **Clip Level High** slider, you are adjusting the luminosity value that is keyed out. The darkest areas are keyed out first, followed by the middle values, and then lightest areas in the stroke. If you drag the slider all the way to the right, the entire image is keyed out.

The following figure illustrates what the lighthouse stroke should now look like in the workspace.



The Keyed Image in the Workspace

9. In the **LumaKey** panel, click-and-drag the **Clip Level High** slider all the way to the right. By doing this, you can now set the key to remove the lightest values in the image.

In the workspace, you see the entire image keyed out.

10. In the **LumaKey** panel, click and drag the **Edge Width Low** slider to the right. As you drag the slider to the right, notice that the darkest areas of the image return. Stop dragging this slider when the workspace looks like the following figure. This is how you key out the lightest values in an image.



The Edge Width Low Slider



The Workspace with the Lightest Values Keyed Out

TIP Adjusting the **Clip Level Low** slider sharpens the edge of a key. For this project, adjusting this slider is not necessary since you have already achieved a sharp edge for the key.

11. Close the **LumaKey** panel by clicking the **X** button in the upper right corner of the panel.

Now that you keyed out the luminosity values of an image using the LumaKey panel, move on to the next section of the tutorial.

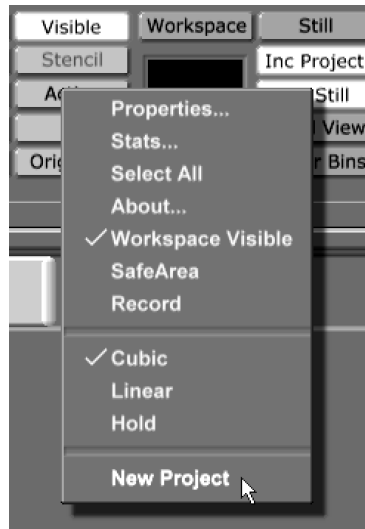
Using The ChromaKey Panel

With the **ChromaKey** panel, you can choose a specific color to be keyed out of your image. Once this color is selected, you can adjust that key's clip level.

In this section of the tutorial, you will use the **ChromaKey** panel to key out the blue sky from an image. By doing this, you will get a feel for how this panel works. See “ChromaKey Panel” on page 137 for additional information on using this panel.

To use this panel to key a color out of a graphic, follow these steps:

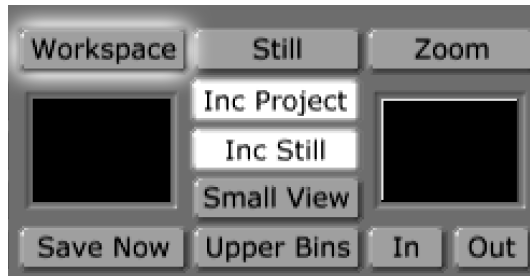
1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

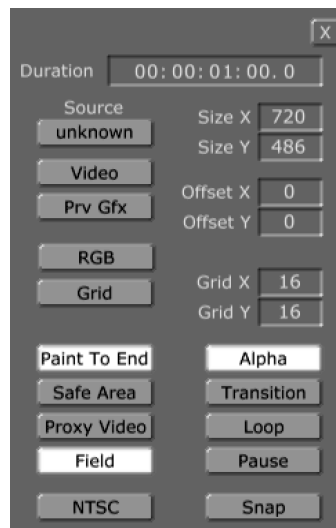
Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



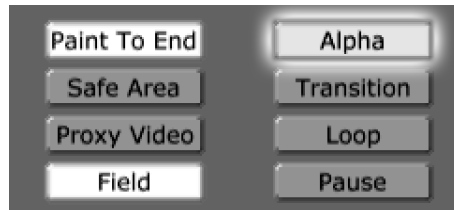
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can change how your project is displayed in the workspace.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on, if it isn't already selected.



The Alpha Button

This makes the background of the layer transparent. This makes it easier to see the areas you key out of the graphics.

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the panel.
5. Locate the following still picon in the bin directory **GlobeCaster/Bins/Stills/Sampler**. It is the picon with three balloons on it.

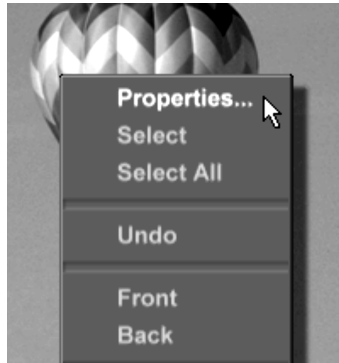


The Balloons Still Picon

6. Load this still into the workspace by double-clicking its picon.

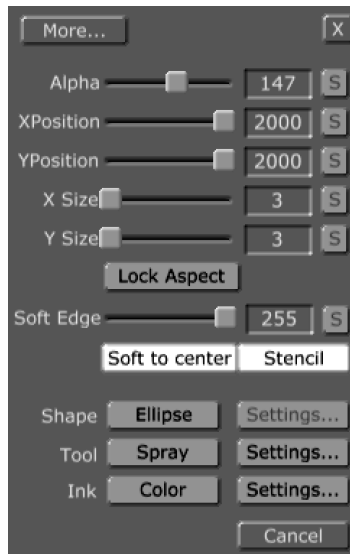
You see the three balloons still fill the entire workspace. Remember that any object in the workspace is a stroke.

7. Bring up the **ChromaKey** panel for this stroke. Follow these steps to bring up this panel:
 - a. Bring up the **Stroke Properties** panel for the three balloons stroke by right-clicking on it in the workspace and choosing **Properties** from the pop-up menu (following figure).



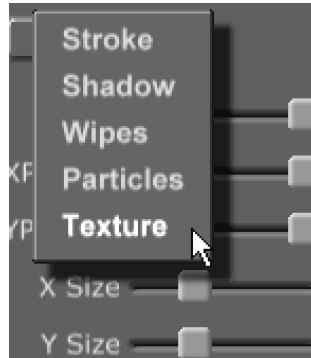
Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen.



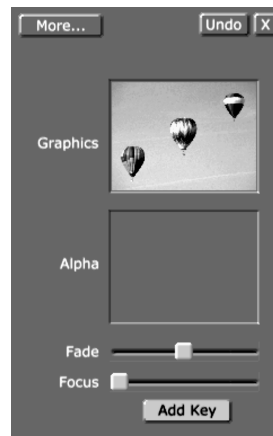
The Stroke Properties Panel

- b. In the **Stroke Properties** panel, bring up the **Texture Properties** panel by clicking the **More** button in the upper left corner and choosing **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in the upper left corner of your screen, in place of the **Stroke Properties** panel. From this panel, you can access the keyer panels.



The Texture Properties Panel

- c. Bring up the **ChromaKey** panel by clicking the **Add Key** button (following figure) and choosing **ChromaKey** from the pop-up menu (following figure).

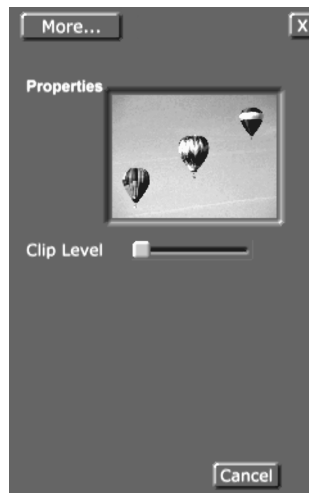


The Add Key Button



Choosing ChromaKey from the Pop-Up Menu

You see the **ChromaKey** panel in the upper left corner of the screen, in place of the **Texture Properties** panel. For more information on using the ChromaKey panel, see “ChromaKey Panel” on page 137.



The ChromaKey Panel

8. In the **ChromaKey** panel, select the color you want to key out (in this case it is blue) by clicking on that color in the picon for the three balloons (following figure).



Selecting a Color from the Picon

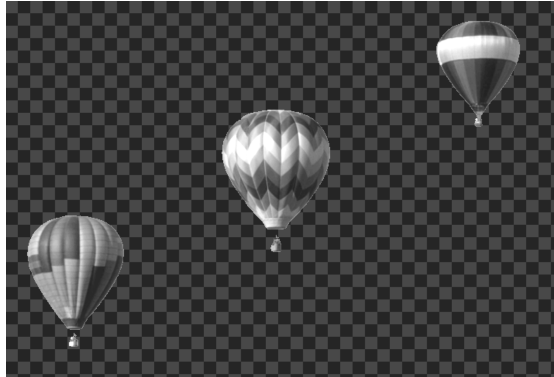
In the workspace, your cloud stroke is unchanged. Before the blue is keyed out, you need to adjust the Clip Level to set how much blue is keyed out.

9. In the **ChromaKey** panel, adjust how much of the color blue is keyed out by clicking-and-dragging the **Clip Level** slider (following figure) to the right until all of the blue of the sky is keyed out.



The Clip Level Slider

The following figure illustrates what your three balloons stroke should look like in the workspace.



The Workspace with Blue Keyed out of the Image

10. Close the **ChromaKey** panel by clicking the **X** button in the upper right corner of the panel.

You now know how to key out a specific color using the **ChromaKey** panel. To key out a specific color in your own graphic, repeat these steps using your graphic.

Using The ChromaKey2 Panel

With the **ChromaKey2** panel, you can choose a specific color or colors to be keyed out of your image. Once colors are selected, you can adjust the YUV levels to clean up the key. Adjusting these levels gives more control over the key than the ChromaKey panel. The Y Range level affects the luminance value of the chroma key. The U Range and V Range levels affect the chrominance value of the chroma key. By using this panel, you can key out specific colors from an image.

In this section of the tutorial, you will use the **ChromaKey2** panel to key out the blue sky from an image. By doing this, you will get a feel for how this panel works. For additional information on using this panel, see “ChromaKey2 Panel” on page 141.

To use this panel to key a color out of a graphic, follow these steps:

1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.

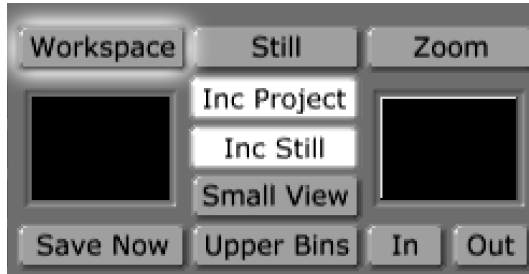


Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if

you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



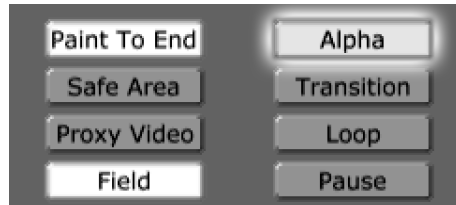
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can affect how your project is displayed in the workspace. See “Workspace Properties Panel” on page 182 for more information about using this panel.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on, if it isn't already selected.



The Alpha Button

This makes the background of the layer transparent. This makes it easier to see the areas you key out of the graphics.

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the panel.

5. Locate the following still picon in the bin directory **GlobeCaster/Bins/Stills/Sampler**. It is the picon with three balloons on it.

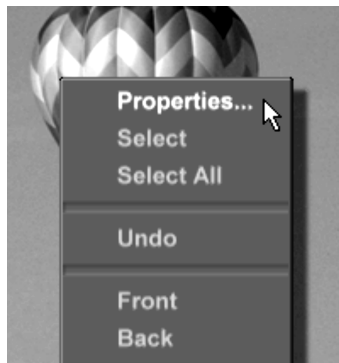


The Balloons Still Picon

6. Load this still into the workspace by double-clicking its picon.

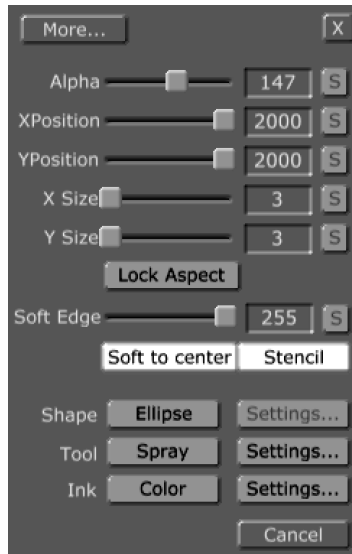
You see the three balloons still fill the entire workspace. Remember that any object in the workspace is a stroke.

7. Bring up the **ChromaKey2** panel for this stroke. Follow these steps to bring up this panel:
 - a. Bring up the **Stroke Properties** panel for the three balloons stroke by right-clicking on it in the workspace and choosing **Properties** from the pop-up menu (following figure).



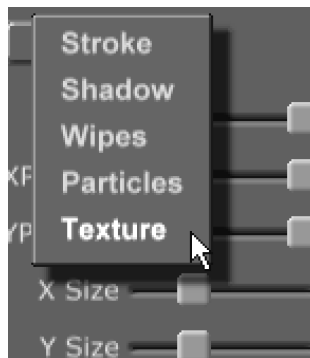
Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen.



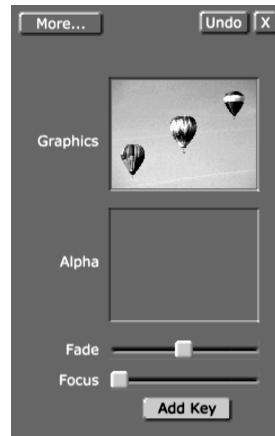
The Stroke Properties Panel

- b. In the **Stroke Properties** panel, bring up the **Texture Properties** panel by clicking the **More** button in the upper left corner and choosing **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in the upper left corner of your screen, in place of the **Stroke Properties** panel. From this panel, you can access the keyer panels.



The Texture Properties Panel

- c. Bring up the **ChromaKey2** panel by clicking the **Add Key** button (following figure) and choosing **ChromaKey2** from the pop-up menu (following figure).

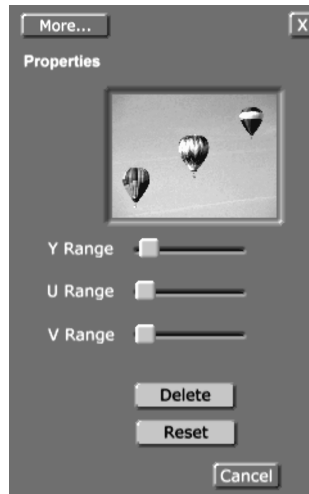


The Add Key Button



Choosing ChromaKey2 from the Pop-Up Menu

You see the **ChromaKey2** panel in the upper left corner of the screen in place of the **Texture Properties** panel. For additional information about using the **ChromaKey2** panel, see “ChromaKey2 Panel” on page 141.

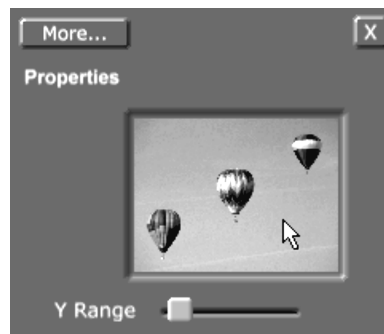


The ChromaKey2 Panel

8. In the **ChromaKey2** panel, select the color you want to key out (in this case it is the color blue) by clicking on that color in the picon for the three balloons (following figure).

NOTE

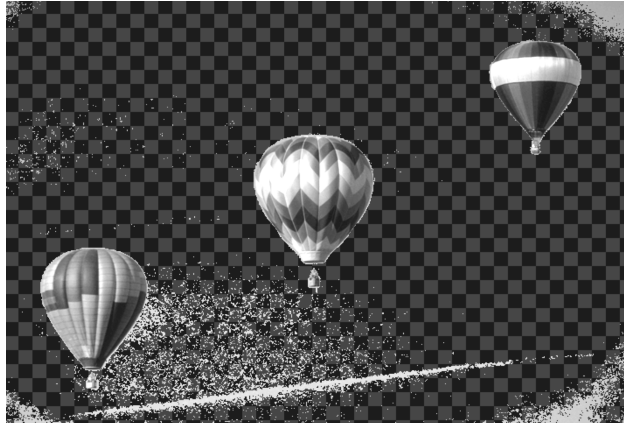
In the **ChromaKey2** panel, multiple colors can be keyed out. To key out multiple colors, click again in the picon for the image. This selects an additional color to be keyed out.



Selecting a Color from the Picon

In the workspace, you see a dotted pattern in the blue areas. This indicates that blue was selected as the color to be keyed out. Next, you'll expand how much blue is keyed out.

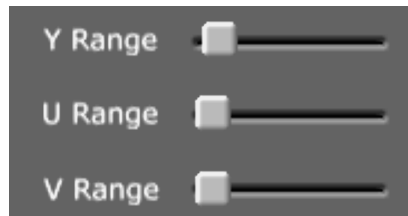
The following figure illustrates what your workspace should look like.



The Workspace with some of the Blue of the Still Keyed Out

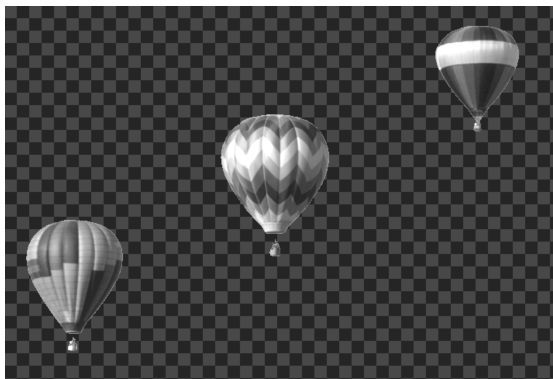
9. In the **ChromaKey2** panel, clean up the key by adjusting the **Y Range**, **U Range**, and **V Range** sliders (following figure).

Adjusting the **Y Range** slider adjusts the luminance value of the key. Adjusting the **U Range** and **V Range** adjusts the chrominance value of the key. Adjusting these values cleans up the key. Adjust these until the image in your workspace looks like the following figure.



The Y Range, U Range, and V Range Sliders

The following figure illustrates what the image should look like in the workspace with the blue keyed out.



The Workspace with Blue Keyed out of the Image

10. Close the **ChromaKey2** panel by clicking the **X** button in the upper right corner of the panel.

You now know how to key out colors using the **ChromaKey2** panel. To key out a specific color in your own graphic, repeat these steps using your graphic. Continue on to the next tutorial to learn about more of Panamation's functions.

Using The Stencil Function To Create A Mask

A mask is a common element that is created when using a paint program such as Panamation. A mask is used when you want to create strokes that stay within a specific shape, such as a circle or square. Sure, you could carefully draw a stroke in the shape of a circle, but it would be much easier to create a mask in the shape of a circle and paint your stroke over it.

In this tutorial, you will use Panamation's stencil function to create a mask. By doing this, you will learn to create a stencil layer, use the stencil by drawing an object in it, and how to adjust the stencil once it is created.

The following figure illustrates the mask created in this tutorial with a still of a trumpet drawn over it.



The Stencil Mask in the Workspace

This tutorial is broken up into three sections. These sections are:

1. Preparing the workspace
2. Creating a mask
3. Working with the mask

Preparing The Workspace

Before you actually begin creating a stencil mask, you need to first prepare the workspace. By doing this, you tell Panamation to start a new project in the workspace.

Follow these steps to prepare the workspace:

1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

Creating A Mask

In this section of the tutorial, you will draw a stroke, which will become your stencil, in the workspace.

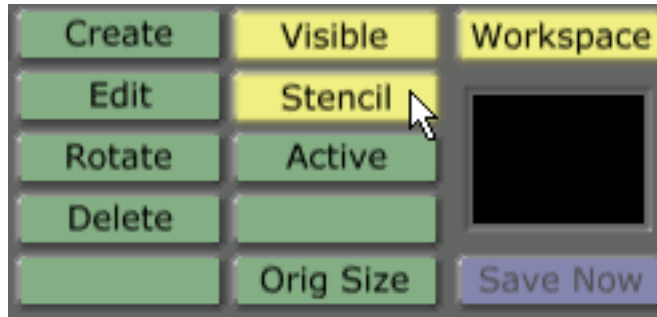
To create a mask using the stencil functions, follow these steps:

1. Draw a stroke on any layer. You can do this with any of Panamation's included stroke brushes, or you can create your own custom stroke.

NOTE

To use Layer 1 as a stencil layer, alpha for the layer must be turned on in the Workspace Properties panel.

2. Select the **Stencil** button in the **Layer Controls** on the **Toolbar** (following figure).



The Stencil Button in the Layer Controls

3. Draw a second stroke in the workspace. Again, you can use any of Panamation's included stroke brushes, or create your own.

Once the **Stencil** button is selected, additional strokes drawn in the layer only appear within the boundaries of the original stroke.

In the workspace, you see the stroke you just drew appear only within the boundaries of the original stroke.

4. Locate the following stroke picon in the bin directory **GlobeCaster/Bins/Panam/Sampler**. It is the stroke picon with the orange squarcle, or box with rounded corners, on it.



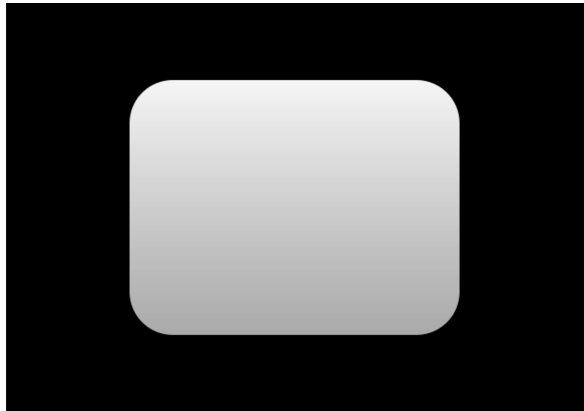
The Stroke Picon

5. Load this picon as the current stroke by clicking it.

You see this picon load in the Current Stroke Picon window in the Stroke Controls.

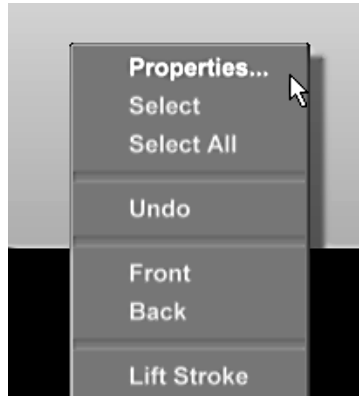
6. In the layer you just created, draw a squarcle in the center of the workspace by clicking-and-dragging through the workspace.

You see a squarcle in the center of the workspace (following figure).



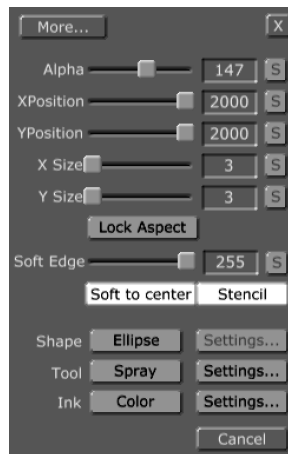
The Box in the Workspace

7. Bring up the **Stroke Properties** panel for the stroke by right-clicking on the stroke in the workspace and choosing **Properties** from the pop-up menu (following figure).



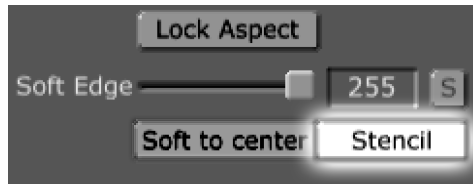
Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen. From this panel, you can change the properties of a stroke, such as size and position in the workspace, and animate those properties. See “Stroke Properties Panel” on page 51 for more information on using this panel.



The Stroke Properties Panel

8. In the **Stroke Properties** panel, make sure that the **Stencil** button is selected (following figure).



The Stencil Button

If this button isn't selected, click it. The **Stencil** button must be selected to make a stroke a stencil.

9. Close the **Stroke Properties** panel by clicking the **X** button in the upper right corner of the panel.
10. In the Layer Controls, click the **Stencil** button (following figure). By clicking this button, you are making that layer a stencil layer and your stencil stroke now acts as a mask. If you don't do this, you cannot create a stencil, and your stroke behaves like a normal stroke.



The Stencil Button

You now have a stencil that can be used as a mask. Continue to the next section of the tutorial to learn how to use this mask.

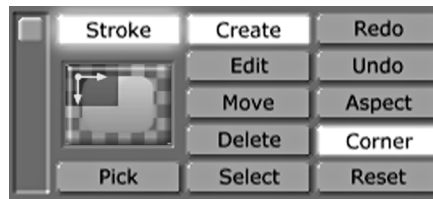
Working With The Mask

In this section of the tutorial, you will draw a stroke over your stencil mask to get a feel for how to work with stencils. You will also learn how to alter your stroke once it is applied to the stencil, and how to adjust the size of the stencil stroke.

By following this tutorial, you will learn how to apply a graphic stroke to any stencil mask. To do this, you will first apply a graphic still to a stroke, and then draw it in the workspace.

Follow these steps to work with your mask:

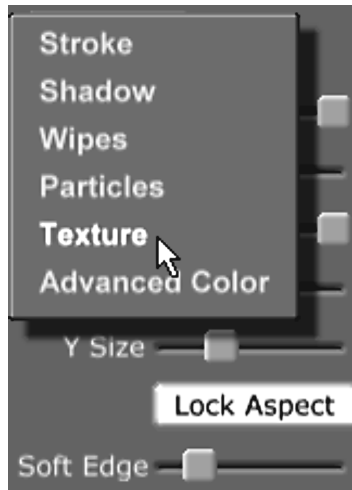
1. Bring up the **Texture Properties** panel for the current stroke in the Stroke Controls. To do this, follow these steps:
 - a. Bring up the **Stroke Properties** panel for the current stroke by clicking the **Stroke** button in the Stroke Controls (following figure).



The Stroke Button

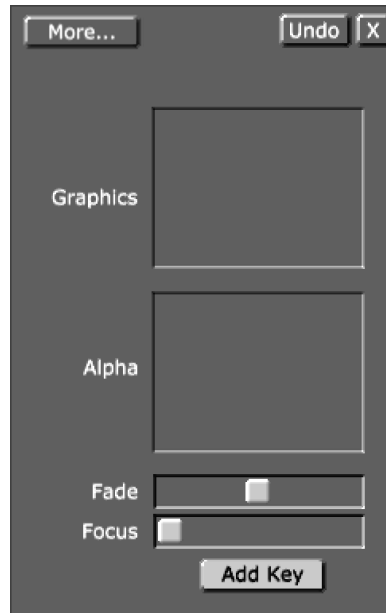
You see the **Stroke Properties** panel in the upper left corner of your screen. From this panel, you can access other panels, such as the **Texture Properties** panel.

- b. In the **Stroke Properties** panel, bring up the **Texture Properties** panel by clicking the **More** button in the upper left corner of the panel and choosing **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in place of the **Stroke Properties** panel. From this panel, you will apply a graphic to the current stroke. For additional information about the **Texture Properties** panel, see “Texture Properties Panel” on page 124.



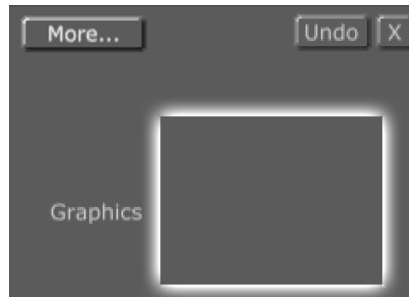
The Texture Properties panel

2. Locate the following still picon in the bin directory **GlobeCaster/Bins/Stills/Sampler**. It is the picon with the trumpet on it. This is the graphic you will apply to the current stroke.



The Still Picon

3. Click-and-drag the trumpet picon into the **Graphics** window (following figure) in the **Texture Properties** panel. By doing this, you are applying the trumpet graphic to the stroke, so that when you draw a stroke in the workspace, it is filled with the graphic.

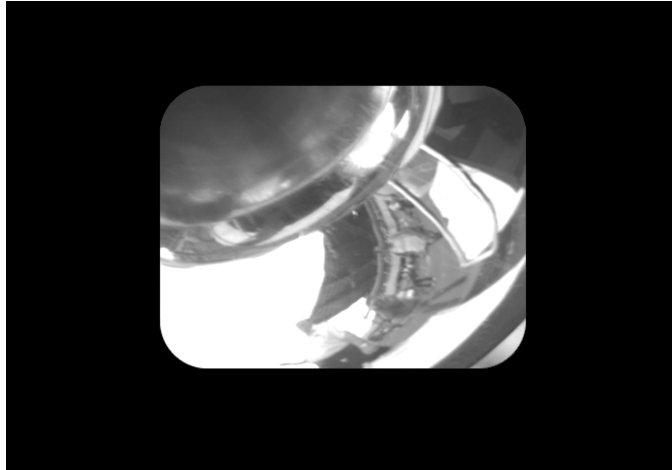


The Graphics Window

You see the trumpet still picon in the **Graphics** window.

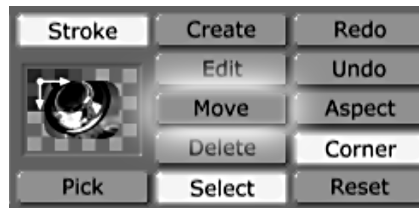
4. Close the **Texture Properties** panel by clicking the **X** button in the upper right corner of the panel.
5. Draw a stroke that fills the entire workspace by clicking just outside the upper left corner of the workspace and dragging to just outside the lower right corner.

In the workspace, you see the graphic (following figure). Note that only a section of the graphic shows up where the stencil stroke is. This is how a stencil mask works. If you draw this stroke in a layer without a mask, the entire still fills the workspace.



The Stroke in the Workspace

6. In the Stroke Controls, click the **Move** button (following figure). By clicking this button, you can select and move strokes around in the workspace.



The Move Button

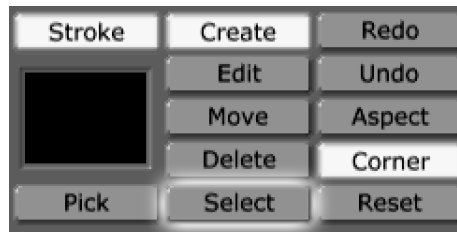
7. In the workspace, click in the middle of the stencil and drag the trumpet stroke around. You can also edit stencil strokes by clicking the **Edit** button instead of the **Move** button in the Stroke Controls.

Continue dragging the trumpet stroke until a section of the stencil stroke is exposed. When a section of a stencil stroke is exposed (following figure), you can adjust and edit the stencil stroke as you would any stroke.



The Strokes in the Workspace

8. Click the **Select** button (following figure) to select it. With this button selected, you can select any object in the workspace by clicking on the stroke.

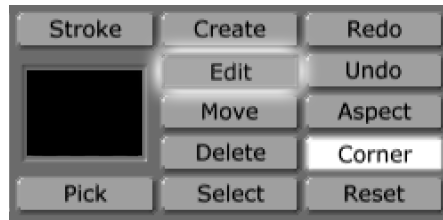


The Select Button

9. In the workspace, click in the area of the stencil stroke that isn't covered by the trumpet graphic

You see a bounding box around the stroke, indicating that it is selected.

10. In the Stroke Controls, click the **Edit** button (following figure). With this button selected, you can edit the size, shape, and position of a stroke by clicking on the stroke.



The Edit Button

In the workspace, you see edit points around the stroke (following figure). By clicking-and-dragging these edit points, you can scale the size of the stroke. This is how you edit a stencil stroke that is already created.



Edit Points around the Stencil Stroke

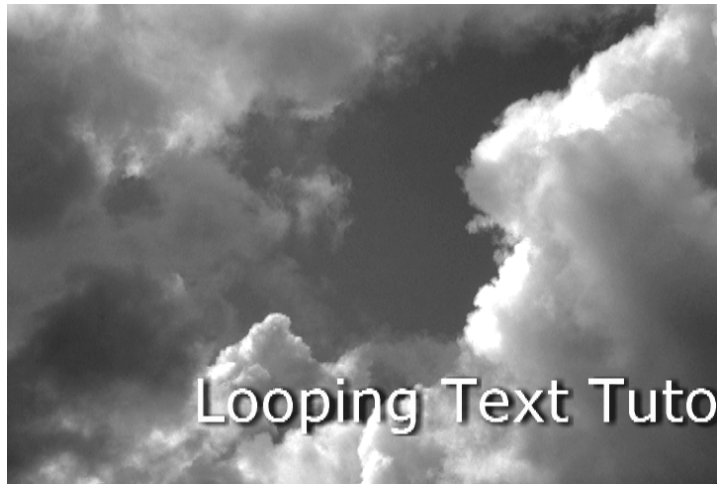
Now that you completed this tutorial, you know how to create a stencil mask. You can create this type of mask while working with any type of Panamation project by following these steps with your own strokes.

Creating A Looping Text Crawl

In this tutorial, you will create a looping crawl in Panamation that will repeatedly play back when the effect is run in Switcher. You may use this type of effect if you wish to have an important message, or even emergency information, continuously scroll across the bottom of your screen.

To create this effect, this tutorial takes you through the process of creating type with a shadow, animating that type, and saving the effect so that it will continuously loop when it is run in Switcher.

The following figure illustrates what the finished project looks like when run in Switcher.



The Finished Project Run in Switcher

This tutorial is broken up into four sections. These sections are:

1. Preparing the workspace
2. Creating a text stroke with shadow
3. Animating your text stroke
4. Saving your effect

Preparing The Workspace

Before you actually begin creating your text stroke with shadow, you need to first prepare the workspace. By doing this, you tell Panamation how to display the workspace, and how the effect will be displayed after you save it and run it in Switcher.

Follow these steps to prepare the workspace:

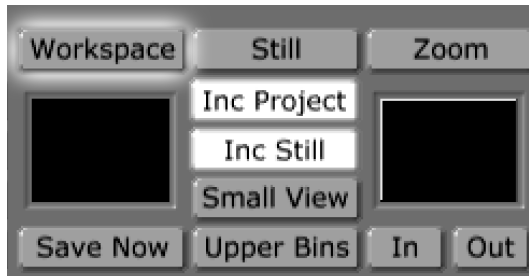
1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



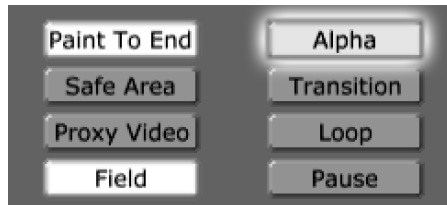
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can set the length of your effect, how it is displayed in the workspace, and how it acts when it is run in Switcher. For more information on using this panel, see “Workspace Properties Panel” on page 182.



The Workspace Properties panel

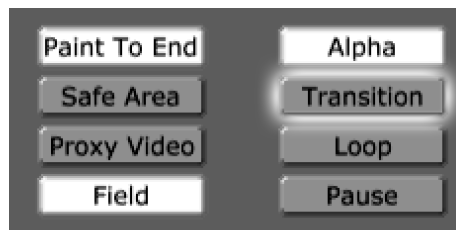
3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on. This makes the background of the layer transparent.



The Alpha Button

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

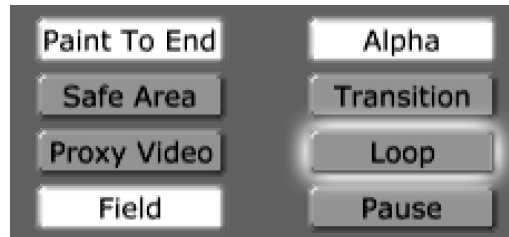
4. Deselect the Transition function by clicking on the **Transition** button (following figure). With **Transition** selected, a project is saved as a transition. Selecting this is necessary if you are creating an effect such as a wipe, but is not needed when creating an overlay, such as the one you will create in this tutorial.



The Transition Button

You see the **Transition** button turn blue, indicating that the function is turned off.

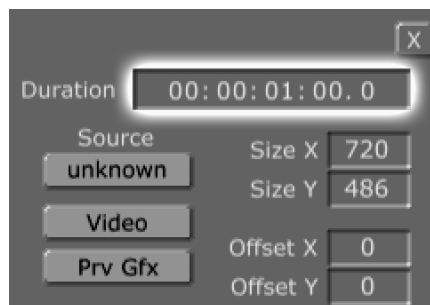
5. In the **Workspace Properties** panel, turn the Loop function on by clicking the **Loop** button (following figure). By turning the Loop function on, when the effect runs in Switcher it loops continuously until turned off. If the Loop function remains off, when the effect is run in Switcher, the text only crawls across the screen once.



The Loop Button

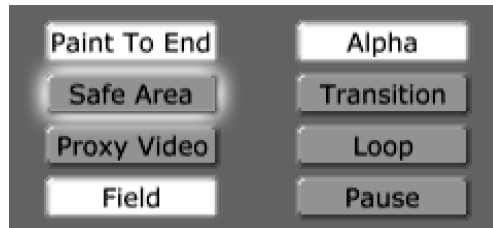
You see that the **Loop** button is selected, indicating that the Loop function is turned on.

6. In the **Workspace Properties** panel, change the duration of your effect from **1** second to **2** seconds. To do this:
 - a. Click on the **1** in the timecode (following figure). Timecode is in standard SMPTE format (HH:MM:SS:FF). That means that the 1 is the seconds value.



Timecode in the Workspace Properties Panel

- b. Type in the new value for the seconds, which is **2**.
 - c. Press **Enter** on your keyboard.
7. In the **Workspace Properties** panel, turn on the safe title area by clicking the **Safe Area** button.

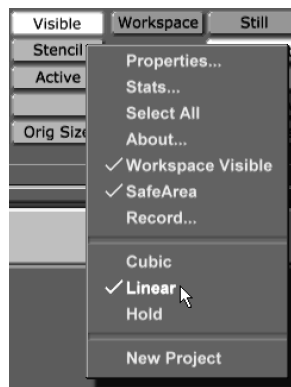


The Safe Area Button

You see the safe title area in the workspace. The boundaries show what is actually seen on a typical television. The inner border is called the Safe Title Area, and the outer color border is called the Safe Action Area. Everything within the Safe Title Area fits on any television screen.

By turning on this area, you ensure that the looping text you create is visible on any television screen.

8. Close the **Workspace Properties** panel by clicking the **X** in the upper right corner of the panel.
9. In the Workspace Controls, change the interpolation of the effect's motion by right-clicking the Workspace picon and choosing **Linear** from the pop-up menu (following figure).



Choosing Linear from the Pop-Up Menu

The interpolation of the effect's movement determines how the motion path of the stroke behaves when it is animated.

A cubic interpolation means that the animation steps between keyframes follow a curved path. If you select **Cubic** as the interpolation for this effect, when the effect crawls across the screen, it starts out at a slow pace, speeds up, and then slows down again as the effect ends.

A linear interpolation means that the animation steps between keyframes follow a straight path. By selecting **Linear** as the interpolation for this effect, when the effect crawls across the screen, it moves at a continuous rate of speed.

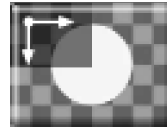
Now that you've prepared the workspace, you are ready to create your text with shadow.

Creating A Text Stroke With Shadow

With the workspace prepared, you can now create your text stroke with shadow. In this section of the tutorial, you will create a colored text stroke and then apply a shadow to it using the **Shadow Properties** panel.

To create your text stroke with shadow, follow these steps:

1. Locate the following picon for a stroke in the directory **GlobeCaster/Bins/Panam/Sampler**.

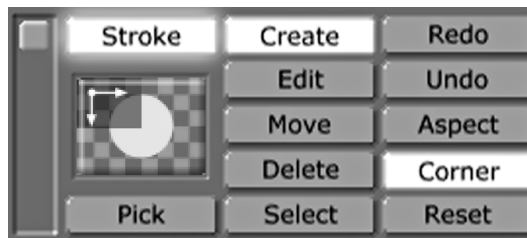


The Stroke Picon

2. Load this stroke as the current stroke by clicking on it.

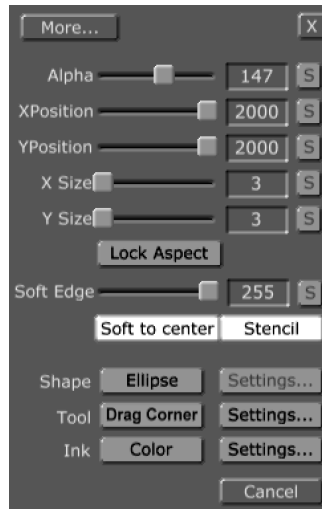
You see the picon in the Stroke Controls, indicating that it is loaded as the current stroke.

3. Bring up the **Stroke Properties** panel by clicking the **Stroke** button (following figure) in the Stroke Controls.



The Stroke Button

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen. From this panel, you can adjust the properties of a stroke, such as the X and Y position of the stroke or the type of stroke. You can also animate any of the stroke's properties from the **Stroke Properties** panel. For more information about using the Stroke Properties panel, see "Stroke Properties Panel" on page 51.



The Stroke Properties Panel

4. In the **Stroke Properties** panel, click on the **Soft Edge** slider (following figure) and drag it all the way to the left so that the Soft Edge value is **0**. You can also change this value by clicking on the numeric value, typing in a new value, and pushing **Enter** on your keyboard.



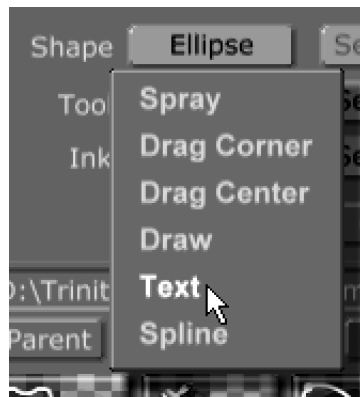
The Soft Edge Slider

By changing the **Soft Edge** value to **0**, you are changing the edge of the text you will create. If you type in a higher value, you get text that has a soft, blurred edge.

5. Click on the **Tool** button (following figure) and choose **Text** from the pop-up menu (following figure). This pop-up menu is where you set the shape of your stroke.



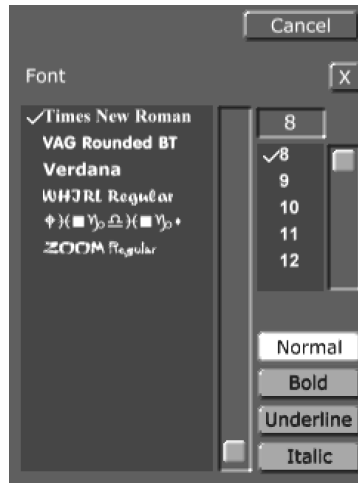
The Tool Button



Choosing Text from the Tool Pop-Up Menu

6. From the **Stroke Properties** panel, bring up the **Text Settings** panel by clicking on the **Settings** button to the right of the word **Tool**.

You see the **Text Settings** panel just below the **Stroke Properties** panel. The **Text Settings** panel is where you choose the font and size of your text stroke. See “Text Settings Panel” on page 75 for more information about using this panel.



The Text Settings Panel

7. In the **Text Settings** panel, change the font to **Verdana** by scrolling through the font list and clicking on the font name.

You see a check mark next to the word Verdana (following figure), indicating that the font was selected.



The Selected Font

8. In the **Text Settings** panel, change the font size to **72** by scrolling through the font sizes and clicking on the font size. The font size can also be changed by selecting the font size in the Font Size window (following figure), typing in a new font size, and pushing **Enter** on your keyboard.



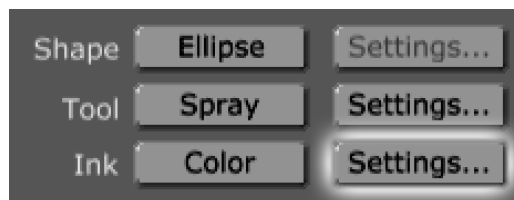
The Font Size Window

You see a check mark next to the font size **72** (following figure), indicating that the font size is selected.



The Selected Font Size

9. In the **Stroke Properties** panel, bring up the **Color Palette** by clicking the **Settings** button (following figure) to the right of the word **Ink**. If an ink other than the Color ink was selected, clicking the Settings button brings up the Settings panel for that ink.



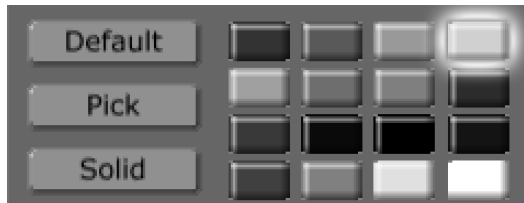
The Settings Button

You see the **Color Palette and Gradient Editor** panel (following figure) appear in place of the **Text Settings** panel. The **Color Palette and Gradient Editor** panel is where you change the color of a stroke or add a gradient to a stroke. For more information about using this panel, see “Color Palette And Gradient Editor Panel” on page 99.



The Color Palette

10. In the **Color Palette and Gradient Editor** panel, change the color of the text stroke to yellow by clicking on the yellow mini picon (following figure). This loads the color as the current color for the stroke. If you want to create your own custom color, you can adjust the sliders for the Red, Green, and Blue values. The adjusted color is automatically selected as the color of the stroke.



The Yellow Mini Picon

In the Stroke Controls, you see the color on the Current Stroke picon change to yellow, indicating that when the stroke is drawn in the workspace, it will be yellow.

NOTE The stroke you just created (and any custom stroke, for that matter) can be saved for further use by dragging-and-dropping its picon from the Stroke Controls into a bin. Load this stroke as you would any other stroke, by clicking on it.

11. Close the **Stroke Properties** and **Color Palette and Gradient Editor** panels by clicking on the **X** in the upper right corner of each panel.
12. Click anywhere in the workspace and type the words **Looping Text Tutorial**.

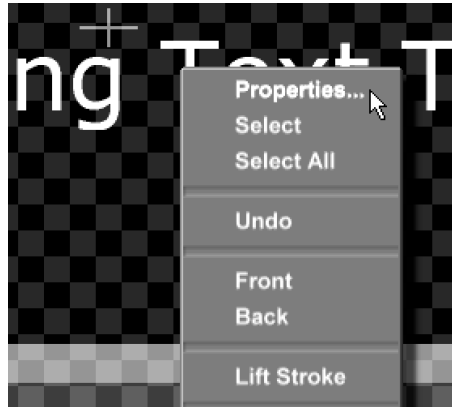
You see the words **Looping Text Tutorial** in the workspace (following figure).



Looping Text Tutorial in the Workspace

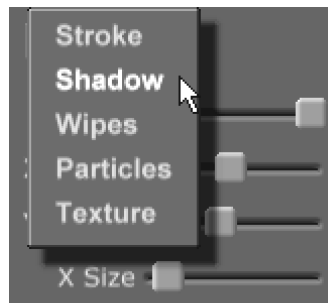
Since the text you typed is rather long, it may not be entirely visible in the workspace. This is alright, since you will later change the text's position in the workspace.

13. Bring up the **Shadow Properties** panel for the Looping Text Tutorial stroke. To do this:
 - a. Bring up the **Stroke Properties** panel for your text by right-clicking on the **Looping Text Tutorial** text and choosing **Properties** from the pop-up menu (following figure).



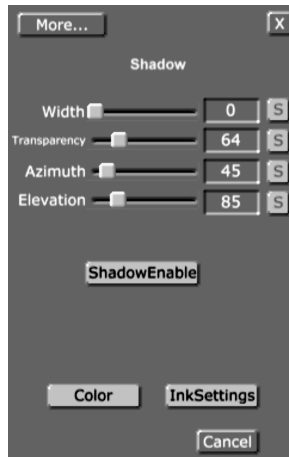
The Properties Pop-Up Menu

- b. From the **Stroke Properties** panel, bring up the **Shadow Properties** panel by clicking on the **More** button and choosing **Shadow** from the pop-up menu (following figure).



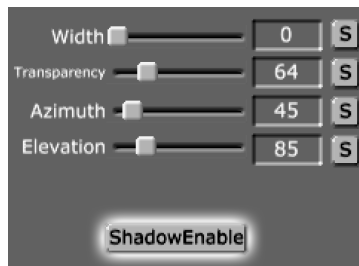
The More Pop-Up Menu

You see the **Shadow Properties** panel (following figure) in place of the **Stroke Properties** panel in the upper left corner of your screen. From the **Shadow Properties** panel, you can give a stroke a shadow and then adjust the shadow's properties, such as transparency and width. For more information about this panel, see “Shadow Properties Panel” on page 112.



The Shadow Properties Panel

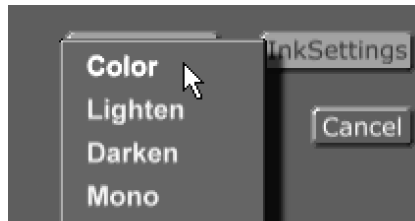
14. In the **Shadow Properties** panel, add a shadow to your text by clicking the **ShadowEnable** button (following figure).



The ShadowEnable Button

You see the **ShadowEnable** button is highlighted, indicating that a shadow was added to your text stroke. In the workspace you will not see the shadow until you adjust the shadow's properties.

15. Change the ink for the shadow by clicking the button labeled **Darken** and choosing **Color** from the pop-up menu (following figure)



Choosing Color from the Ink Pop-Up Menu

By changing the ink to Color, you have more control over the transparency of the shadow. If you keep Darken as the ink, the shadow is very light.

Black is the default color for the Color ink. If you want to change this color, click the **InkSettings** button and create or select a new color in the **Color Palette** panel. For this tutorial, you want to keep black as the color for your shadow's ink.

16. In the **Shadow Properties** panel, change the **Width** value (following figure) to **5** by selecting the **Width** value, typing 5, and pushing **Enter** on your keyboard. You could also change this value by clicking-and-dragging the slider to the right of the word **Width**.



The Width Value Set at 5

By changing the width value from 0 to 5, you have made the text stroke's shadow visible. A width value of 0 is a special value that results in a completely invisible shadow.

In the workspace, you see a light shadow with soft edges behind your text stroke.

17. In the **Shadow Properties** panel, change the Transparency value of your text stroke by clicking-and-dragging the **Transparency** slider (following figure) all the way to the right until the value is **255**. You can also change the transparency value by selecting the value, typing **255**, and pushing **Enter** on your keyboard.



The Transparency Slider with Value Set at 255

In the workspace, you see the shadow behind your text stroke darken.

18. In the **Shadow Properties** panel, change the **Azimuth** value for your text stroke's shadow to **20** by selecting the **Azimuth** value (following figure), typing **20**, and pushing **Enter** on your keyboard. Changing the **Azimuth** value changes the position of the shadow to simulate a change in the position of the light source falling on an object.



The Azimuth Value Set at 20

In the workspace, you see the shadow for your text stroke move slightly up and to the right.

19. In the **Shadow Properties** panel, change the **Elevation** value for your text stroke's shadow to **88** by selecting the **Elevation** value (following figure), typing **88**, and pushing **Enter** on your keyboard. Changing the elevation value changes how far away the shadow is from the object.



The Elevation Value Set at 88

In the workspace, you see the shadow for your text stroke move closer to your text.

NOTE The stroke you just created (and any custom stroke, for that matter) can be saved for further use by dragging-and-dropping its picon from the Stroke Controls into a bin. Load this stroke as you would any other stroke, by clicking on it.

20. Close the **Shadow Properties** panel by clicking the **X** button in the upper right corner of the panel.

You now have a text stroke with shadow that is ready to be animated. Continue to the next section of this tutorial to animate your text stroke.

Deleting and Adding Letters to Text Strokes

Letters can be deleted or added in your text stroke after it has been created. To use this function, a text brush stroke must be loaded as the Current Stroke in the Stroke Controls.

NOTE: *Panamation must be in Create mode to use this function.*

To use this function, first put Panamation in Create mode by clicking the **Create** button on the toolbar. Next, click within your text stroke to bring up the cursor. To delete letters in the stroke, push the **Backspace** or **Delete** key on your key. To add letters to the stroke, simply type on your keyboard.

NOTE: *As long a text brush stroke is loaded as the Current Stroke in the Stroke Controls, pushing the **Delete** key on your keyboard deletes letters within a text stroke. To delete a brush stroke, a brush stroke must be loaded as the Current Stroke in the Stroke Controls.*

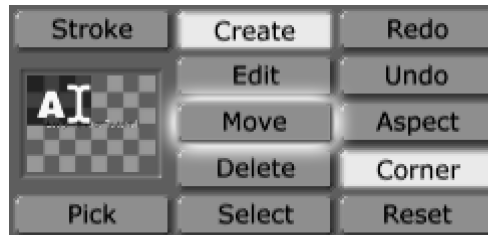
Animating Your Text Stroke

Now that you created your Looping Text Tutorial text stroke, it's time to animate the stroke.

In this section of the tutorial, you will animate the text so that it crawls from off the screen, moves left across the workspace, and then crawls off the left side of the screen. To do this, you will use the functions of the **Stroke Properties** panel to animate the text stroke.

To animate your text stroke, follow these steps:

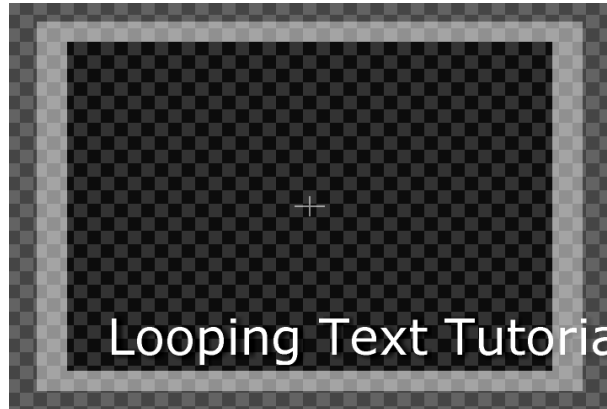
1. In the Stroke Controls, change Panamation to move mode by clicking the **Move** button (following figure).



The Move Button

You see that the **Move** button is selected, indicating that Panamation is now in move mode. In this mode, you can move strokes by clicking-and-dragging them in the workspace.

2. In the workspace, click-and-drag your text stroke down until it is just above the Safe Title Area. Your workspace should now look like the following figure.



The Text Stroke Inside the Safe Title Area

3. Bring up the **Stroke Properties** panel by right-clicking on your text stroke and choosing **Properties** from the pop-up menu (following figure).



Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel in the upper left corner of your screen. For additional information about the **Stroke Properties** panel, see “Stroke Properties Panel” on page 51.

4. In the Transport Controls, bring your effect to its starting point in the timeline by clicking the **First Frame** button (following figure).



The First Frame Button

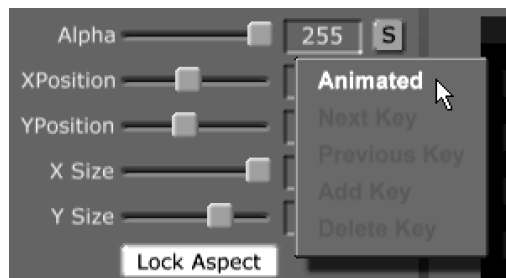
5. In the **Stroke Properties** panel, click-and-drag the **XPosition** slider (following figure) to the right until the text stroke in the workspace is just outside the workspace. This is where the text stroke will be at the beginning of the effect when you run it in Switcher.



The XPosition Slider

In the workspace, you see your text stroke move to the right until it is just outside the workspace.

6. In the **Stroke Properties** panel, animate this position of your text by clicking on the **Animation Status** button to the right of the word XPosition and choosing **Animated** from the pop-up menu (following figure).



Choosing Animated from the Pop-Up Menu

NOTE

When a stroke's property, such as size or position, is animated, a keyframe is automatically added for the stroke's position in the timeline. Whenever you alter a property that is animated at another point in the timeline, a keyframe is automatically added at that point in the timeline.

You see the **Animation Status** button change from **S** for static to **A** for animated.

7. Go to the end of the effect by clicking the **Last Frame** button in the Transport Controls (following figure).



The Last Frame Button

8. In the **Stroke Properties** panel, click-and-drag the **XPosition** slider (following figure) to the left until your text stroke is just outside of the workspace. This is where the text stroke will be at the end of the effect when you run it in Switcher. In the timeline, a keyframe is added for the stroke's new position at this point in the animation.



The XPosition Slider

In the workspace, you see your text stroke move to the left until it is just outside the workspace.

9. Close the **Stroke Properties** panel by clicking the **X** button in the upper right corner of the panel.

10. Preview how your effect will play back when it is run in Switcher. To do this:
 - a. Bring the effect to its beginning by clicking the **First Frame** button in the Transport Controls.



The First Frame Button

You see the effect at its beginning in the workspace.

- b. Play the effect by clicking the **Play** button (following figure) in the Transport Controls.



The Play Button

In the workspace, you see your text stroke continuously loop as it crawls across the bottom of your workspace.

NOTE When a project is previewed in Panamation, the speed at which it plays back is slower than its actual speed when run in Switcher or Predator. How slow this effect is played in Panamation is determined by how complex the strokes and animation are on each frame.

- c. Stop the effect from playing in Panamation by clicking the **Stop** button (following figure) in the Transport Controls.



The Stop Button

In the workspace, you see your text stroke stop playing.

Now that you've animated your text stroke, you're ready to save it in a format that can be run in Switcher.

Saving Your Effect

Now that you have an effect in which your text crawls across the bottom of your screen, it's time to save your project. This section of the tutorial teaches you how to save an effect as an overlay.

To save the project, follow these steps:

1. In the Workspace Controls, click the **File Type** button (the button to the right of the **Workspace** button) and choose **Overlay** from the pop-up menu (following figure).



Choosing Overlay from the Pop-Up Menu

The **File Type** button should now read **Overlay**. With Overlay selected as the file type, when the project is saved it will act as an overlay. If you chose **Wipe** from the pop-up menu, your project is saved as a wipe.

2. In the Workspace Controls, click-and-drag the workspace picon (following figure) into the bin directory **GlobeCaster/Bins/Panam/Projects**. By saving the project in this bin, it will be easier to find it when you use it later in the tutorial "Recording ClipMem/Time Machine Clips" on page 90 of the Tutorial manual.



The Workspace Picon

You see a window come up indicating that the project is being saved (following figure).



The Saving Project Window

When this window disappears, your project is saved.

You now have an effect that can be run in Switcher (see the Switcher Manual for more information about running effects in the Switcher application).

Now that you've completed this tutorial, it's time to move on to the next tutorial.

Creating A Reusable Motion Path For Flying Text

After creating some animated text in Panamation, you'll probably like the effect so much that you will want to use it again with other text. In this tutorial, you'll learn how to create text that flies on and off the screen, a common technique used in commercials.

This tutorial is set up so that the effect created can be used again with other text. You will do this by first creating your text and then saving it as a still. This still can be brought back into Panamation and animated. Since the animated text is saved as a still, it can easily be replaced with other text that was also saved as a still.

The following figure illustrates what the finished project looks like when run in Switcher.



The Finished Project Run in Switcher

This tutorial is broken up into six parts. These parts are:

1. Preparing the workspace
2. Creating text in Panamation
3. Saving text as a still

4. Animating the text still
5. Saving the project
6. Reusing the text's motion path

Preparing The Workspace

Before you actually begin creating your graphic, you need to first prepare the workspace. By doing this, you tell Panamation how to display the workspace, and how the text still will be displayed after you save it and load it into the workspace so that you can animate it.

Follow these steps to prepare the workspace:

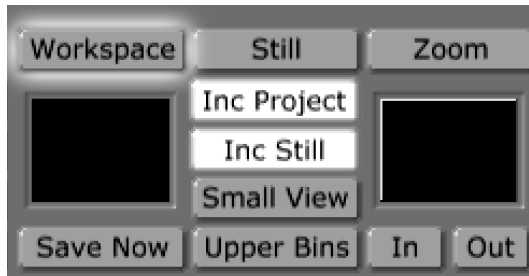
1. Right-click on the **Workspace** picon and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



Choosing New Project from the Pop-Up Menu

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. see “Workspace Properties Panel” on page 182 for more information on using this panel.



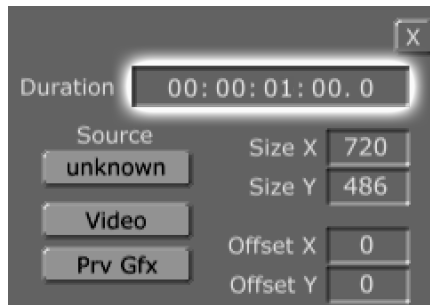
The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button on.

This makes the background of the layer transparent. That way, when you bring your text still into another workspace, you can see the video source behind the text. Otherwise, the background behind the text is black.

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. In the **Workspace Properties** panel, change the duration of your effect from **1** second to **2** seconds. To do this:
 - a. Click on the **1** in the timecode (following figure). Timecode is in standard SMPTE format (HH:MM:SS:FF). That means that the 1 is the seconds value.



Timecode in the Workspace Properties Panel

- b. Type in the new value for the seconds, which is **2**.
 - c. Press **Enter** on your keyboard.
5. Close the **Workspace Properties** panel by clicking the X in the upper right corner of the panel.

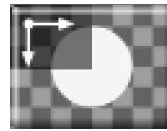
Now that you've prepared the workspace, you're ready to create your text.

Creating Text In Panamation

You now want to create the text that you will later animate. In this section of the tutorial, you will create a text stroke and change the type style and color of the letters. If you want to create your own custom text, you could modify these steps to create your own custom text.

To create your text in Panamation, follow these steps:

1. Locate the following picon in the bin **GlobeCaster/Bins/Panam/Sampler**. This is the picon for a stroke that you will alter so that it is a text stroke.

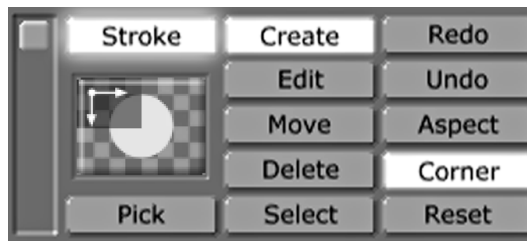


The Stroke Picon

2. Load this stroke as the current stroke by clicking on its picon.

You see the picon loaded in the Stroke Controls. This is where the current stroke is displayed.

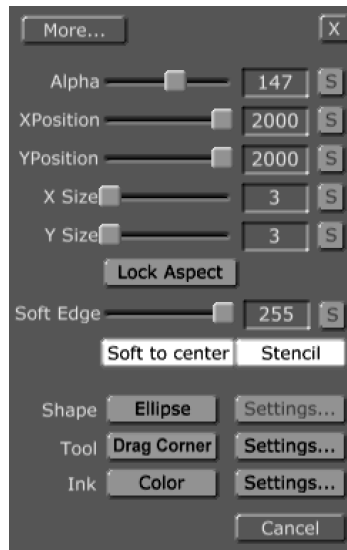
3. Bring up the **Stroke Properties** panel by clicking the **Stroke** button (following figure) in the stroke controls.



The Stroke Button

You see the **Stroke Properties** panel (following figure) in the upper left corner of your screen. From this panel, you can adjust the properties of a stroke, such as the X and Y position of the stroke. You can also animate any of the stroke's properties from the **Stroke Properties** panel. For more

information on using this panel, see “Stroke Properties Panel” on page 51.



The Stroke Properties Panel

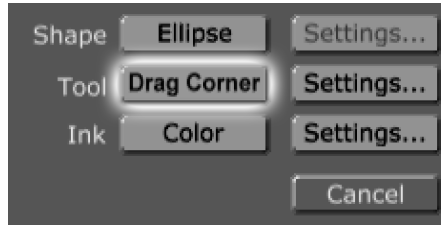
4. In the **Stroke Properties** panel, click on the **Soft Edge** slider (following figure) and drag it all the way to the left so that the **Soft Edge** value is **0**. You could also change this value by clicking on the numeric value, typing in a new value, and pushing **Enter** on your keyboard.



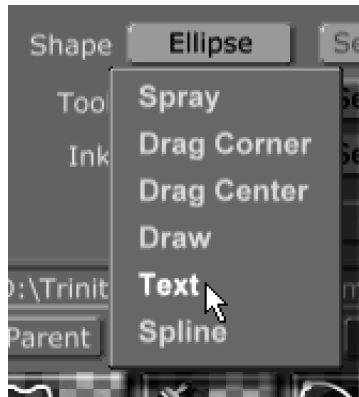
The Soft Edge Slider

By changing the **Soft Edge** value to **0**, you are changing the softness of the edge of the text you will create. If you typed in a higher value, you would get text that has a soft, blurred edge.

5. Click on the **Tool** button (following figure) and choose **Text** from the pop-up menu. This pop-up menu is where you set the shape of your stroke.



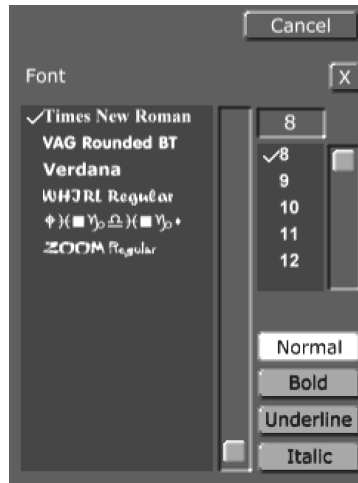
The Tool Button



Choosing Text from the Tool Pop-Up Menu

6. From the **Stroke Properties** panel, bring up the **Text Settings** panel by clicking on the **Settings** button to the right of the word Tool.

You see the **Text Settings** panel (following figure) just below the **Stroke Properties** panel. The **Text Settings** panel is where you choose the font and size of your text stroke. For more information on using the **Text Settings** panel, see “Text Settings Panel” on page 75.



The Text Settings Panel

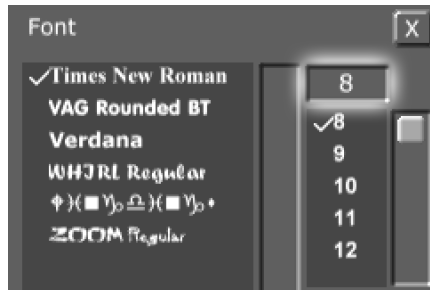
7. In the **Text Settings** panel, change the font to **Verdana** by scrolling through the font list and clicking on the font name.

You see a check mark next to the word **Verdana** (following figure), indicating that the font was selected.



The Font Verdana Selected

8. In the **Text Settings** panel, change the font size to **72** by scrolling through the fonts sizes and clicking on the font size **72**. The font size can also be changed by selecting the size in the Font Size window (following figure), typing in a new font size, and pushing **Enter** on your keyboard.



The Font Size Window

You see a check mark next to the font size **72** (following figure), indicating that the font size was selected.



The Font Size 72 Selected

9. In the **Stroke Properties** panel, bring up the **Color Palette** by clicking the **Settings** button (following figure) to the right of the word **Ink**. If an ink other than the Color ink is selected, clicking the **Settings** button brings up the **Settings** panel for that ink.



The Settings Button

You see the **Color Palette and Gradient Editor** panel (following figure) appear in place of the **Text Settings** panel. The **Color Palette and Gradient Editor** panel is where you change the color of a stroke or add a gradient to a stroke. See “Color Palette And Gradient Editor Panel” on page 99 for more information on using this panel.



The Color Palette and Gradient Editor Panel

10. In the **Color Palette and Gradient Editor** panel, change the color of the text stroke by clicking on the red mini picon (following figure). This loads the color as the current color for the stroke. If you want to create your own custom color, you can adjust the sliders for the Red, Green, and Blue values. The adjusted color is automatically selected as the color of the stroke.



The Red Mini Picon

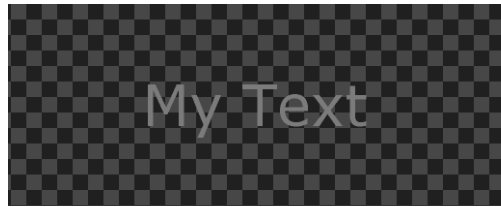
In the Stroke Controls, you see the color in the Current Stroke picon turn red.

11. Close the **Stroke Properties** and **Color Palette and Gradient Editor** panels by clicking on the **X** in the upper right corner of each panel.

NOTE The stroke you just created (and any custom stroke, for that matter) can be saved for further use by dragging-and-dropping its picon from the Stroke Controls into a bin. Load this stroke as you would any other stroke, by clicking on it.

12. Click in the middle of the workspace and type the words **My Text**.

You see the words **My Text** in the workspace (following figure).



The My Text Stroke in the Workspace

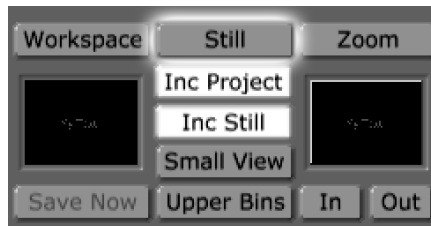
You now have text in the workspace and you are ready to save it as a still that will later be animated.

Saving Text As A Still

Now that you have created the text you will animate later in this tutorial, it's time to save it as a still. By saving this text as a still, you can make it the graphic texture for a stroke and then animate it. Since the texture of the stroke is a still, it is extremely easy to replace with another still when you reuse the motion path.

But before you get too far ahead of yourself, it's time to save your text as a still. To do this, follow these steps:

1. In the **Workspace Controls**, check to make sure that the file type is set as a **Still** (following figure). This is the default setting for how a file is saved.



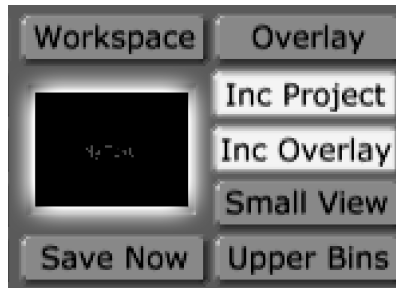
File Type Set as a Still

If it isn't set at **Still**, click the **File Type** button and choose **Still** from the pop-up menu (following figure). In this menu, the first file types are formats that are native to GlobeCaster. The others are formats for other programs.



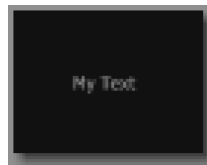
Choosing Still from the Pop-Up Menu

2. Click-and-drag the workspace picon (following figure) into the bin **GlobeCaster/Bins/Panam/Projects**. By dropping the picon into this bin, it will be easier for you to find it when you use it later in this tutorial.



The Workspace Picon

You see the following picon in the bin **GlobeCaster/Bins/Panam/Projects**.



The Saved Text Still Picon

You now have a text still that can be dragged-and-dropped into any workspace. Now it's time to move on to the next part of the tutorial, where you will bring this still into the Panamation workspace and animate its motion.

Animating The Text Still

Now that you have saved a still of your text, it's time to animate that text. In this part of the tutorial, you will animate your text so that it flies in from the left from off the screen, pauses in the middle, and then flies to the right off the screen.

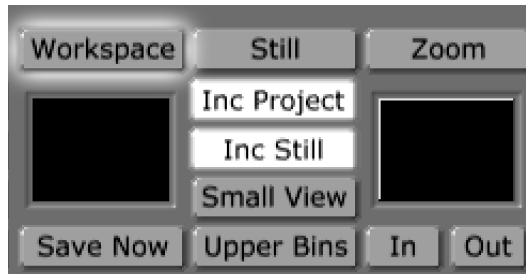
To animate your text, follow these steps:

1. Clear the project from the workspace and start a new project by right-clicking on the **Workspace** picon and choosing **New Project** from the pop-up menu (following figure).



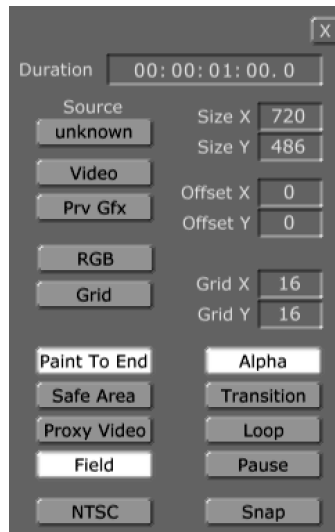
Choosing New Project

2. Bring up the **Workspace Properties** panel by clicking the **Workspace** button (following figure) in the Workspace controls.



The Workspace Button

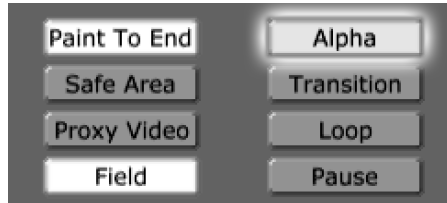
You see the **Workspace Properties** panel (following figure) in the upper left corner of your screen. From the **Workspace Properties** panel, you can adjust how the workspace is displayed, and how your effect behaves when it is played back in Switcher or Preditor. see “Workspace Properties Panel” on page 182 for additional information about this panel.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following button) so that it is on. By turning the **Alpha** button on, the background of your effect is transparent when it is run in Switcher or Preditor. If Alpha is

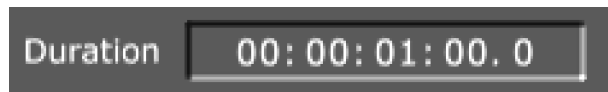
not turned on, then the background is black when the effect is run in Switcher or Predator.



The Alpha Button

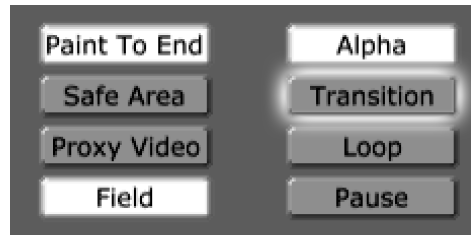
You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. In the **Workspace Properties** panel, change the duration of the effect by clicking on the **1** in the **Duration** window (following figure), typing **2**, and pressing **Enter** on your keyboard. This changes the duration of the effect to 2 seconds. This is how you change the duration of any effect you are creating.



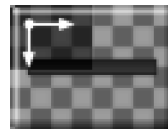
The Duration Window

5. In the **Workspace Properties** panel, turn off the Transition function by clicking the **Transition** button (following figure). If the project is saved with the transition function turned on, when it is played back in Switcher or Predator, it transitions from one video source into another. Since you want your text to act as an overlay, you want this function turned off.



The Transition Button

6. Close the **Workspace Properties** panel by clicking the **X** in the upper right corner of the workspace.
7. Locate the following picon in the directory **GlobeCaster/Bins/Panam/Boxes**. It is the picon with the solid blue horizontal box on it.

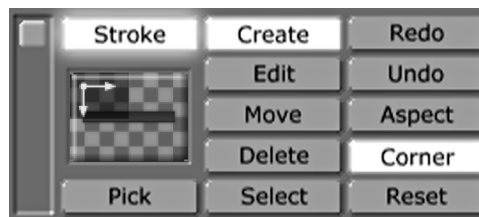


The Stroke Picon

8. Load this picon as the current stroke by clicking on it.

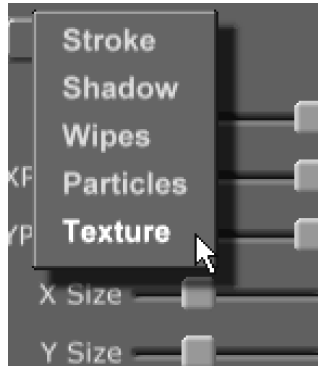
You see the picon load as the current stroke picon in the Stroke Controls.

9. Bring up the **Texture Properties** panel for the current stroke. To do this:
 - a. In the Stroke Controls, bring up the **Stroke Properties** panel by clicking the **Stroke** button (following figure).



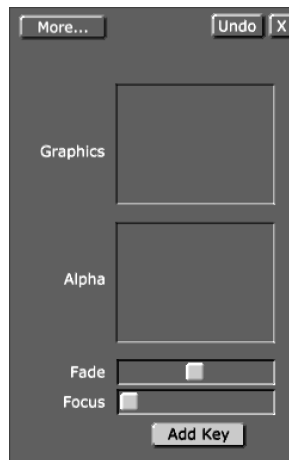
The Stroke Button

- b. From the **Stroke Properties** panel, bring up the **Texture Properties** panel by clicking the **More** button and choosing **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in place of the **Stroke Properties** panel. From this panel, you can add a graphic to a stroke or access the keyer panels for Panamation. For more information about the **Texture Properties** panel, see “Texture Properties Panel” on page 124.



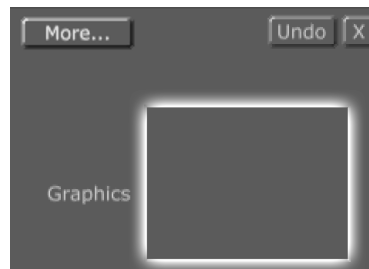
The Texture Properties Panel

10. Locate the picon for the text still that you created (following figure). It is in the directory **GlobeCaster/Bins/Panam/Projects**.



The Text Still Picon

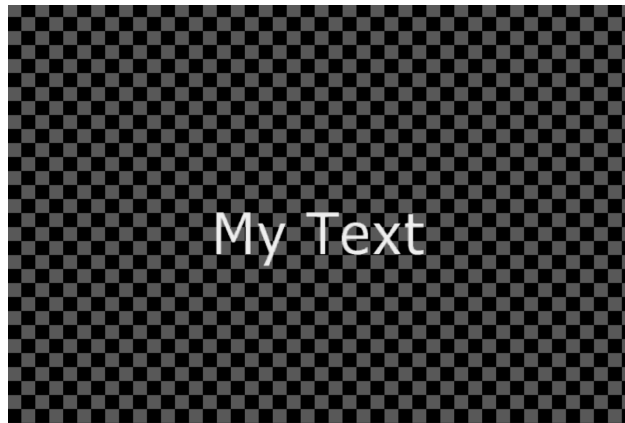
11. Drag-and-drop the picon for the text still into the **Graphics Window** (following figure) in the **Texture Properties** panel. By doing this, you are applying the graphic to the stroke when you draw it in the workspace.



The Graphics Window

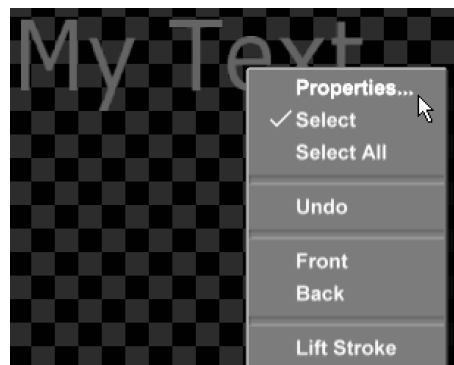
12. Make sure that the **Create** button in the Stroke Controls is selected. With the **Create** button selected, you can draw strokes in the workspace.
13. In the workspace, click-and-drag to draw a text stroke. You should drag until the **My Text** type is roughly the size it was when you originally created it.

You see the **My Text** type in the workspace. The following figure illustrates what the workspace should look like.



The My Text Stroke Drawn in the Workspace

14. In the workspace, right-click on the **My Text** stroke and choose **Properties** from the pop-up menu (following figure) to bring up the **Stroke Properties** panel for the stroke. Be sure to right-click on the letters in the stroke, or the **Workspace Properties** panel is brought up.



Choosing Properties from the Pop-Up Menu

You see the **Stroke Properties** panel in the upper left corner of your screen. You will use this panel to animate the position of the **My Text** stroke.

15. In the **Stroke Properties** panel, click and drag the **XPosition** slider (following figure) to the left until the **My Text** type is just out of the

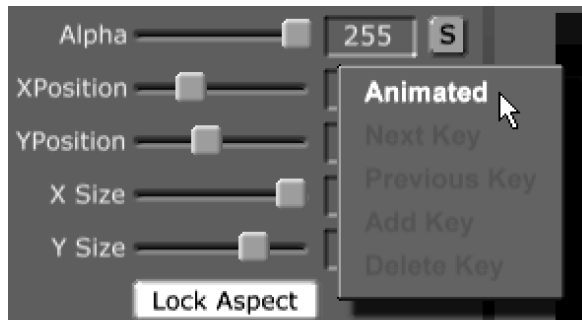
workspace. If you want the text to scroll down, you can adjust the YPosition slider instead.



The XPosition Slider

You see the My Text Type Slide to the left, out of the Workspace.

16. In the **Stroke Properties** panel, click the **Animation Status** button for the **XPosition** and choose **Animated** from the pop-up menu (following figure).

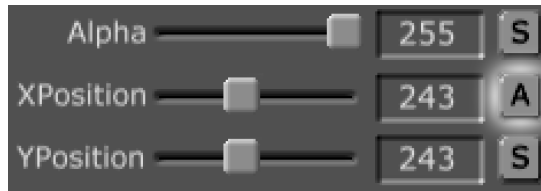


Choosing Animated from the Pop-Up Menu

NOTE

When a stroke's property, such as size or position, is animated, a keyframe is automatically added for the stroke's position in the timeline. Whenever you alter a property that is animated at another point in the timeline, a keyframe is automatically added at that point in the timeline.

You see the **Animation Status** button change from **S** for static to **A** for animated (following figure). That means that the position of the **My Text** stroke is now animated.



The Animation Status Reading A for Animated

17. In the Transport Controls, click the **Last Frame** button (following figure) to bring the effect to its end. By doing this, you can set the position of the **My Text** stroke at the end of the effect.

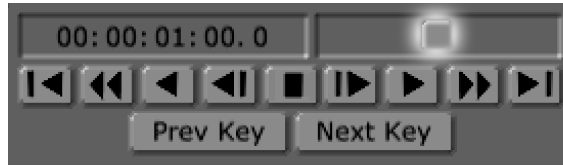


The Last Frame Button

18. In the **Stroke Properties** panel, click-and-drag the **XPosition** slider to the right, until the **My Text** type is just out of the workspace. This is where you want the text to be at the end of the effect. In the timeline, a keyframe is added for this stroke's position at this point in the animation.

You see the **My Text** stroke move from left to right, until the text is out of the workspace.

19. Close the **Stroke Properties** panel by clicking the **X** button in the upper right corner of the panel.
20. Click-and-drag the Timecode slider (following figure) to the left, until the Timecode display reads **00:00:01:00.0**. This is where you will add a pause point to the effect. That way, when the effect is run in Switcher, it pauses halfway through.



The Timecode Slider

In the workspace, you see the **My Text** stroke in the middle of the screen.

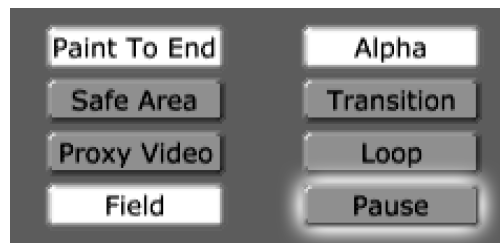
21. In the Workspace Controls, click the **Workspace** button to bring up the **Workspace Properties** panel.

You see the **Workspace Properties** panel in the upper left corner of the screen.

22. In the **Workspace Properties** panel, click the **Pause** button (following figure). This adds a pause point at this point in the effect. When the effect is run in Switcher, it pauses at this point in the effect.

TIP

Adding a pause point to an effect also allows an overlay to be stretched once it is dragged into a Predator timeline. When stretching an overlay with a pause point in it in Predator, the overlay is stretched at the pause point.



The Pause Button

23. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the panel.
24. Preview the animation in Panamation to see how it will look when it is run in Switcher or loaded into Predator. To do this, follow these steps:

- a. Bring the animation to its beginning by clicking the **First Frame** button (following figure) in the Transport Controls.



The First Frame Button

In the workspace, you see the animation at its starting point, with the **My Text** stroke out of the workspace.

- b. Play the animation by clicking the **Play** button (following figure) in the Transport Controls.



The Play Button

In the workspace, you see the animation as it plays. You see the **My Text** stroke crawl across the screen. Note that the effect does not pause where you added a pause point. The effect will not pause unless it is run in Switcher.

NOTE When a project is previewed in Panamation, the speed at which it plays back is slower than its actual speed when run in Switcher or Predator. How slow this effect is played in Panamation is determined by how complex the strokes and animation are on each frame.

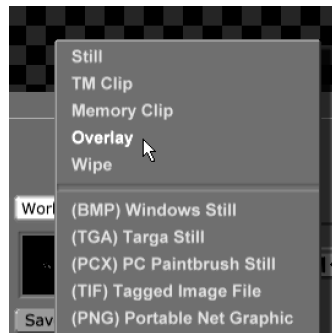
You now have an effect where your **My Text** stroke moves into the workspace from the left, pauses, and then moves to the right, out of the workspace. Before you can run it in Switcher, you need to save it. Continue on to the next section of this tutorial to save your project.

Saving The Project

Now that you have an effect where your text flies in off the screen, pauses, and then flies off the screen, it's time to save your project. This section of the tutorial teaches you how to save an effect as an overlay.

To save the project, follow these steps:

1. In the Workspace Controls, click the **File Type** button (the button to the right of the **Workspace** button) and choose **Overlay** from the pop-up menu (following figure).



Choosing Overlay from the Pop-Up Menu

The **File Type** button should now read **Overlay**. With Overlay selected as the file type, when the project is run in Switcher it acts as an overlay. If you chose **Wipe** from the pop-up menu, your project is saved as a wipe.

2. In the Workspace Controls, click-and-drag the workspace picon (following figure) into the bin **GlobeCaster/Bins/Panam/Projects**. Saving the project in this bin makes it easier to locate it when you use it later in this tutorial.



The Workspace Picon

You see a window come up indicating that the project is being saved (following figure).



The Saving Project Window

When this window disappears, your project is saved.

You now have an effect that can be run in Switcher (see the Switcher Manual for more information about running effects in Switcher). Continue ahead to find out how to reuse the motion path of this effect.

Reusing The Text's Motion Path

Now that you saved your project, you have an effect that can be run in Switcher. You can also go back into Panamation and reuse the motion path you created in this project.

To reuse the motion path you created, follow these steps:

1. Clear the project from the workspace and start a new project by right-clicking on the **Workspace** picon and choosing **New Project** from the pop-up menu (following figure).



Choosing New Project

2. Repeat the steps in the sections “Creating Text In Panamation” on page 330 and “Saving Text As A Still” on page 337 to create a new text still. This time, instead of typing My Text, create your own phrase or words.

You can also create a text still in TitleWave (see the TitleWave Manual for more information on creating a text still in TitleWave). Be sure to save this text still in the directory **GlobeCaster/Bins/Panam/Projects**. This makes it easier to locate your still when you need it later in this tutorial.

3. Locate the following picon in the directory **GlobeCaster/Bins/Panam/Projects**. This is the picon for the effect you created earlier in this tutorial.



The Saved Effect Picon

4. Load this picon as the current project by double-clicking on it.

You see the project load in the workspace.

NOTE

When projects are loaded into Panamation they are automatically brought to the last frame.

5. Bring the project to its middle by clicking-and-dragging the Timecode slider (following figure) until the Timecode display reads **00:00:01:00:0**. You can also bring the project to its middle by clicking in the timecode display, typing in a new timecode, and pressing **Enter** on your keyboard.



The Timecode Slider

You see the words **My Text** in the middle of the workspace. Remember, this is the position of the text in the middle of the effect.

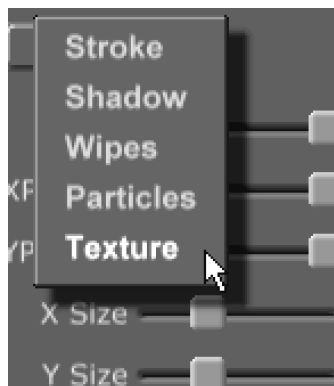
6. Bring up the **Texture Properties** panel for the **My Text** stroke. To do this:
 - a. Bring up the **Stroke Properties** panel by right-clicking on the **My Text** stroke and choosing **Properties** from the pop-up menu (following figure). Be sure to click on the letters in the **My Text** stroke. Otherwise, the **Workspace Properties** panel is brought up.



Choosing Properties from the Pop-Up Menu

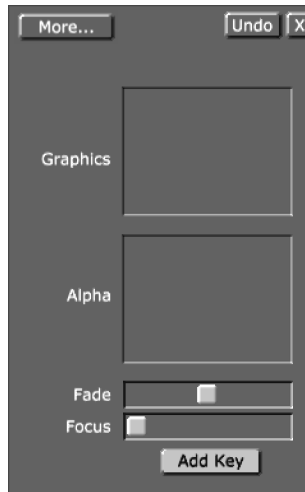
You see the **Stroke Properties** panel in the upper left corner of your screen.

- b. In the **Stroke Properties** panel, click on the **More** button in the upper left corner and choose **Texture** from the pop-up menu (following figure). This brings up the **Texture Properties** panel, where you will change the graphic still applied to the stroke.



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) in place of the **Stroke Properties** panel in the upper left corner of your screen. For additional information about the **Texture Properties** panel, see “Texture Properties Panel” on page 124.



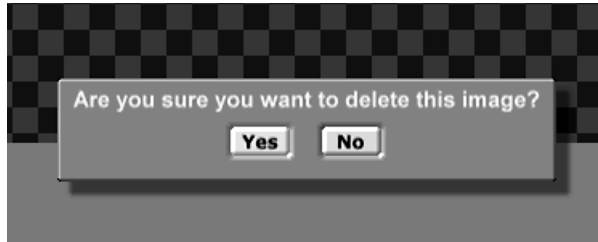
The Texture Properties Panel

7. In the **Texture Properties** panel, delete the text still applied to your stroke by right-clicking in the Graphics Window and choosing **Delete** from the pop-up menu (following figure).



Choosing Delete from the Pop-Up Menu

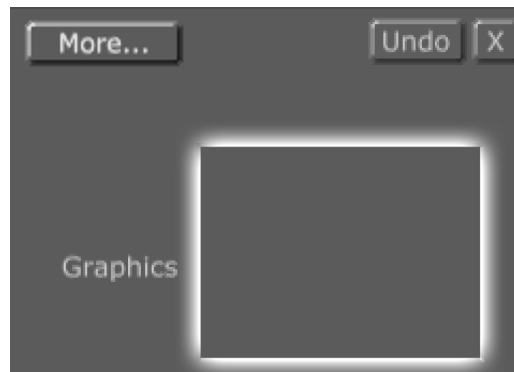
You see a window come up (following figure) asking if you want to delete the image. Click the **Yes** button.



The Delete Image Window

In the workspace, you see the text still disappear from your stroke and you see the workspace turn blue. Remember, you originally applied your text still to a stroke that was blue. Panamation is remembering the original appearance of the stroke.

8. Locate the picon for the new text still you created and placed in the directory **GlobeCaster/Bins/Panam/Projects**.
9. Make this text still the texture for your stroke by dragging-and-dropping its picon into the **Graphics Window** (following figure) in the **Texture Properties** panel.



The Graphics Window

You see your new text still in the workspace, indicating that it is the new texture for your stroke.

This stroke retains all of its original animation properties, so when you run this new effect in Switcher it behaves exactly as your original effect did.

10. Preview the animation in Panamation to see how it will look when it is run in Switcher or loaded into Predator. To do this, follow these steps:
 - a. Bring the animation to its beginning by clicking the **First Frame** button (following figure) in the Transport Controls.



The First Frame Button

In the workspace, you see the animation at its starting point, with your custom stroke out of the workspace.

- b. Play the animation by clicking the **Play** button (following figure) in the Transport Controls.



The Play Button

In the workspace, you see the animation as it plays. You see your custom text stroke crawl across the screen. Note that the effect does not pause where you added a pause point. The effect will not pause unless it is run in Switcher.

NOTE When a project is previewed in Panamation, the speed at which it plays back is slower than its actual speed when run in Switcher or Predator. How slow this effect is played in Panamation is determined by how complex the strokes and animation are on each frame.

11. Save this new effect by repeating the steps in the section “Saving The Project” on page 350.

Congratulations! You now have a reusable motion path for flying text. If you wish, you can also use the skills learned in this tutorial to create a reusable motion path for graphics. If you used this project with graphics, you would simply use a graphic still as the texture for the stroke instead of a text still.

You could also animate other properties of the motion path, such as transparency and particle scatter. The animation properties you can apply to your reusable motion path are only limited by your imagination.

Now that you've created your reusable motion path for flying text, it's time to move on to the next tutorial.

Extracting Graphics With The Lift Stroke Function

There will be times when you are working with Panamation that you will want to save a group of objects, or an entire project, as a single stroke that can be dragged and dropped into the workspace at a later time. For example, you would use this function if you wanted to create a custom graphic to use in a wipe effect where the graphic wipes away one source of video.

In fact, this is exactly the type of graphic you will create in this tutorial. In this tutorial you will create a tall, thin graphic of a flag with blurred edges. In a following tutorial you will use this graphic to create a custom wipe with a graphic (see “Creating Animated Wipes With Graphics” on page 76 of the Tutorial manual for more information about this tutorial.)

The following figure illustrates what the finished graphic will look like when you complete the tutorial.



The Finished Graphic.

But before you get too far ahead of yourself, first create your graphic. This tutorial is broken up into three part. These parts are:

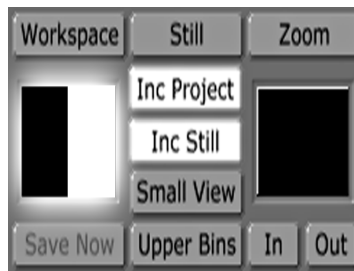
1. Preparing the workspace
2. Creating the custom graphic
3. Saving the graphic

Preparing The Workspace

Before you actually begin creating your graphic, you need to first prepare the workspace. By doing this, you are telling Panamation how to display the workspace, and how the graphic will be displayed after you save it and load it into another workspace.

Follow these steps to prepare the workspace:

1. Right-click on the **Workspace** picon (following figure) and choose **New Project** from the pop-up menu (following figure). If you are starting up Panamation for the first time, this is unnecessary since there is no project loaded into the workspace.



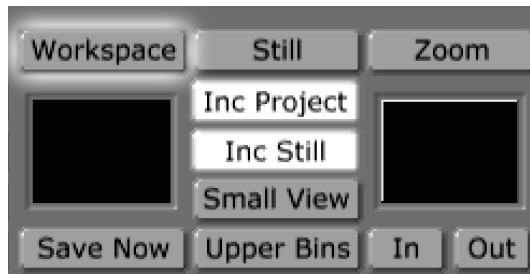
The Workspace Picon



Choosing New Project

Choosing **New Project** clears the workspace, making it ready to start a new project. If an unsaved project is in the workspace, a menu comes up asking if you want to save the current project. If you wish to save this project, click **Yes**. If you don't wish to save it, click **No**.

2. Click the **Workspace** button (following figure) above the Workspace picon to bring up the **Workspace Properties** panel.



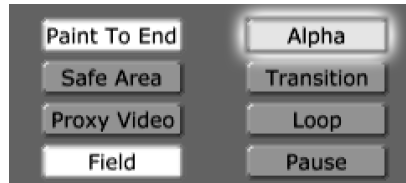
The Workspace Button

You see the **Workspace Properties** panel (following figure) in the upper-left corner of the screen. From the **Workspace Properties** panel, you can set the length of your effect, change how it is displayed in the workspace, and how it acts when it is run in Switcher. see “Workspace Properties Panel” on page 182 for additional information on using this panel.



The Workspace Properties Panel

3. In the **Workspace Properties** panel, click the **Alpha** button (following figure) on. This makes the background of the layer transparent.



The Alpha Button

You see the workspace change from solid black to a checkerboard pattern. The checkerboard pattern indicates that the background of a layer is transparent.

4. Make sure that the **Paint To End**, **Field**, and **Transition** buttons are clicked on.

Having these buttons clicked on is the default setting for Panamation, but if you are continuing after building another project, you may need to click them on again.

With **Paint To End** selected, any stroke you draw at the beginning of the timeline lasts the entire length of it. If this button is not selected, then any object drawn in the workspace only lasts for a single frame. If you are rotoscoping, you do not want **Paint To End** selected.

With **Field** selected, all timecode is displayed in fields. Having this selected is not necessary, but since it is the default, you'll keep it at these settings for this project.

With **Transition** selected, a project is saved as a transition. Selecting this is necessary if you are creating an effect such as a wipe, but is not necessary for creating a still. Since this is the default, you'll leave it at this setting. When you save this project you will save a single stroke, so how the entire project is saved is unimportant.

5. Close the **Workspace Properties** panel by clicking the **X** button in the upper right corner of the panel.

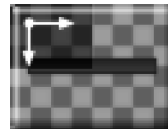
Now that you've prepared the workspace, you're ready to create your graphic.

Creating The Custom Graphic

When you finish, you will have a graphic of a tall, thin flag that has blurred edges. To do this, you will put many elements together to build what your graphic will look like. Once you've done this, you will use the lift stroke function to "pull" these elements onto a single stroke.

Follow these steps to create your custom graphic:

1. Locate the following stroke picon, located in the directory **GlobeCaster/Bins/Panam/Boxes**. It is the picon with the solid blue horizontal box on it.

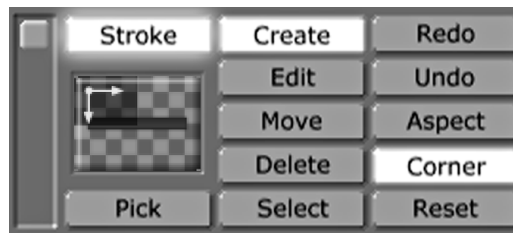


The Stroke Picon

2. Load this picon as the current stroke by clicking on it.

You see this picon load in the Current Stroke picon window.

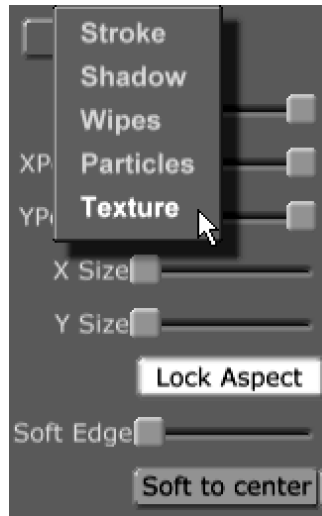
3. Bring up the **Texture Properties** panel. To do this:
 - a. Click the **Stroke** button in the Stroke Controls (following figure).



The Stroke Button

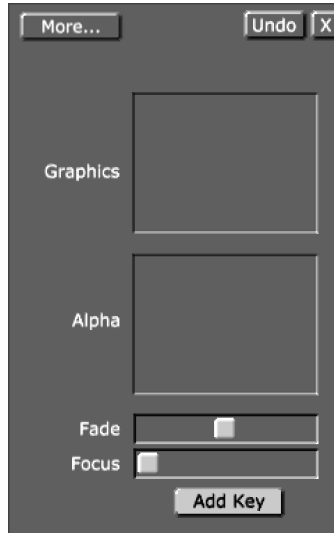
You see the **Stroke Properties** panel in the upper left corner of the screen.

- b. Click the **More** button in the upper left corner of the **Stroke Properties** panel and choose **Texture** from the pop-up menu (following figure).



Choosing Texture from the Pop-Up Menu

You see the **Texture Properties** panel (following figure) appear in place of the **Stroke Properties** panel. The **Texture Properties** panel is where you apply a graphic, ClipMem, Time Machine clip, or AVI to a stroke. From this panel, you can also bring up Panamation's keyer panels by clicking the **Add Key** button and selecting a keyer from the pop-up menu. For additional information about the **Texture Properties** panel, see "Texture Properties Panel" on page 124.



The Texture Properties Panel

4. Locate the following picon in the bin directory **GlobeCaster/Bins/Panam/Projects**. It is the picon with the American flag on it.



The Flag Picon

5. Drag the flag picon into the window to the right of the word **Graphics** in the **Texture Properties** panel. By doing this, the texture of your stroke is now the American flag. That means that when you draw a stroke in your workspace, an American flag is drawn.

Any graphic can be drawn in the workspace by repeating these steps with the desired graphic.

NOTE The stroke you just created (and any custom stroke, for that matter) can be saved for further use by dragging-and-dropping its picon from the Stroke Controls into a bin. Load this stroke as you would any other stroke, by clicking on it.

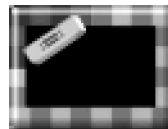
6. Close the **Texture Properties** panel by clicking the **X** button in the upper right corner of the panel.
7. Draw an American flag stroke that fills the entire workspace by clicking just outside the upper left corner of the workspace and dragging just outside the lower right corner of the workspace.

You see an American flag that fills the entire workspace (following figure).



The American Flag Drawn in the Workspace

8. Locate the erase picon (following figure) in the directory **GlobeCaster/Bins/Panam/Sampler**.

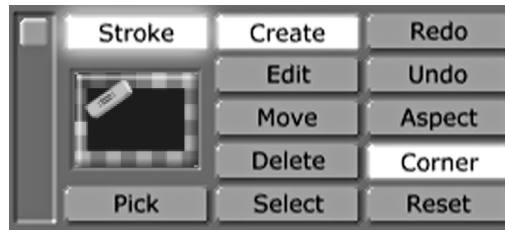


The Erase Picon

9. Load this picon as the Current Stroke by clicking on it.

You see the picon in the Current Stroke picon window.

10. Bring up the **Stroke Properties** panel by clicking the **Stroke** button (following figure) in the Stroke Controls.



The Stroke Button

You see the **Stroke Properties** panel in the upper left corner of the screen. See “Stroke Properties Panel” on page 51 for more information about this panel.

11. In the **Stroke Properties** panel, click and drag the **Soft Edge** slider (following figure) so that the value next to the slider is **40**. You can also change this value by selecting the value, typing in **40**, and pressing **Enter** on your keyboard.



The Soft Edge Slider

By changing the **Soft Edge** value, you’ve added a soft edge to your erase stroke. A soft edge can be added to any stroke by adjusting this value.

NOTE The stroke you just created (and any custom stroke, for that matter) can be saved for further use by dragging-and-dropping its picon from the Stroke Controls into a bin. Load this stroke as you would any other stroke, by clicking on it.

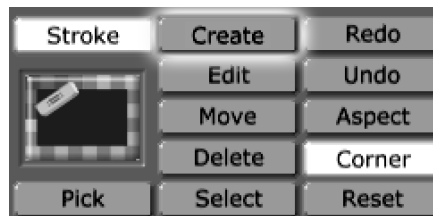
12. Close the **Stroke Properties** panel by clicking the **X** button in the upper right corner of the panel.
13. Draw a stroke that covers roughly half of the American flag (following figure). Do this by clicking just outside the upper right corner of the workspace and dragging down so that the stroke ends just outside the center of the lower edge of the workspace.



Erase Stroke Covering Half the Flag Graphic

If you don't draw the stroke quite right, don't worry. Since every stroke in Panamation can be moved and edited, including erase strokes, you can easily edit the box to your specifications the way you would any stroke.

14. In the Stroke Controls, select the **Create** button (following figure).



The Create Button

15. Draw a second stroke that covers nearly all of the other half of the American flag, leaving a roughly 2-inch wide stripe of flag showing (following figure). Do this by clicking just outside the upper left corner of the workspace and dragging down so that the stroke ends just outside the center of the lower edge of the workspace.



Stripe of Flag Showing

This is what your graphic will look like when you finish. But the graphic is still made up of individual objects, and you want a graphic that is made up of one single object, so you still have some work to do.

If you don't draw the stroke quite right, don't worry. Since every stroke in Panamation can be moved and edited, including erase strokes, you can easily edit the box to your specifications the way you would any stroke.

16. Locate the following picon in the directory **GlobeCaster/Bins/Panam/Boxes**. It is the picon with the solid blue horizontal box on it.



The Stroke Picon

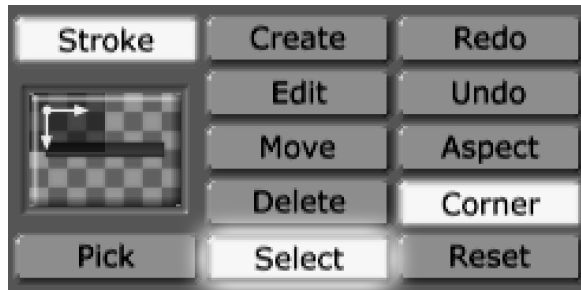
17. Load this picon as the current stroke by clicking on it.

You see this picon load in the Current Stroke picon window.

18. Draw a stroke that covers the entire workspace by clicking just outside the upper left corner of the workspace and dragging just outside the lower right corner of the workspace.

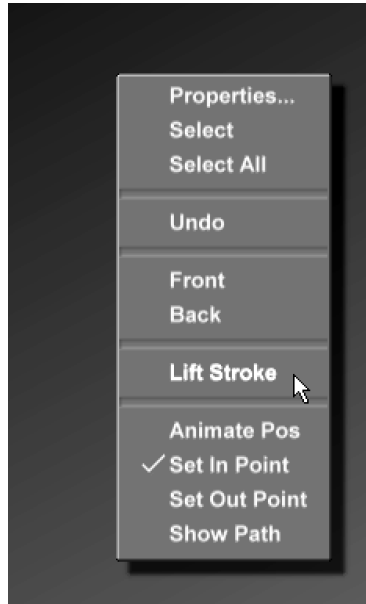
In the workspace, you see a stroke covering the entire workspace.

19. Select the stroke you just drew by clicking the **Select** button in the Stroke Controls (following figure) and then clicking anywhere on the stroke.



The Select Button

20. Right-click anywhere on the stroke and choose **Lift Stroke** from the pop-up menu (following figure).



Choosing Lift Stroke from the Pop-Up Menu

NOTE The **Lift Stroke** function only works to lift strokes on the currently selected layer.

21. In the workspace, it appears as if the stroke you right-clicked on has disappeared. In actuality, every stroke underneath the stroke you clicked on was “lifted” onto the stroke. This means that this stroke is now a copy of everything underneath it. If you wish, you can copy any group of objects onto a single stroke by repeating these steps with your own strokes in the workspace.

Now that you’ve “lifted” your graphic onto a single stroke, you’re almost finished with this tutorial. But first, you need to save that individual stroke.

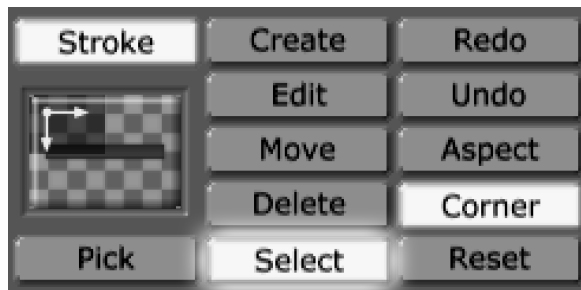
Saving The Graphic

When you save a Panamation project, typically you click-and-drag the workspace picon into a bin, saving the entire project. Since you only want to save an individual object in the workspace, you'll save it a little differently.

Remember, any individual stroke in the workspace can be saved this way.

To save the graphic, follow these steps:

1. Click the **Select** button in the Stroke Controls (following figure) so that it is selected.



The Select Button

2. Select the stroke you just created by clicking in the workspace. Since the stroke you just created fills the entire workspace, you can click anywhere.

In the workspace, you see a bounding box around your stroke, indicating that it is selected.

3. Click-and-drag the stroke into the bin directory **GlobeCaster/Bins/Panam/Projects**.

Saving your project in this bin makes it easier to locate it when you use it later to create an animated wipe with graphics.

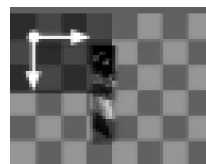
You see a pop-up menu appear (following figure) that asks which format you wish to save the graphic in.

4. Choose **Save** from pop-up menu.



Choosing Save from the Pop-Up Menu

5. This saves the graphic as a Panamation object. If you were saving a graphic that you wanted to import into another program, this menu is where you would choose the format.
6. Check to make sure that your graphic is saved. You should see this picon (following figure) in the bin you dragged the graphic into.



The Saved Graphic's Picon

If you do not see the saved graphic's picon in the bin, repeat the steps for saving the graphic.

You now have a saved version of the graphic you created. This graphic can now be dragged-and-dropped into the Panamation workspace at any time. Be sure to save this graphic, as you'll be using it in another tutorial in this chapter (see "Creating Animated Wipes With Graphics" on page 76 of the Tutorial manual for more information about this tutorial). In that tutorial, you will create a

wipe with a graphic (your flag graphic) that wipes away one video source, transitioning into another.

For more tutorials using Panamation, see the *GlobeCaster Tutorials Manual*.



Panamation Appendices



Appendix 1: Keyboard Commands

Keyboard commands are a cool way to navigate through applications and perform functions with near light-speed swiftness. In this appendix, you find keyboard commands for Panamation:

Ctrl + Z	Undo
Ctrl + U	Undo
Delete	Undo
Ctrl + A	Redo
Ctrl + Delete	Redo
Ctrl + F12	Perform a Air Command cut from Preview to Program source
F1 to F8	Select a program out source from inputs 1 through 8
F9	Selects Mat1 as the program out
F10	Selects FS1 at the program out
F11	Selects FS2 as the program out
F12	Selects Out as the program out
Shift + Left Arrow	Previous frame
Ctrl + F2	Previous frame
Shift + Right Arrow	Next frame
Ctrl + F3	Next frame
Ctrl + F9	Clears all strokes from the workspace
Esc	Turns on the Safe Area
Home	Zoom in on the workspace
Page Up	Zoom out on the workspace
Ctrl + C	Copy a stroke's properties
Ctrl + V	Paste a stroke's copied properties

Arrow Keys	Move selected object
Ctrl + Arrow Keys	When creating a text stroke, adjusts the kerning for the next character
Ctrl + Tab	Refreshes the workspace and redraws all objects
Ctrl + Back Space	When working with a spline, completes the spline shape
Enter	When working with a spline, completes the spline shape

Appendix 2: Troubleshooting Guide

One of the most important questions to ask yourself when troubleshooting is what has changed since the system last worked correctly? This question applies to both hardware and software. Sometimes it's the smallest change to the system that causes everything to stop operating properly. When troubleshooting, remember that the GlobeCaster software relies on a correctly functioning PC. If the PC is not working correctly or does not meet the minimum requirements for a GlobeCaster system, then it could affect the GlobeCaster software or VideoNet drivers and cause unpredictable results.

This section is a troubleshooting guide to problems and possible solutions for Panamation.

The following topics are covered in this appendix:

- Troubleshooting Panamation 381
- Frequently asked questions 381

Troubleshooting Panamation

When I load a still or paint on the workspace I can't see it on my program monitor.

Right click on the workspace border, select **Properties**, turn on **Video** (to see on the video monitor what you are doing in Panamation) and turn on **Alpha** (to key the images over live video).

When I use the spline tool to cut out an object, I right-click and choose **Complete Shape** and choose **Lift Stroke**. When I try to move it, it's a square rather than the shape I carefully traced.

Go to **Workspace Properties** and make sure **Video** and **Alpha** are turned off.

Frequently Asked Questions

Is image processing also a part of GlobeCaster?

Yes! Panamation includes a collection of sophisticated image processing functions, all of which can be applied with any stroke or brush, including the real-time airbrush. Image processing tools include; lighten, darken, emboss, monochrome, false color, contrast and gamma.

Can a still frame with an alpha channel (32-bit Targa file) be used in GlobeCaster?

Yes. Targa files with alpha channels can be brought into Panamation for manipulation. Panamation can easily extract the image from the background and save the resulting image as a native GlobeCaster file for use with GlobeCaster's applications.

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FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

