PHOTOANIMATOR™ 1.0 USER GUIDE

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Introducing PhotoAnimator

Welcome to Extensis™ PhotoAnimator™! PhotoAnimator is an exciting, full-fledged yet affordable animation package that will change forever the way you create and work with Web animations.

While other GIF animation software packages are simple frame compilers, PhotoAnimator is a professional animation sequencer. No more carving effects and cropping frames by hand—with PhotoAnimator you can do it painlessly! Simply import the raw elements designed in Photoshop®, then scale, rotate, flip, move, repeat, or invert each image right in PhotoAnimator. Create instant transition effects such as fade, wipe, merge, and barn door. Specify on-the-fly over how many frames your imaging or transition effects will occur. And because file size and color palettes are optimized automatically, you can be sure that PhotoAnimator will produce the smallest file size possible.

No matter what your skill level, PhotoAnimator will dramatically reduce the time and effort needed to create high-quality GIF animations—and let you have fun while you're doing it!

System and Software Requirements

To install and use PhotoAnimator, you will need the following:

Macintosh:
- Power Macintosh® or equivalent
- Mac OS® System 7.5 or higher
- 8MB free hard disk space for PhotoAnimator, the PhotoAnimator User Guide PDF, and Tutorial Sample Files

Windows:
- PC with Pentium processor or faster
- Microsoft® Windows 95® or Windows NT® 4.0
- 8MB free hard disk space for PhotoAnimator, the PhotoAnimator User Guide PDF, and Tutorial Sample Files

Installation

By default, the installer will place PhotoAnimator, the User Guide, and the Tutorial Sample Files in the following locations:

Macintosh:
- Application and User Guide—Hard disk: PhotoAnimator™ 1.0
- Tutorial Sample Files—Hard disk: PhotoAnimator™ 1.0: Tutorials
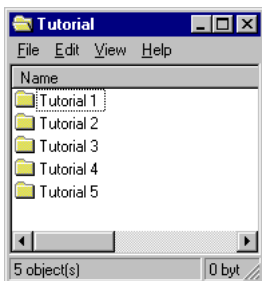
Windows:
- Application and User Guide—C:\Program Files\Extensis\ PhotoAnimator™ 1.0
- Tutorial Sample Files—C:\Program Files\Extensis\ PhotoAnimator™ 1.0\Tutorials

Registration

If you would like to personalize your copy of PhotoAnimator you can purchase a serial number by calling Extensis Customer Service at (503) 274-2020.

If you choose not to personalize your copy, PhotoAnimator will run in fully-functioning demonstration mode allowing you to use the product for 30 days.

Technical Support

For questions regarding Extensis PhotoAnimator, please first refer to this manual, which describes program features and basic operations. We invite you to visit our PhotoAnimator page on the Extensis website (www.extensis.com) for frequently asked questions and trouble-shooting tips.

If you have a question which is not addressed in this manual or on the Extensis website, Technical Support is available by phone at (503) 274-7030, Monday through Friday, 8:00 a.m. to 5:00 p.m. Pacific time. When calling for technical support, please be at your computer and have the following information available: your Extensis PhotoAnimator registration number, your computer configuration, and your question or a description of the difficulty you're experiencing—what specifically occurs and when. Take note of any displayed error numbers or messages and any other information you think may be relevant.

Suggestions

We'd love to hear your comments about Extensis PhotoAnimator! For your convenience, a suggestion sheet is included at the end of this manual. Please fax, mail, or e-mail your comments and suggestions to Extensis.

Tip

We can also be reached by:
Fax: (503) 274-0530
E-mail: support@extensis.com
Internet:
http://www.extensis.com/support

PhotoAnimator Overview
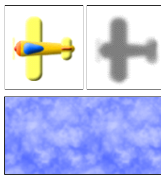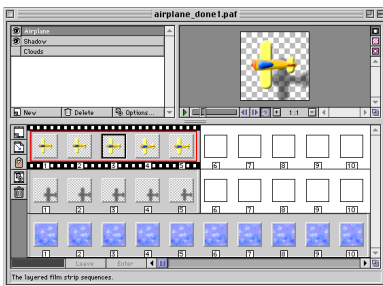

Gather Raw Elements

Apply Unlimited Special Effects
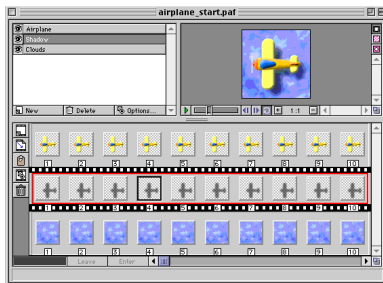
Instant Animation!

Extensis PhotoAnimator helps you create stunning and exciting animations with almost no effort. You start with raw animation elements saved either in native Photoshop format (.psd), or as GIF images (.gif), then use PhotoAnimator's intuitive tools to add special effects to create the animation. Or import existing animations and use PhotoAnimator to enhance them. No matter what images you start with, just follow these few steps:

1) Open PhotoAnimator and specify a display size for the animation.
2) Import raw animation element files (.psd, .gif).
3) Apply special effects and play back your animations as you design them. Loop your sequences or play them frame by frame—you can even use multiple windows to compare and contrast effects—until you achieve just the effect you want.
4) When the design is complete, export out as a GIF Animation.

Unlike frame-by-frame animation programs, PhotoAnimator allows you to use layers and to apply effects to resizeable cells. You can animate each layer independently, and combine them however you like. With PhotoAnimator you have the freedom to edit your animations to your heart's content, previewing as you create them, rather than being limited to viewing the results after all the frames have been created.

Each animation layer can have multiple cells, and each cell can have its own effect applied to it. PhotoAnimator automatically generates the specified effect over a range of cell frames. You can easily expand or contract the number of frames in a cell, and PhotoAnimator will automatically recalculate the effect for the entire cell.

By combining PhotoAnimator's special Image, Mask, Transition and Filter effects like scale, rotate, spin, fade, wipe, barn door, gradient mask, and invert, the possibilities for striking and professional-looking animations are virtually endless.

We think you'll find Extensis PhotoAnimator a natural tool for Web animations, and an invaluable tool in your creative arsenal. If you have questions, comments, or suggestions, please contact us at our Web site, http://www.extensis.com, or at the location listed on the inside front cover of this User Guide.

PhotoAnimator Tools

The PhotoAnimator window is the primary window, containing three separate panes: the Layers Pane, the Preview Pane, and the Filmstrip Pane.

Layers Pane: Displays all the layers available for the animation. Each layer can contain from one to 300 animation frames. This pane functions similar to the Photoshop Layers palette, allowing you to create, name, hide, delete, and reposition layers.

Preview Pane: Displays a preview of the animation. This preview is always available and can be viewed from any dialog box as you work with animation effects.

Filmstrip Pane: Displays the cells and frames that make up the animation. Layers in this pane correspond to the layers in the Layers pane. This pane also provides access to tools and options for working with the cells, frames, and images.

PhotoAnimator window

A PhotoAnimator Title Bar: Displays the file name of the animation.

B Preview Pane: Displays a preview of the animation which is always avail-able and can be viewed from any dia-log box as you work with animation effects. This pane also provides access to tools and options for work-ing with the preview. *See page 8 for more information.*

C Image Preview: Displays the anima-tion and all visible layers.

D Layers Pane: Lists animation layers. Functions like the Photoshop Layers palette, allowing you to create, name, hide, delete, and reposition layers. *See page 8 for more information.*

E Grow Bar: Click and drag up or down from the center to enlarge or reduce the Filmstrip pane, allowing you to show or hide layers.

F Filmstrip Pane: Displays the cells and frames that make up the animation. Layers in this pane correspond to the layers in the Layers pane. This pane also provides access to tools and options for working with the cells, frames, and images. *See page 9 for more information.*

G Flicker Help Box: Displays a descrip-tion of each tool or button function as the mouse passes over it.
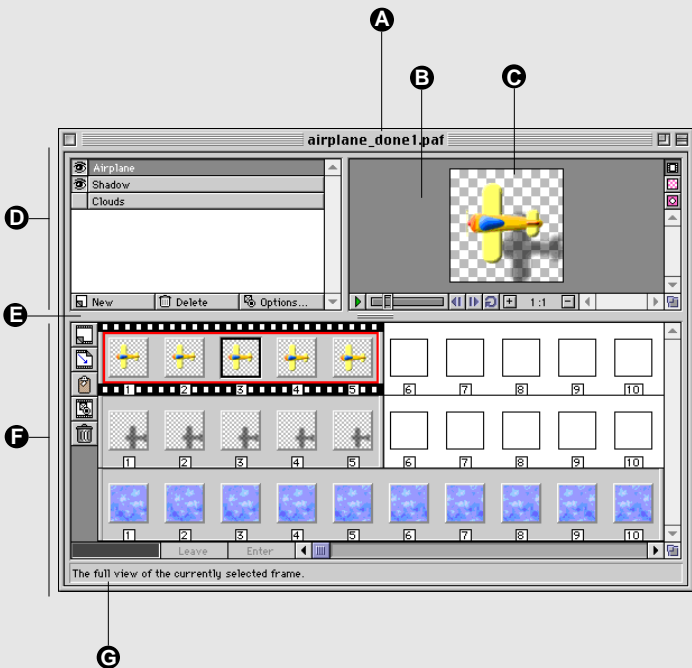
PhotoAnimator window—Layers Pane

A Layer Name: Displays the layer by name. Highlighted name indicates the currently active layer in the Filmstrip window. Drag the name up or down the list to reposition the layers.

B Show/Hide Layer: Determines whether a layer is visible in the animation image in the Preview pane. Eye icon indicates showing, no Eye icon indicates hidden. Only layers with an Eye icon present will be included in the animation when it is exported.

C New Layer: Click to create a new (empty) layer.

D Delete Layer: Click to delete the selected layer.

E Layer Options: Change layer name; make visible or invisible.

PhotoAnimator window—Preview Pane

A Preview: Displays the full animation sequence when the Player is on. Displays the contents of the currently selected frame when the Player is off. Display is affected by the settings of the layer Show/Hide buttons.

B Start/Stop: Press to start and stop the animation. *You can also press the Spacebar to start and stop the animation.*

C Animation Player: Drag the slider to interactively move through the full animation (affected by Layer settings).

D One-step buttons: Click back and forth through the animation one frame at a time.

E Loop: Places the Player in continuous-play mode when depressed.

F Zoom: Click "+" to Zoom In (enlarge the Preview), click "-" to Zoom Out (reduce it).

G Display Composite: Displays the composite preview of all visible layers of the current frame.

H Display Frame: Displays contents of the currently selected frame only.

I Display Transition: Displays currently selected frame transition.
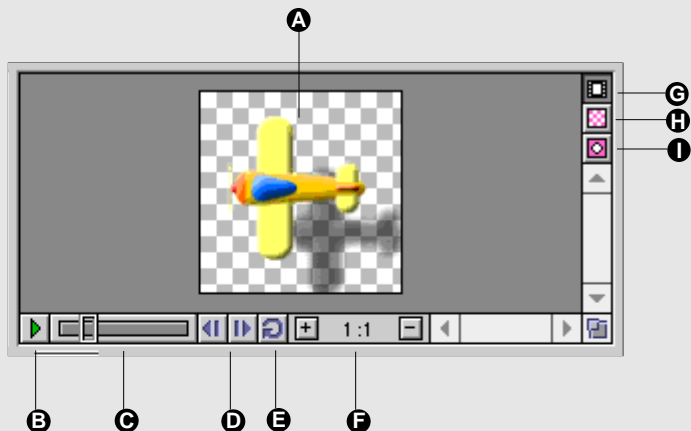
PhotoAnimator window—Filmstrip Pane

A New Cell: Click to create a new (empty) cell in the selected layer.

B Import Image: Click to create a new cell in the selected layer and import an image directly into it. Automatically displays the appropriate Import Options dialog.

C Clipboard Icon: Cut an animation cell by dragging it to the clipboard icon. Paste the cell by dragging the clipboard icon to the desired location. To copy the cell, **Option+drag** (Macintosh) or **Alt+drag** (Windows).

You can also cut or copy to the clipboard using the standard cut, copy, and paste commands. Pasting the cell places it at the end of any existing cells in the layer.

D Open Effect Settings: Click to open the Effect Settings dialog for the currently selected cell. *You can also double-click the cell to access the Settings dialog once an effect has been applied.*

E Trash Icon: Delete (remove) the selected cell.

F Frame: 300 maximum frames per layer. Black border indicates currently selected frame.

G Animation Cell: Consists of one or more frames. Filmstrip outer border indicates currently selected layer. Red inner border indicates currently selected cell.

H Empty Cell: Shows a one-frame wide empty cell.

I Cell End Marker: Drag to increase or decrease number of frames in a cell.

J Frame place-holder: Empty position; contains no frame or cell.

K Redraw progress bar: When complete, indicate entire animation is loaded into memory.

L Flicker Help Box: Displays a description of each tool or function as the mouse passes over it.

M Leave/Enter: Enter or exit the Nested Sub-Animation work area.

N Animation Layers: These correspond to the layers listed in the Layers Pane *(see page 8)*.
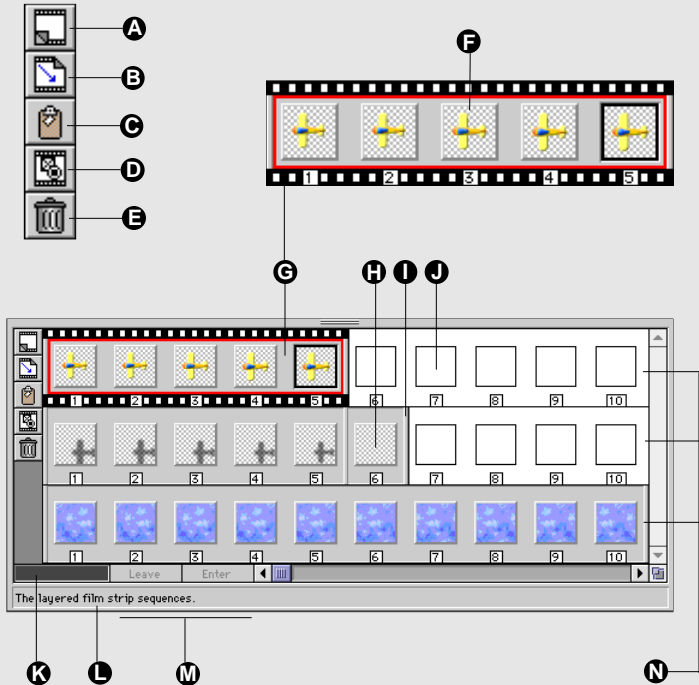
Frame: A single image; the smallest unit in PhotoAnimator. Frames contain raw images. Maximum 300 frames per Layer. Multiple frames make up a cell.

Cell: Consists of one or more frames. All the frames in a cell contain the same image. Animation effects are applied to cells. The effect may change the image gradually between the first frame of the cell and the last frame of the cell, to create the piecs of the total animation, such as transitions from visible to invisible, horizontal or vertical movement over time, spins, etc.

Layer: Consists of one or more cells. Layers are combined to create the full animation. A background layer, for example, might consist of a single cell with multiple frames with no effects applied to the image. A background layer would typically be the bottom layer. An animation layer, such as a filmstrip showing a stunt plane in action, would typically be the top-most layer. The animation layer might contain a number of different cells with a different effect applied to each cell. When the cells are played in succession they would simulate the movement of the plane: scaling to show to perspective (movement far to near), rotation to simulate spinning, etc. An example of this effect is shown in Tutorial 1, which starts on *page 22*.

Effects: Effects allow you to create the illusion of movement. Effects are applied to cells. Because they simulate movement, effects are typically applied to cells containing more than one frame, and may affect the individual frames within the cell differently. Effects are accessed from the Effect menu in the menu bar.

Animation Player: The animation Player, located on the Preview Pane, controls the image in the Preview window. The Player allows you to play back the animation in a continuous loop or frame by frame. Another Player, available from the dialog box of each of the Effect Settings, allows you to step through the animation sequence of a single cell. By hiding and showing layers and then stepping one by one through the frames of a single cell, you can see how your Effect Settings on that cell will affect the overall animation.

Animation

Frame Size…	⌘F
Frame Rate…	⌘G
New Layer…	⌘L
Delete Layer	
Layer Options…	
New Cell	⌘K
Delete Cell	
Resize Cell…	

Animation Functions and Settings

Frames: Two Animation settings—Frame Size and Frame Rate—allow you to specify how large the display window for your animation will be, and to how quickly or slowly the frames will play. The Frame Size dialog can also be opened by pressing **Command+F** (Macintosh) or **Control+F** (Windows). Access the Frame Rate dialog with **Command+G** (Macintosh) or **Control+G** (Windows).

Layers: From the Animation menu you can create, delete, and rename layers, and specify whether the selected layer is visible or invisible. A filmstrip border indicates the currently selected layer. Layer options can also be invoked using the buttons on the left side of the Layers Pane *(see page 8)*.

Cells: From the Animation menu you can create and delete cells, and specify cell size. A red outline indicates the active cell. Cell options can also be invoked using buttons and sliders on the Filmstrip Pane *(see page 9).*

Tip

To create a new Layer, press **Command+L** (Macintosh) or **Control+L** (Windows).

To create a new Cell, press **Command+K** (Macintosh) or **Control+K** (Windows).

Frame Size and Frame Rate Settings

A Frame Size Settings

B Width and Height: Enter custom frame size, in pixels.

C Common Sizes Buttons: Select from eight commonly used sizes. Clicking a size button enters the selected size into the Width and Height fields.

D Cancel: Close the settings dialog without making any changes.

E OK: Close the settings dialog and apply the changes.

F Frame Rate Settings

G Total Frames: Displays the total number of frames in the animation.

H Frame Rate (Frames/Second): Enter the desired frequency in frames per second.

I Duration (in Seconds): Displays the duration of the animation based on the number of frames and the specified Frame Rate.
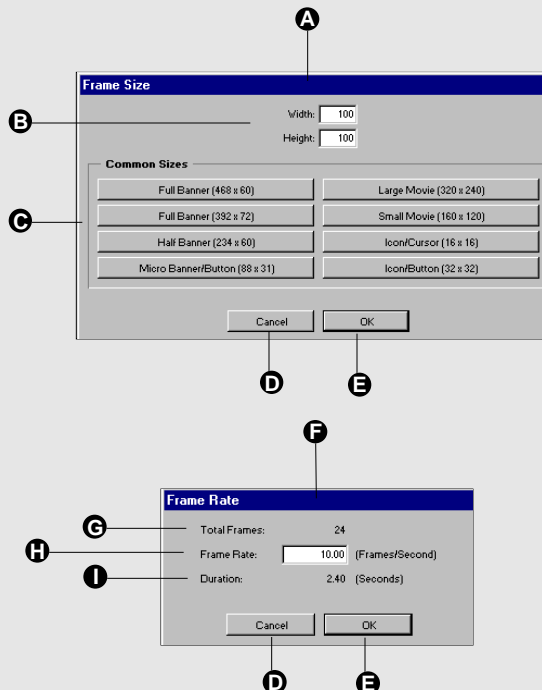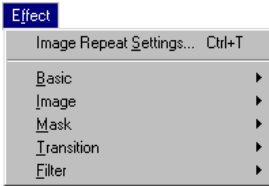
Effect Settings

PhotoAnimator provides five categories of effects (Basic, Image, Mask, Transform, and Filter) that allow you to scale, rotate, spin, apply gradient masks, invert, and more. By combining these effects on different images over various size cells, the possibilities for unique and eye-catching animations are unlimited.

All of the Effect Settings dialogs allow you to temporarily apply the effect and preview the result on your animation without ever leaving the settings dialog. This gives you tremendous freedom to try out different effect settings and test your results without endlessly going back and forth between the settings dialog and the Preview Pane.

To create an Effect:

1. **Select a frame and open the effect you are interested in by accessing it from the Effect menu.**

   Effect options are described on *pages 15 through 18*.

2. **When you have the effect you want, click "OK" to apply the effect and close the dialog.**

To Preview the Effect without closing the Effect Settings dialog:

1. **Move your windows around until you can see both the Preview pane of the PhotoAnimator window and the Settings dialog.**

2. **In the Settings dialog, click "Apply" to temporarily apply the effect.**

3. **Move the slider on the player in the Settings dialog box the see the effect on the selected cell in the Preview Pane.**

4. **If you don't like the effect, click "Revert," or change the settings, or click "Cancel" to close the dialog without making any changes to the cell.**

Repeat Last Settings
Once you have set an effect for a frame, that same effect can easily be applied to other frames. To repeat an effect, either drag the cell border to the right, which instantly replicates the frame (thereby replicating the effect), or select or create a new frame, then select the first item on the Effect menu. The default setting for newly created cells is "Image Repeat Settings."

Tip

You can access the last-used effect by pressing **Command+T** (Macintosh) or **Control+T** (Windows).

Common Effect Settings

The ability to preview your cell effects on the animation without closing the dialog (controls **G** through **K**) is common to all the Effects. Other controls shown here may not be found in all Effect dialogs.

A Import: Click to import an image into the selected cell.

B Export: Click to export the selected cell.

**C** Orientation Preview: Displays the current orientation of cell contents. Changes made to the Orientation controls affect this Preview. *Note:This is not an animation preview window.*

D Orientation Controls: Click the appropriate arrow to change the orientation of cell contents.

E Scale Settings: Specify Horizontal and Vertical "From" size "To" size, as a percentage of original size.

F Location: Displays a proxy of the location (relative position) of the content in the first frame of the cell. Drag the proxy to specify a new starting location, or enter coordinate values. *See page 14.*

Move To Location: Click to allow frame contents to be repositioned as the cell progresses from first frame to last. Drag to specify the frame ending location, or enter coordinate values. *See page 14.*

G Player: Move the slider to see the current Effect Settings on the selected cell. Click the right and left arrows to move forward and backward through the cell one frame at a time.

H Revert: Revert settings to the last-saved state (undo Apply).

I Apply: Click to Apply the settings in order to preview the effect.

J Cancel: Click to close the dialog box without making any changes to the frame.

K OK: Click to Apply the effect and close the dialog box.

L Animation Preview: This is the Animation Preview pane of the PhotoAnimator window. Look here to view the animation as you operate the Player in an Effect Settings dialog.
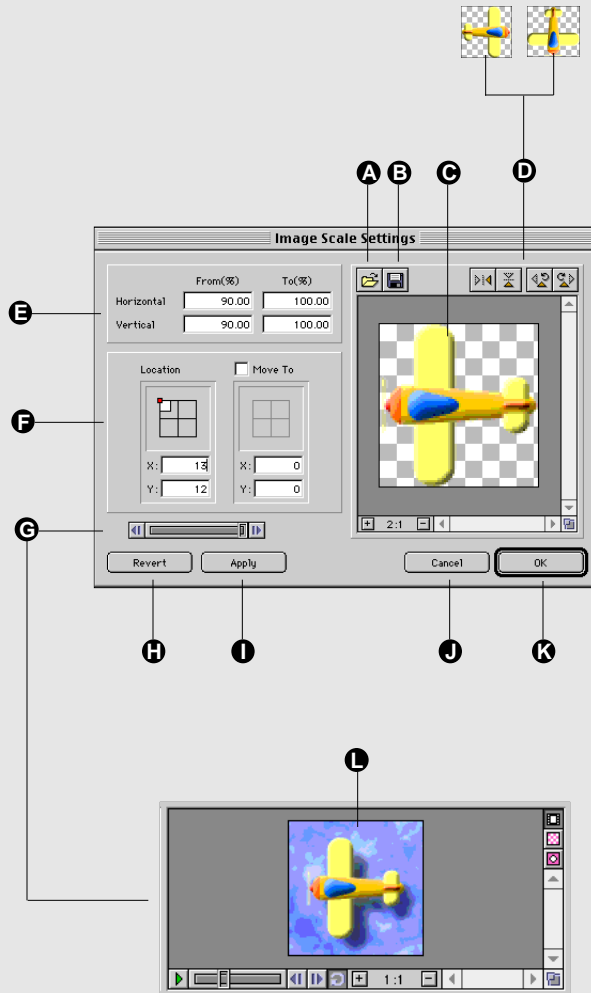
Location Settings and Frame Content Proxies

The Location Settings allow you to use a proxy to indicate the relative position of frame contents in the first frame of the cell, and if "Move To" is enabled, the last frame of the cell. PhotoAnimator automatically adjusts frame content movement between the other frames in the cell.

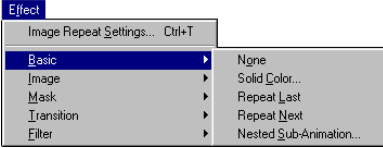**A** Location Settings: Indicates frame content starting and ending location in the cell.

B Location: Displays a proxy of the relative position of frame contents in the first frame of the cell. If no "Move To" location is specified, Location proxy indicates position of frame content in all frames of the cell. Drag proxy to adjust frame content starting location.

C "Move To" Enable: Click to access Move To location controls.

D Move To: Displays a proxy of the relative position of the content in the last frame of the cell. Drag proxy to indicate frame content ending location .

E Frame Grid: Representation of frame area as a square grid.

F Proxy: Red box sets the position point of frame content relative to the frame. White box represents actual frame content location in (or even outside of) the frame. *(See **K** through **O** for additional information.)*

G X and Y Offsets: Indicates frame content offset from from proxy (red box), in pixels. *(See also **O**).*

H Preview Controls: Allows you to preview effects without leaving the dialog. *(See page 8.)*

I Cancel: Click to close the dialog box without making changes.

J OK: Click to Apply the effect and close the dialog box.

K Proxy: Indicates upper-left corner of image is positioned in upper-left corner of frame.

L Proxy: Indicates lower-right corner of image is positioned out of the frame in the upper-left corner.

M Proxy: Indicates upper-left corner of image is positioned in center of frame.

N Proxy: Indicates center of image is centered in frame.

O Proxy Offset: Indicates center of image is centered in frame, then offset 30 pixels right and 30 pixels down.

Effect

Image Repeat Settings... Ctrl+T	
Basic ▶	None
Image ▶	Solid Color...
Mask ▶	Repeat Last
Transition ▶	Repeat Next
Filter ▶	Nested Sub-Animation...
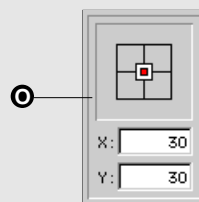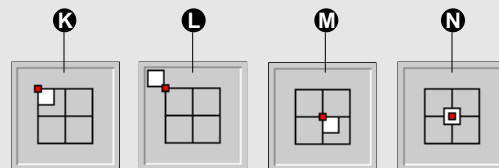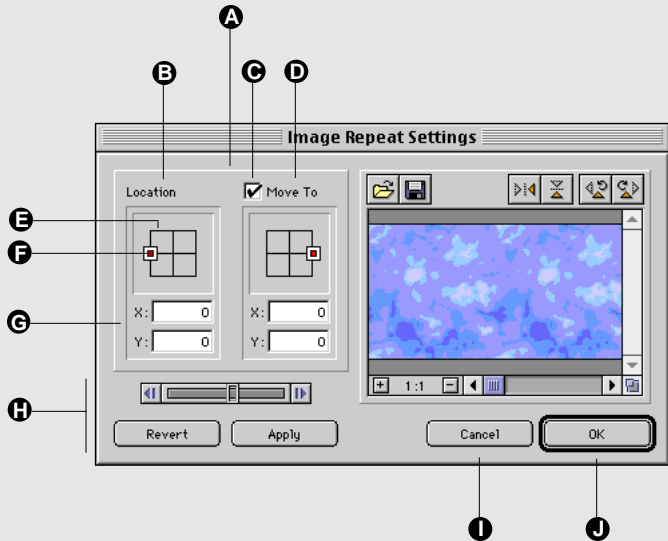
Basic Effects

Basic effect options include None (applies no effect), Solid Color, Repeat Last, Repeat Next, and Nested Sub-animation.

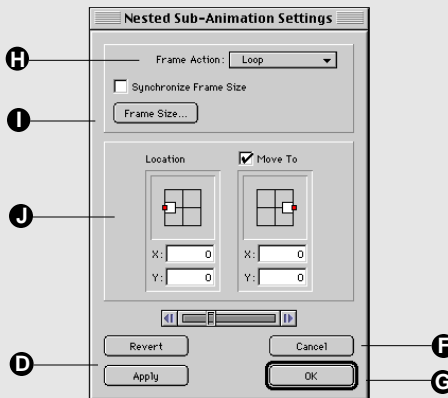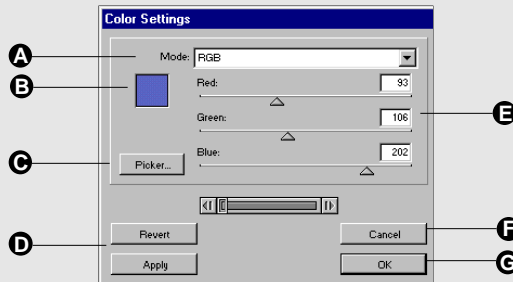*Note: For examples of Effects, refer to Tutorials 1 through 5 starting on page 22.*

Basic Effects—Color and Nested Sub-Animation

The Solid Color effect allows you to color in your frames with a solid color. When selected, the Solid Color effect replaces any image already in the frame with the selected color.

A Color Mode Pop-up: Select RGB, CMY, HSV, Grayscale, or Web.

B Color Preview: Displays a preview of the selected color.

C Picker: Access the system color picker.

D Preview Controls: Allows you to preview effects without leaving the dialog. *(See page 13.)*

E Color Settings: Move the sliders until the desired color appears in the Color Preview, or enter values directly.

F Cancel: Click to close the dialog box without making any changes to the frame.

G OK: Click to Apply the effect and close the dialog box.

Nested Sub-Animations

H Frame Action Pop-up: Select from Left Align, Right Align, Center Align, Left Repeat, Right Repeat, Center Repeat, Scale, Loop Modulate.

I Frame Size: Opens the Frame Size dialog *(see page 11)* to allow you to select or set frame size.

J Location and Move To Location: Allows you to specify starting and ending locations. *(See page 14.)*

Color Settings

Mode: RGB

Red: 93
Green: 106
Blue: 202

Revert   Cancel
Apply   OK

Nested Sub-Animation Settings

Frame Action: Loop

☐ Synchronize Frame Size
Frame Size...

Location   ☑ Move To

X: 0   X: 0
Y: 0   Y: 0

Revert   Cancel
Apply   OK

Effect	
Repeat Last Settings... Ctrl+T	
Basic	▶
Image	▶
Mask	▶
Transition	▶
Filter	▶

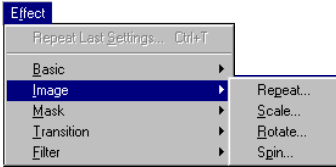Image submenu:
- Repeat...
- Scale...
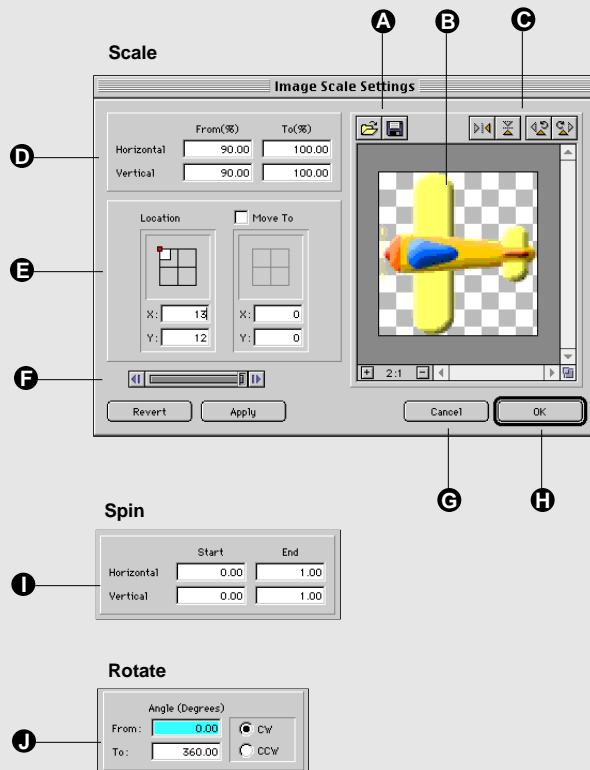- Rotate...
- Spin...

Image Effects

Image Effects (Scale, Rotate, Spin) allow you to progressively change the size and/or orientation of objects between the first and last frame in the cell.

Note: For examples of Effects, refer to Tutorials 1 through 5 starting on page 22.

Image Effects—Scale, Rotate, and Spin

Image Effects (Scale, Spin, Rotate) allow you to change the size and orientation of objects progressively between the first and last frame in the cell.

A Import/Export: Allows you to import an image into the selected cell or export the selected cell.

B Orientation Preview: Displays the current orientation of cell contents. Changes to the Orientation controls affect this Preview. *Note:This is not an animation preview window.*

C Orientation Controls: Click the appropriate arrow to change the orientation of cell contents.

D Scale Settings: Specify Horizontal and Vertical "From" size "To" size, as a percentage of original size.

E Location and Move To Location: Allows you to specify starting and ending locations. *(See page 14.)*

F Preview Controls: Allows you to preview effects without leaving the dialog. *(See page 8.)*

G Cancel: Click to close the dialog box without making any changes to the frame.

H OK:Click to Apply the effect and close the dialog box.

I Spin Settings: Specify how many revolutions the image will spin by entering a value in "End." Spin the image horizontally, vertically, or both. Image will appear to begin spinning in "midstream" by entering a value in "Start."

J Rotate Settings:Specify "From" Angle and "To" Angle (in degrees), and indicate Clockwise or Counter-clockwise rotation.
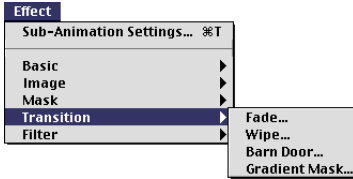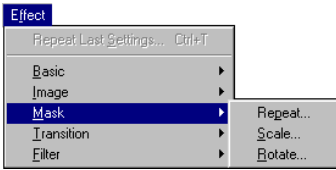
Mask Effects

Mask Effects (Rotate and Scale) allow you to use the contents of a frame as a mask, and change the size and orientation of the mask gradually between the first and last frame in the cell.
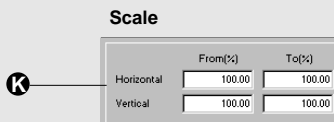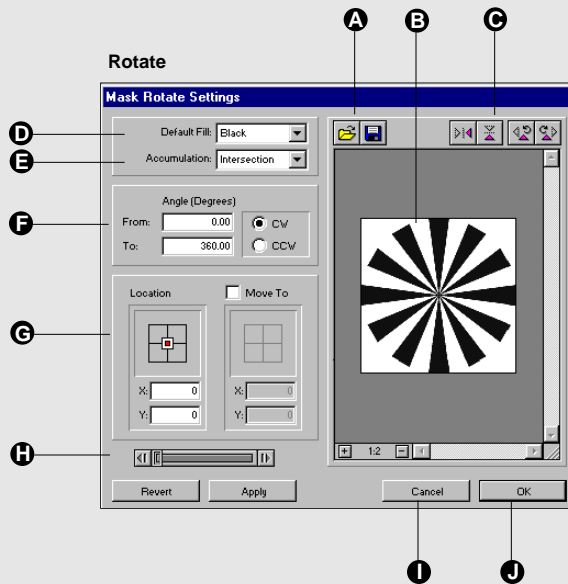
Transition Effects

Image Effects (Fade, Wipe, Barn Door, Gradient Mask) allow you to create gradual transitions between the first and last frame in the cell.

Mask Effects—Rotate and Scale

Mask Effects (Rotate and Scale) allow you to specify frame contents as a mask, and to change the size and orientation of the mask gradually between the first and last frame in the cell.

A Import/Export: Allows you to import an image into the selected cell or export the selected cell.

B Orientation Preview: Displays the current orientation of cell contents. Changes to the Orientation controls affect this Preview. *Note:This is not an animation preview window.*

C Orientation Controls: Click the appropriate arrow to change the orientation of cell contents.

D Default Fill Pop-up: Select Black or White as the Mask fill color.

E Accumulation Pop-up: Select Intersection or Union.

F Rotate: Specify "From" Angle and "To" Angle (in degrees), and indicate Clockwise or Counter-clockwise rotation.

G Location and Move To Location: Allows you to specify starting and ending locations. *(See page 14.)*

H Preview Controls: Allows you to preview effects without leaving the dia-log. *(See page 8.)*

I Cancel: Click to close the dialog box without making any changes to the frame.

J OK:Click to Apply the effect and close the dialog box.

K Scale Settings:Specify Horizontal and Vertical "From" size "To" size, as a percentage of original size.

Transition Effects (Fade, Wipe, Barn Door, Gradient Mask) allow you to create transitions between the first and last frame in the cell.

Fade, Barn Door, Wipe

A Accumulation Pop-up: Select Intersection or Union.

B Transition From and To: Specify transition as a percentage of original (0 to 100%).

C Transition Settings: Specify orientation, direction, and start-to-end preferences.

Gradient Mask

D Import/Export: Allows you to import an image into the selected cell or export the selected cell.

E Orientation Preview: Displays the current orientation of cell contents. Changes to the Orientation controls affect this Preview. *Note:This is not an animation preview window.*

F Orientation Controls: Click the appropriate arrow to change the orientation of cell contents.

G Direction Pop-up: Select Black to White or White to Black transition.

Mode Pop-up: Select None to All or All to None.

Edge: Changes intensity of mask.

H Preview Controls: Allows you to preview effects without leaving the dialog. *(See page 8.)*

I Cancel: Click to close the dialog box without making any changes to the frame.

J OK: Click to Apply the effect and close the dialog box.

Fade

Wipe

Barn Door

Gradient Mask

File
New...   Ctrl+N
Open...   Ctrl+O
Close   Ctrl+W
Save   Ctrl+S
Save As...
Save Template...
Revert
Import...   Ctrl+I
Export...   Ctrl+E
Exit   Ctrl+Q

Importing and Import Options

Within PhotoAnimator you can apply limitless special effects to images, but first you must bring those images into the Photo-Animator program. You do this using the Import command.

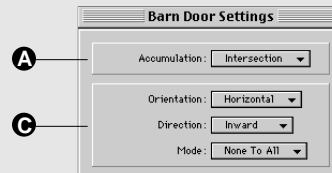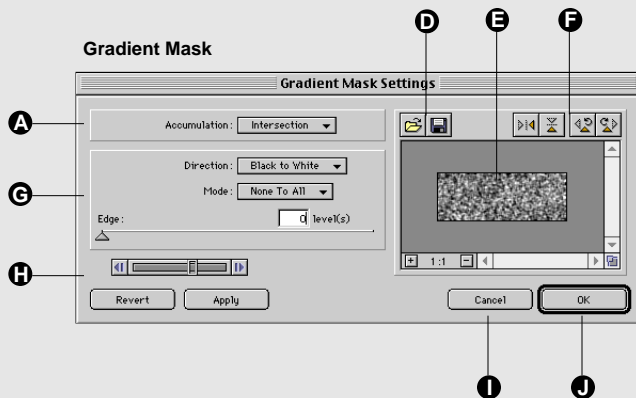You can import any graphic file saved in either Photoshop native format (.psd) or in GIF format (.gif). Imported files can be multi-frame or multi-layer files as well as single frame or single image files.
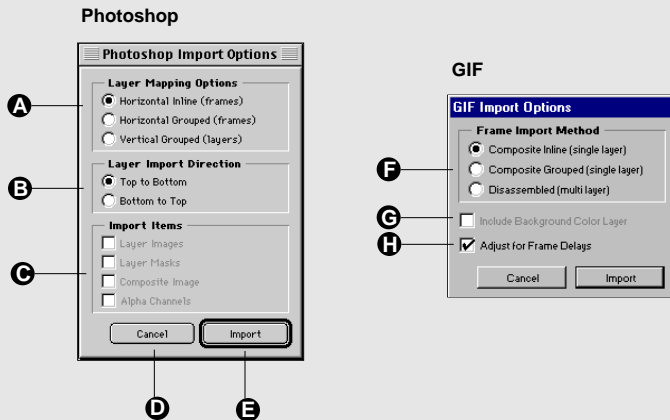
Tip

You can also Import images by pressing **Command+I** (Macintosh) or **Control+I** (Windows).

Import Options dialog

Photoshop File Format (.psd)

A Layer Mapping Options: Select from Horizontal Inline (Frames), Horizontal Grouped (Frames), Vertical Grouped (Layers).

B Layer Import Direction: Select from Top to Bottom or Bottom to Top.

C Import Items: Options are Layer Images, Layer Masks, Composite Image, and Alpha Channels.

D Cancel: Cancel the Import operation.

E Import: Import the image file using the current selections.

GIF File Format (.gif)

F Frame Import Method: Select Composite Inline (single layer), Composite Grouped (single layer), or Disassembled (multi-layer)

G Include Background Color Layer

H Adjust for Frame Delays: Imports additional frames to account for frame delay of imported GIF. For example, if you import a GIF that happens to have a frame rate of 6 Frames per Second, and a particular frame of the GIF was set to delay for 1 second, PhotoAni-mator will generate 6 cells to adjust for this delay.

Photoshop

Photoshop Import Options

Layer Mapping Options
- Horizontal Inline (frames)
- Horizontal Grouped (frames)
- Vertical Grouped (layers)

Layer Import Direction
- Top to Bottom
- Bottom to Top

Import Items
- Layer Images
- Layer Masks
- Composite Image
- Alpha Channels

Cancel   Import

GIF

GIF Import Options

Frame Import Method
- Composite Inline (single layer)
- Composite Grouped (single layer)
- Disassembled (multi layer)

☐ Include Background Color Layer
☑ Adjust for Frame Delays

Cancel   Import

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Exporting and Export Options

PhotoAnimator animations can be exported as GIF Animations (.gif), as Photoshop layers (.psd), or as PhotoAnimator templates. *(For more information on Exporting, see Tutorial 5 starting on page 59.)*

Note: Animations can also be saved in the normal way (using the Save and Save As... commands) as PhotoAnimator files (.paf).

Export Options dialogs

Export Options allow you to save animations in one of three ways: Animated GIF, Photoshop native format, and PhotoAnimator format.

A Format: Export options dialog for the Animated GIF format.

B Animation Preview: Allows you to preview how the animation will look in with the specified export options applied.

C Web Options: Dithering, Color Set, Maximum Colors, Interframe Transparency Option.

D Loop Options: Loop Forever, Play (specify number of times).

E File Statistics: File Size and Download Time are calculated based on the option settings when Calculate/Preview is initiated.

F Calculate/Preview: Click here to apply the indicated settings to the Preview.

G Cancel: Close the dialog without applying changes.

H Export: Exports the animation in the format indicated at the top of the dialog box, according to the indicated settings.

I Player: Allows you to preview the animation as it will appear when exported with the indicated settings.

J Preview Zoom: Click "+" to zoom in, click "-" to zoom out.

K Photoshop Format: Exports the animation in native Photoshop format.

L PhotoAnimator Format: Exports the animation in native PhotoAnimator format. Allows you to create an animation template.
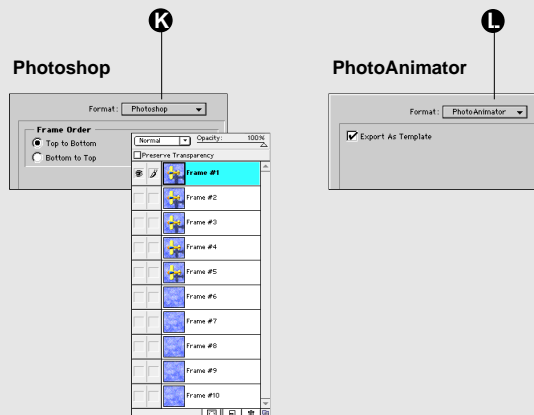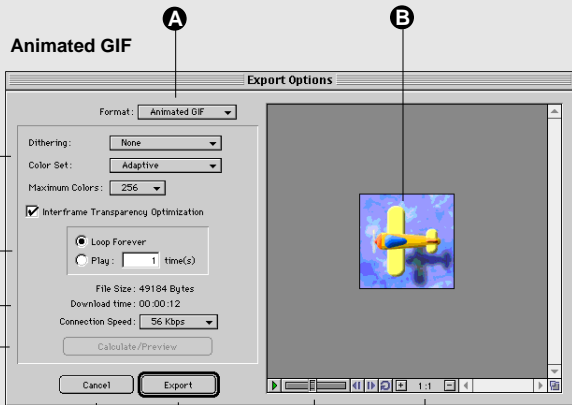
Preferences

Preferences affect some operations of the PhotoAnimator program.
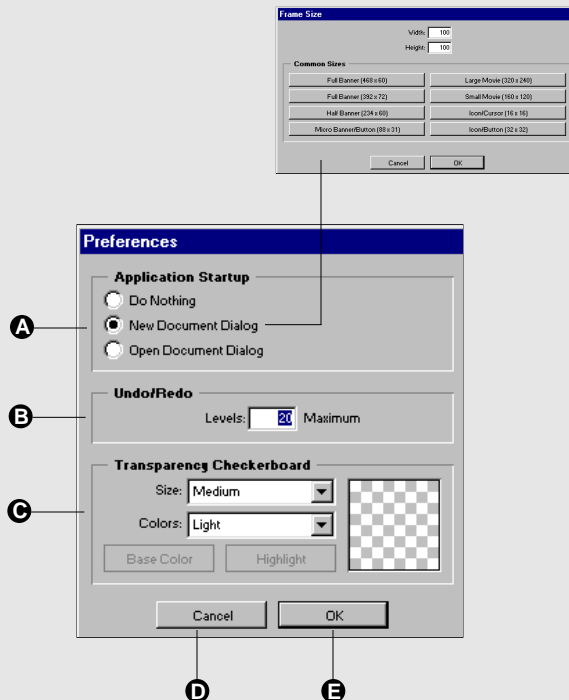
Application Start-Up: Use this preference to specify whether, when launched, PhotoAnimator queries you for a frame size to begin a new animation; presents the system's "Open File" dialog so you can open an existing animation; or simply opens without a document.

Undo/Redo: Undo operations require additional memory, so you would want to keep this number low if you have limited system memory. *(Maximum 100 levels of Undo.)*

Transparency Background: Select this option to change the color, brightness, and checker-pattern size of the transparency background in the animation Preview window.

Preferences dialog

A Application Startup: Controls the PhotoAnimator startup process.

Do Nothing: Open PhotoAnimator without a document.

New Document Dialog: When starting PhotoAnimator, present the PhotoAnimator "Frame Size" dialog. (This is the default.)

Open Document Dialog: When starting PhotoAnimator, present the File System "Open" Dialog.

B Undo/Redo: Specify maximum levels of Undo/Redo. The larger the number, the more system memory is required.

C Transparency Checkerboard: Allows you to specify the size and color of the Preview window background checkerboard.

D Cancel: Close the Preferences dialog without making any changes.

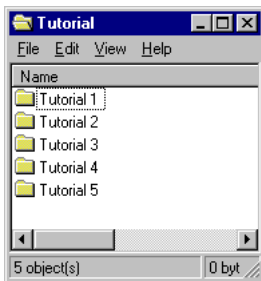**E** OK: Close the Preferences dialog and apply the changes.

Tutorial 1: Getting Started—Basic Animations

In this tutorial you will learn how to create a simple animation, while being introduced to the tools and operations available in PhotoAnimator. Once you're familiar with the program, we suggest you check out the rest of the tutorials starting on *page 32*. These tutorials will introduce you to some of the special effects possible with PhotoAnimator, and hopefully get you started immediately creating fun and eye-catching animations.

Airplane Animation

We're going to be creating an animation of an airplane flying over a cloudy sky. There are three components to this animation: an airplane, the airplane's shadow, and a cloudy sky.

First we'll make the cloudy background texture scroll seamlessly, then to complete our animation we'll make the airplane and its shadow bounce slightly up and down in relation to one another as if the airplane were encountering some turbulence.

1. **Open the file "airplane_start.paf" located in the Tutorial 1 folder by double-clicking its icon.** *(See page 4 for Macintosh and page 5 for Windows Tutorial folder locations.)*

   — or —

   Open the PhotoAnimator application, then click "Cancel" to close the New Animation dialog. Select "Open" from the File menu, and locate the "airplane_start.paf" file.

   At startup, PhotoAnimator (by default) assumes that you want to create a new document and displays the New Animation dialog box. This time we want to open an existing file, so click the Cancel button and open the file from the menu instead.

2. **Familiarize yourself with the PhotoAnimator window.**

   The PhotoAnimator window is divided into three panes. The top left pane is the called the Layers Pane and functions very similar to the Layers palette found in Adobe Photoshop. This is where you can create, name, hide, delete and reposition layers. *The Layers Pane is described in detail on page 8.*

   The top right pane is called the Preview Pane. From this pane you have access to what the animation looks like. The Preview is available at all times in PhotoAnimator, even from the dialog boxes where you apply animation effects.
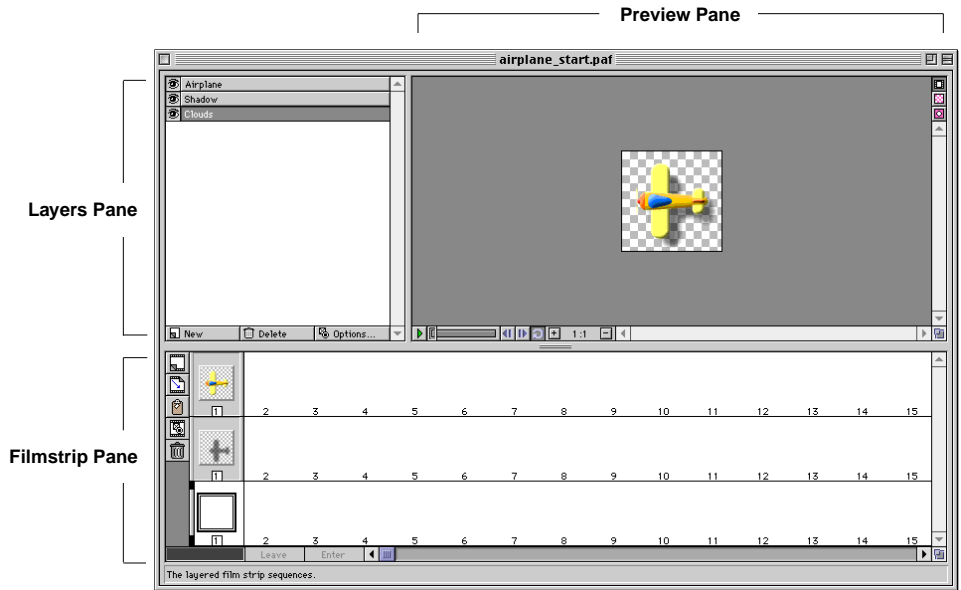
Layers Pane

Filmstrip Pane

From the Preview Pane you can play and stop the animation using the animation Player. Press the green arrow to start the animation. When the animation starts the arrow will turn red; press the red arrow to stop the animation. *The Preview Pane is described in detail on page 8.*

The bottom pane of the PhotoAnimator window is the Filmstrip Pane. This is where you will see your animation cells and frames. Each row in the Filmstrip Pane is called a Layer, and the Layers here correspond to the Layers in the Layers Pane above. *The Filmstrip Pane is described in detail on page 9.*

The horizontal divider between the top two panes (Layers and Preview) and the bottom pane (Filmstrip) allows you to adjust the size of the Filmstrip Pane so that you can see more filmstrip rows (layers) at a time. Simply drag the divider up or down. You can also adjust the size of most PhotoAnimator windows and dialog boxes using the grow button on the bottom-right corner of the window.

A Flicker Help Box at the bottom of the PhotoAnimator window displays a brief description of the buttons and functions in the window as you pass the mouse over them.

3. Add an image to the animation by Importing it.

Since there will be three elements in the animation, we created three layers—one layer to contain the animation effects for each of the three images. We already imported images into the "Airplane" and "Shadow" layers; now you will bring in the image of the clouds and place it into the "Clouds" layer.

- **Click the "Clouds" layer in the Layers Pane to select it, then select "Import" from the File menu.**

- **Locate the "clouds.psd" file in the "Tutorial 1" folder.**

  Note: PhotoAnimator works with only Photoshop native files and GIF images. You can use Photoshop, CorelDraw, or any number of image manipulation programs that can save images in either native Photoshop (.psd) or GIF (.gif) format.

- **On the Import Options dialog, leave the settings as they are (an image of this dialog is shown in the sidebar) and click "Import."**

  A clouds texture will be placed in the "Clouds" Layer, and will be displayed in the first frame of the first cell of the last layer (bottom row) in the Filmstrip Pane.

  Examine the Filmstrip and Layers Pane. Notice that when you select a layer in the Layers Pane, the corresponding layer in the Filmstrip Pane shows a cell highlighted by a filmstrip icon and a red rectangle. The filmstrip image shows you the selected layer; the red rectangle outlines the currently selected cell; and a black outline around the frame indicates the selected frame.

Tip
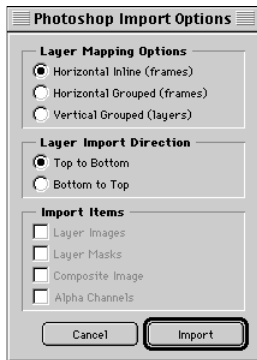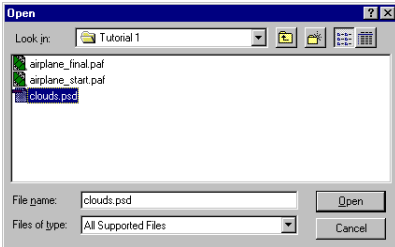
You can also import an image into an existing layer using the Import button on the Filmstrip Pane Toolbar.

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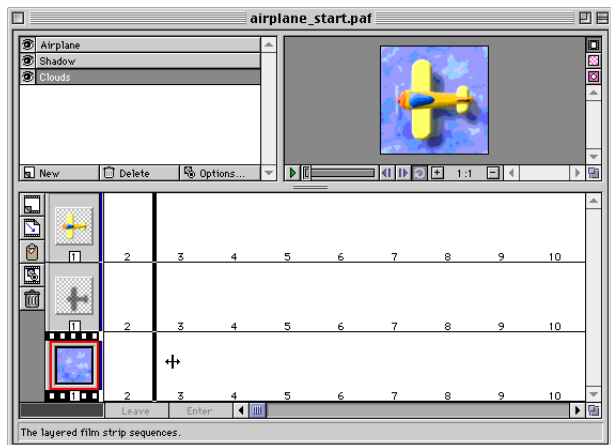
Also notice (in the Filmstrip Pane) that each of our three layers now has one cell, and each cell has one frame in it. Each frame contains one of the imported images.

If you examine the layers in the Filmstrip Pane you'll notice that they are in the same order as the layer names in the Layers Pane. By moving the layer names up and down the layers list you can reorder the layers and dramatically alter our effects.

Don't be too concerned if all this doesn't make a lot of sense right now—the connection between layers, cells, and frames will become more clear as you work on the animation.

4. **Now let's extend the clouds texture to make a longer sequence for our animation.**

    • **On the Clouds layer in the Filmstrip Pane, position your mouse on the right edge of the cell border. When the cursor changes to a double arrow, drag this border out just past the position numbered "10."**

    When you release the mouse you will see that PhotoAnimator has expanded the clouds texture over ten frames automatically.
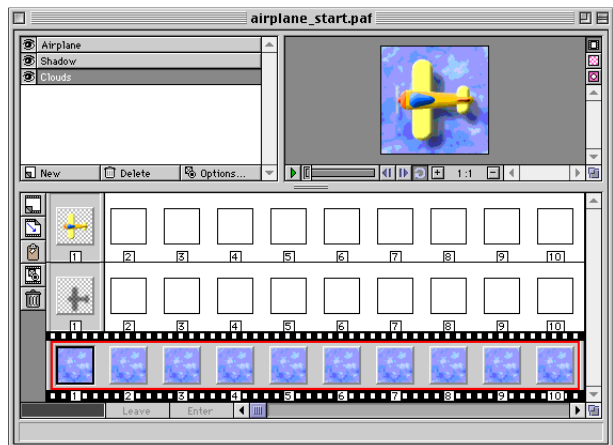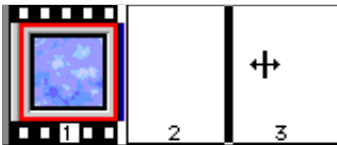
    Notice that now the red highlight rectangle includes all ten frames of the clouds texture. PhotoAnimator treats this group of 10 "frames" as one "cell." You can change the number of frames in a cell at any time by dragging its border to a new position.

    Note: You can increase or decrease the number of frames in a cell at any time by dragging the cell's right-hand border.

Any Effect Settings applied to the cell will include the newly created frames.

Click on a few of the frames one at a time and observe what happens in the Preview Pane. If you click on any frame other than the first frame, the airplane and the shadow will disappear. Clicking on frames 2 through 10 in any layer results in the same texture appearing in the Preview Pane.

5. Make the clouds appear to move across the sky.

The most important part of creating an animation is applying the special effects that make single-cell graphics look, well... animated! In PhotoAnimator there are a number of different types of effects you can apply to your images, and we'll touch on most of them over the course of these tutorials.

In our first effect, we'll show you how to simulate movement by having the clouds appear to move across the sky.

• **Isolate the cloud layer in the Preview so it will be easier to see the new effect on it: In the Layers Pane, click the eye icon for both the Airplane and Shadow layers so that the eye disappears.**
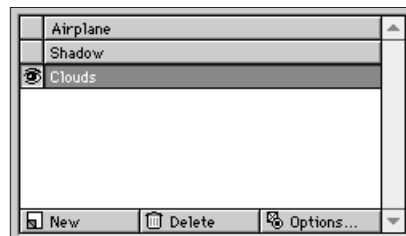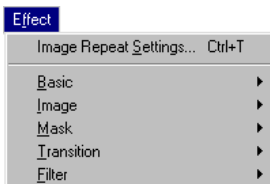
This hides the Airplane and Shadow layers, effectively iso-lating the Clouds layer.

• **Open the Effect Settings for the clouds texture image: In the Clouds layer of the Filmstrip pane, double-click on any frame in the clouds texture cell.**

This opens the "Image Repeat Settings" dialog box. All Image Settings are Effects (the other Effect categories are: Basic, Mask, Transition, and Filter).

By default, PhotoAnimator applies the Image Repeat Setting to all newly created cells. Image Repeat tells PhotoAnimator to do just that—repeat, or reproduce, the currently selected image in each frame of the cell.

Look carefully at the preview window in the Image Repeat Settings dialog box. Notice that the clouds texture is wider than the texture shown in the Preview on the PhotoAnimator window.
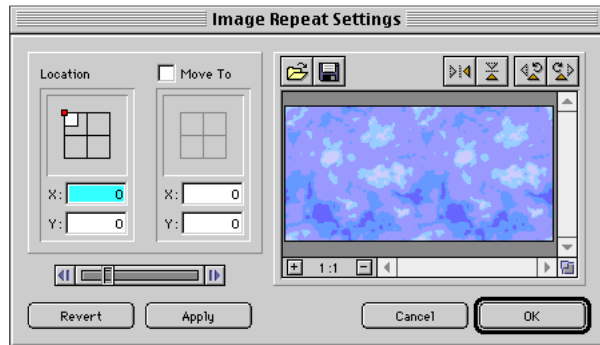
In fact, it is twice as wide. The frame size of this animation is 100 by 100 pixels, but the clouds texture we imported from the clouds.psd file is 100 by 200 pixels. We created the clouds.psd file as a "seamless" texture so that after we animate the texture, it will appear as if the airplane is flying over an endless stretch of clouds.
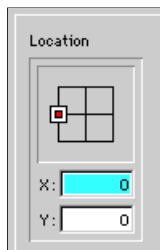
• **Set the start position for the clouds texture: Click on the small white proxy in the upper left corner of the "Location" field and drag it around the grid (both the white and red boxes will move). Position these little boxes over the left center grid point, so that the tiny red box is centered inside the white box.**

The red box sets the proxy, or position point of the image. The white box represents the location of the image. *See page 14 for a more complete description of this feature.*

- **Enable the "Move To" option by clicking its box (verify that there is now a checkmark in the box).**

  The proxies under Move To should now be available.

- **Drag the Move To proxies over the right center grid point, keeping the red box centered inside the white box.**
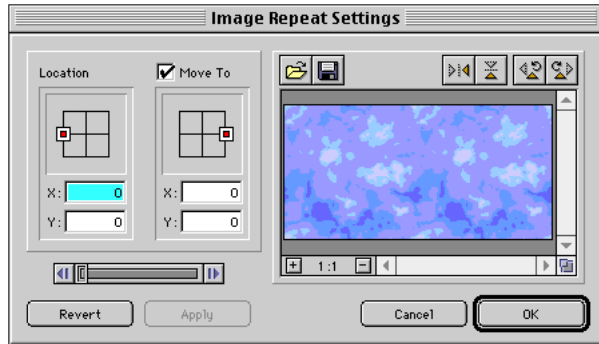
- **Move the Image Repeat Settings dialog box so that you can see both the Preview Pane on the PhotoAnimator window and the open Image Repeat Settings dialog.**

- **In the Image Repeat Settings dialog, click the "Apply" button to temporarily apply the effect to the cell.**

- **Now drag the slider on the Player in the Image Repeat Settings dialog (its above the Revert and Apply buttons) to the left and right. Watch the Preview.**

  The cloud texture in the Preview will move back and forth. The movement hasn't yet been permanently applied to the cloudy texture cell: Clicking the Apply button lets you Preview the effect on the overall animation without actually leaving the dialog box. At this point, if you were unhappy with the results of your effect, you could click the "Revert" button to undo the effect and start over. For now, just leave the effect the way it was.

- **When you've finished playing with your new effect, verify that the starting and ending locations for the cell frames are as shown above, then click "OK."**

  This closes the dialog Effect Settings dialog box and applies the effect to the cell.

🔁 **Click the "Loop Playback" button in the Preview Pane.**

  This puts the Player into continuous play mode.

▶ **Click the Play button (the little green arrow) or tap the Spacebar to play the animation.**

If you watch carefully, you will see that the cloudy texture loops seamlessly when the animation plays from the last frame to the first.

■ **Click the Stop button (the red square) or tap the space-bar again to stop the animation.**

6. **Now include the airplane and its shadow in the animation.**

Unhide the Airplane layer and the Shadow layer by clicking the Show/Hide box so that the eye icon is visible.

• **Select the Airplane layer by clicking on it either in the Layers Pane or the Filmstrip Pane.**

• **In the Filmstrip Pane, extend the airplane cell to 10 frames. Repeat this process for shadow cell, expanding it to ten frames as well.**

▶ **Preview the animation by pressing the Play button on the Animation Player. The airplane now appears to be flying over our cloudy sky.**

Not bad so far, but with PhotoAnimator we can easily make our animation more interesting. What you are going to do next is make the airplane appear to bounce up and down as it flies through the air. You will do this by adjusting the scale of the airplane and its shadow over time. When you are done, the airplane will appear to rise and fall. The airplane's shadow will appear to shrink as the airplane rises, and appear to grow as the airplane falls, mimicking how shadows act in the real world.

7. **Add some additional effects to the airplane, making it appear to encounter turbulence.**

You'll need to create another cell of airplane frames for the next effect, and you'll do that by copying and pasting the first cell in the same layer as the original.

• **Copy the five-frame airplane cell: Click in any frame of the cell to select it, then select Edit > Copy. Or use the standard keyboard shortcut [Command+C (Macintosh) or Control+C (Windows)].**

• **Without doing anything else, Paste the cell: Select Edit > Paste, or use the standard keyboard shortcut [Command+V (Macintosh) or Control+V (Windows)].**

Notice that the new cell was pasted to the right of the cell that was copied. PhotoAnimator assumes when you copy a cell that you wish to expand the animation of the copied image, and automatically places it in the proper sequence.

• **Repeat this process to create a second cell of the airplane Shadow image on the Shadow layer.**

When you are finished, the Airplane and the Shadow layers should each contain two five-frame cells.
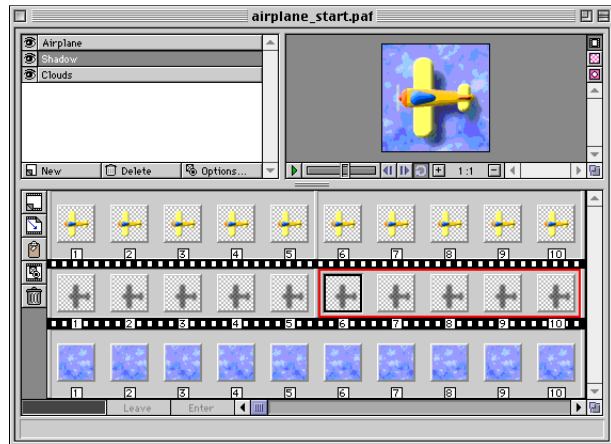
• **Select the first cell on the Airplane filmstrip layer, then select Image > Scale... from the Effects menu.**

This will open the Image Scale Settings dialog box.

Notice that we didn't instruct you to double-click the cell to open the Effect Settings dialog; that's because (as you may recall) the current settings for the cell are "Image Repeat Settings," and you want to apply a different effect to the cell.
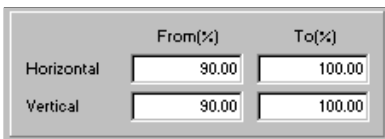
• **In the Image Scale Settings dialog for the first cell, set the Horizontal and Vertical values for the "From(%)" to 90.**

• **Click "OK" to apply the settings and close the dialog.**

• **Now select the *second* cell on the Airplane filmstrip layer, and again select Image > Scale... from the Effects menu.**

This opens the Image Scale Settings dialog for the second airplane cell.

• **Set the Horizontal and Vertical values for the "To(%)" to 90, then click "OK."**

	From(%)	To(%)
Horizontal	90.00	100.00
Vertical	90.00	100.00

	From(%)	To(%)
Horizontal	100.00	90.00
Vertical	100.00	90.00

 Now play the animation.

The airplane should appear to bob up and down, while the shadow remains constant.

8. **The next, and final thing you need to do is animate the airplane's shadow.**

    • **Select the first cell on the Shadow filmstrip layer, then select Image > Scale... from the Effects menu.**

    This will open the Image Scale Settings dialog for the shadow.

    • **In the Image Scale Settings dialog, drag the proxy to the center of the centerpoint of the Location grid, being sure to center the red box inside the white box.**

    • **Also set the Horizontal and Vertical values for the "To(%)" to 80.**
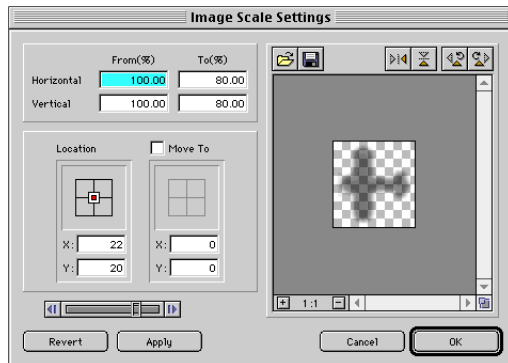
    • **Click "OK" to apply the settings and close the dialog.**

    • **Select the *second* cell on the Shadow filmstrip layer, then select Image > Scale... from the Effects menu.**

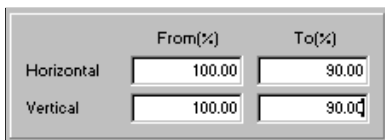   • **In the Image Scale Settings dialog, again drag the proxy to the center of the centerpoint of the grid, being sure to center the red box inside the white box.**

    • **This time, set the Horizontal and Vertical values for the "*From(%)*" to 80.**
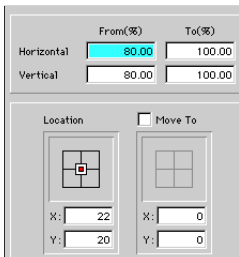
 Play the animation.

Now the shadow appears to shrink away from the airplane as the airplane rises, and expands towards the airplane when the airplane falls.

That completes your first animation in PhotoAnimator. Congratulations—and happy animating!

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Tutorial 2: Working with Masks

In this exercise, you will learn about one of PhotoAnimator's distinctive features—its ability to animate masks in addition to images. This tutorial will focus on the Mask options of PhotoAnimator Effects.

Mask Effects—The "Click Here Button"Animation

In this tutorial you will create a half-size banner ad. The banner will display the text "What are you waiting for?" for a several seconds. The text will be set on a yellow shape. You will then make the text disappear and use a mask to cut away at the yellow shape, revealing an orange button below the shape that has the words "Click Here" on it. Finally you will make a blue-striped radial graphic rotate around a few times to help accentuate the "Click Here" button.

1. **Open the PhotoAnimator application. When the "New Animation" dialog appears, click Half Banner (234 x 60).**

   The factory default setting is to have the New Animation dialog box appear automatically when PhotoAnimator is launched. If this dialog didn't appear, select File > New. This will give you access to the dialog.
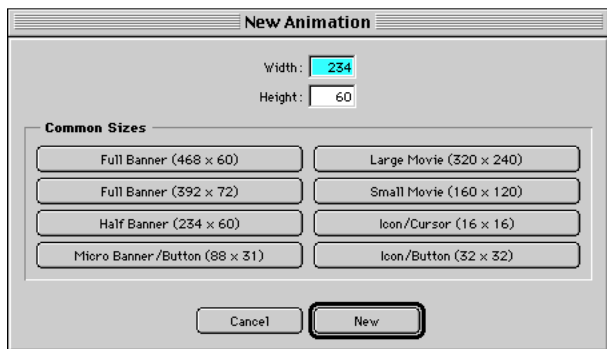
   Note: If the New Animation dialog appears and you wish it didn't, you can change this preference in Edit > Preferences.

   PhotoAnimator provides a range of common animation sizes for you to choose from. If a size you need is not listed, you create a custom size simply by entering the dimensions in the Height and Width fields.

2. Create two new layers.

☐ New	Create a new layer by clicking on the New button in the Layers pane. Name the layer "Spin Mask".

Create a new layer by clicking on the New button in the Layers pane. Name the layer "Spin Mask".

Create another layer and name it "Light Blue".

3. Expand all three layers out to 30 frames.

• **Select the "Background" layer in the Layers Pane. In the Filmstrip pane, click the New Cell button. This will create a new cell in the Background layer.** **Drag the cell's right edge to the right so that the cell contains thirty (30) frames.**

You can repeat what you just did to create a thirty frame cell in each of the other two layers, but you're learning, so let's do it a different way this time.

• **Copy the cell by pressing and holding the Option (Macintosh) or ALT (Windows) key, then drag and drop the cell from the Background layer (in the Filmstrip Pane) into the "Spin Mask" layer.**

This places an empty cell 30 frames wide in the Spin Mask layer.

• **Repeat for the "Light Blue" layer.**
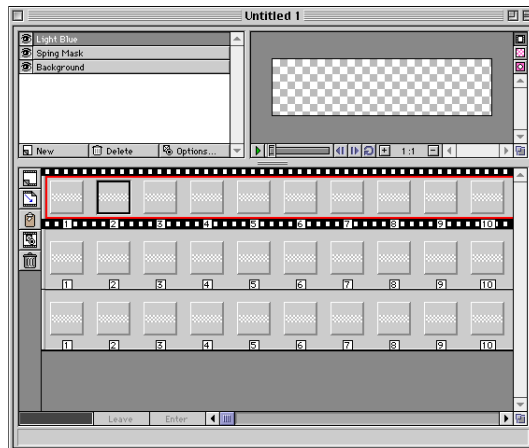
At this point you should have three layers each containing a thirty-frame cell.

4. **Now you'll add some color and import a mask to create a nice rotating animation effect.**

   • **Click on the Background layer to select it , then select Effect > Basic > Solid Color... from the menubar. Change the RGB values to Red: 0, Green: 0, and Blue: 153, then click OK.**

   • **Repeat this process on the Light Blue layer using RGB values of Red: 0, Green: 153, and Blue: 204.**
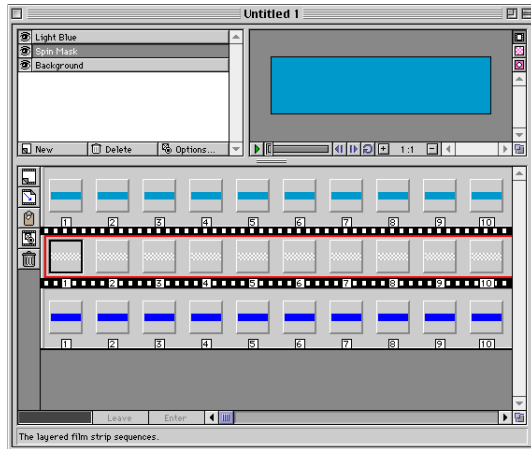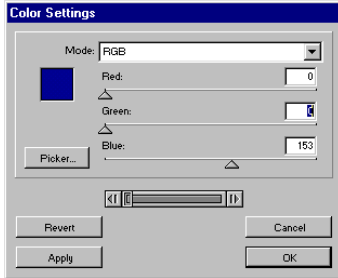
This creates two layers filled with different shades of blue.

5. **Now you'll will mix the two blue layers together and use a Mask to create a radial design between the colors.**

   • **Click on any frame in the Spin Mask layer to select the cell.**

   • **Choose Effect > Mask > Repeat... from the menubar.**

   In the Mask Repeat Settings dialog, click the Open File button and select the "Spinmask.psd" file from the Tutorial 2 folder.
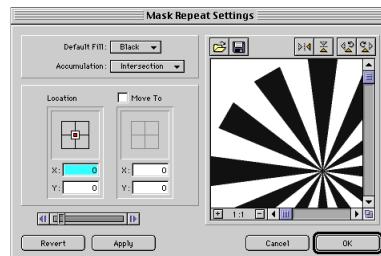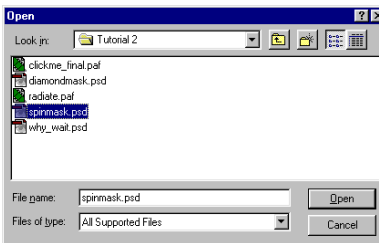
Note: You may have noticed that the "Spinmask.psd" file is actually much larger than the 234 x 60 size of the animation. This is so that the edge of the mask is never seen in the frame boundaries as it rotates. PhotoAnimator allows you to use masks that are smaller or larger than the animation frame size.

- **Click "OK" to save the mask into the cell and close the dialog box.**
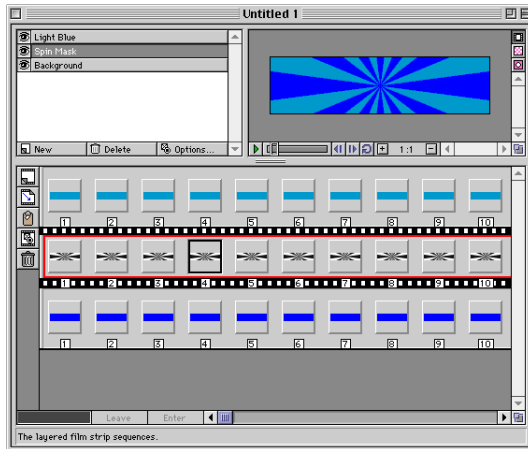
The two colors should now appear to form a radial design. However, if you press the Play button, nothing appears to happen. It's time to generate some motion!

6. **Adjust Cell size to prepare for the mask animation.**

- **Reduce the Spin Mask layer cell size to 24 frames (recall that it is currently 30 frames) by dragging the right border of the cell just past the number 24.**

This next step you could do by dragging as you did earlier, but let's try something new.

- **Duplicate the Spin Mask cell, then reduce the new cell to 6 frames: Click in any frame of the Spin Mask cell, then Cut and immediately Paste. Select Animation > Resize Cell from the menubar. Enter "6" in the Number of Frames box.**

This duplicates the Spin Mask cell and places the new cell to the right of the copied cell, and reduces the size of the new cell from 24 to 6 frames.
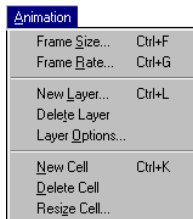
The Spin Mask layer should contain two cells. The first cell should be 24 frames long, and the second 6 frames long. Each cell should contain the same mask that we imported in step 5.

7. Create a short spinning effect for the Mask.

- **In the Filmstrip Pane, click any frame in the second cell of the Spin Mask layer (the cell with 6 frames) to select it.**

- **Select Effects > Mask > Rotate... from the menubar. Enter the following values:**

     From: 0°   To: 50°   Clockwise (CW)

- **When you have finished entering the Mask Rotate effect settings, click "OK" to apply the settings and close the dialog.**
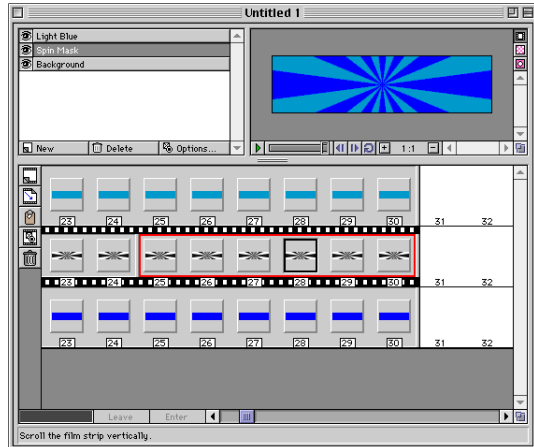
Preview the animation by pressing the Play button in the Preview Pane. Now the blue-striped radial design should stay static for a few seconds and then rotate a few times. It you turn on the Loop button in the Preview Pane you will notice that the rotation loops seamlessly.

Up to this point you have been working on the background for the animation. Now you are going to add in all of the other elements.

8. **Create five new layers to hold the rest of the animation elements.**

   - **Select the Light Blue layer in the Layers Pane.**

     You select this layer because you want your new layers to be positioned above this one, and PhotoAnimator inserts new layers above the selected layer.

   - **Create five new layers and name them in exactly this order: "Border," "Click Here," "Diamond Mask," "Shield," and "What Are You Waiting For." ("What Are You Waiting For" should be the last and top layer.)**

Effect

Image Repeat Settings...	⌘T
Basic	▶
Image	▶
Mask	▶
Transition	▶
Filter	▶

👁 What Are You Waiting For	▲
👁 Shield	
👁 Diamond Mask	
👁 Click Here	
👁 Border	
👁 Light Blue	
👁 Spin Mask	
👁 Background	
🔲 New · 🗑 Delete · 🗗 Options...	▼
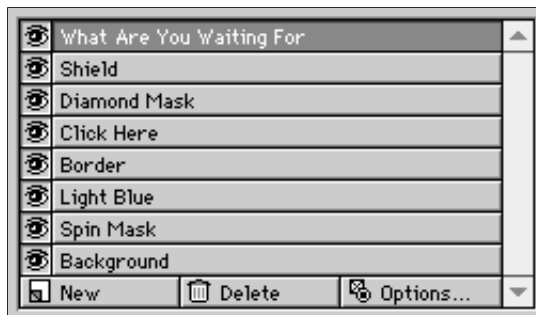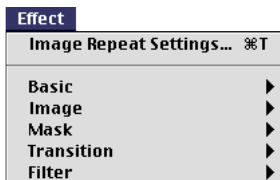
When you are finished you should have eight layers listed in the Layers Pane, and each layer should have a unique name.

9. **Import and examine a multi-layer file ("why_wait.psd").**

   - **Click on the Border layer in the Layers Pane and choose Import from the File menu, or press Command+I (Macintosh) or Control+I (Windows) .**

   - **In the Open dialog box, select the "why_wait.psd" file from the Tutorial 2 folder.**

   - **When you've located the "why_wait.psd" image, click "OK."**

     The Import Options dialog will be displayed.

Photoshop Import Options

Layer Mapping Options
- ⦿ Horizontal Inline (frames)
- ○ Horizontal Grouped (frames)
- ○ Vertical Grouped (layers)

Layer Import Direction
- ⦿ Top to Bottom
- ○ Bottom to Top

Import Items
- ☐ Layer Images
- ☐ Layer Masks
- ☐ Composite Image
- ☐ Alpha Channels

Cancel · Import

   - **Verify that the options in the Photoshop Import Options dialog are at their default settings: Horizontal Inline (frames); Top to Bottom; and all the Import Items boxes unchecked.**

   - **Click "Import."**
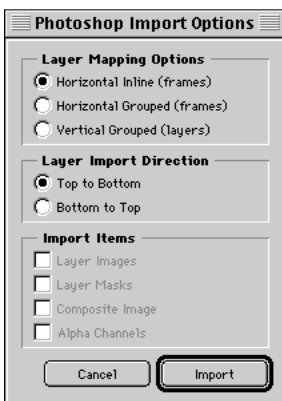
There are four images in the "why_wait.psd" file. Notice that after you imported the file, four cells were added to the Border layer. Each cell corresponds to a separate layer in the file you just imported.
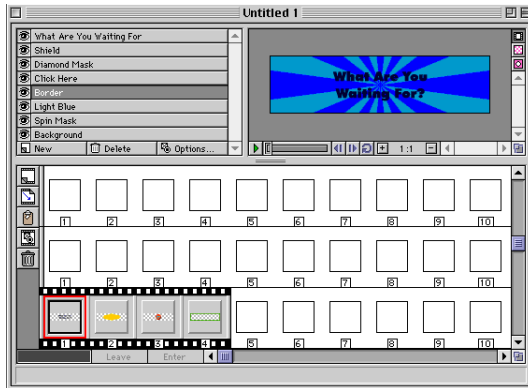
You must now move each of these images onto their own layer.

10. Move each of the imported images from the Border layer to the appropriate layer.

Since the new images in the cells are very small, click the Checkerboard icon in the Preview Pane. This will isolate the Preview to just the contents of the selected frame, which will allow you to easily identify each element.

• **To help you see the target Filmstrip layers where you'll be dragging the new cells, enlarge the window as much as you can.**
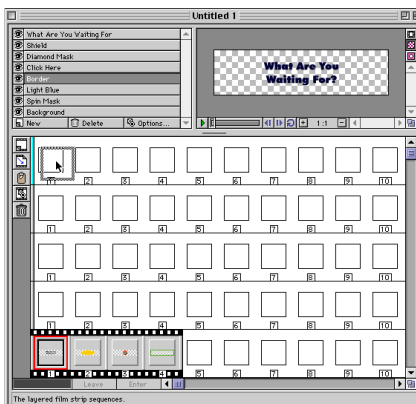
- **Click and drag the first cell (it should be the "What Are You Waiting For?" image) into the "What Are You Waiting For layer." This will be the top layer in the Filmstrip Pane.**

- **The next image should be the yellow shield. Click and drag this image to the "Shield" layer. The Shield layer is second from the top.**

- **Locate the "Click Here" button and drag it to the "Click Here" layer.**

- **The remaining cell in the Border layer should display a green border image. Leave this cell where it is.**

Note that you still have one empty layer, the layer named "Diamond Mask." We will be tending to this omission shortly.

Since you have finished moving the cells around, you can restore the composite (multi-layer) Preview in the PhotoAnimator window by clicking the Show Composite button at the top of the Preview Pane.

11. **Resize the Border, Shield, and Click Here layers to be 30 frames wide.**

   - **Click any frame in the Border layer cell, then select Animation > Resize Cell.... When the dialog box opens, enter 30 in the Number of Frames box.**

   - **Repeat this step for the Click Here and Shield layers.**

12. **Resize the Diamond Mask and What Are You Waiting For layers to be 15 frames wide.**

   - **Select the Diamond Mask layer, then create a new cell in it by clicking on the New Cell icon in the Filmstrip Pane. Resize this cell so it has 15 frames in it.**

   - **Resize the cell in the What are You Waiting For layer to 15 frames as well.**

Click the Play button in the Preview Pane. The message "What are you waiting for?" should display for 15 frames and then disappear.

Now you will use a Mask to make a diamond-shaped hole appear on the yellow shield, which will reveal the "Click Here" button for several frames.

13. Import the last image and apply its special effect.

- **Select the cell in the "Diamond Mask" layer.**

- **Copy and Paste the cell to create a duplicate cell to the right of it. Resize this duplicated cell from 15 frames to 9 frames (the second cell will end at the Frame 24 marker).**

- **Verify that this second cell (Frames 16 through 24) is selected (red border around it), then select Effect > Mask > Scale... from the menubar.**

Click the Open File button in the Mask Scale Settings dialog box and select "Diamondmask.psd" from the Tutorial 2 folder, then click Import.
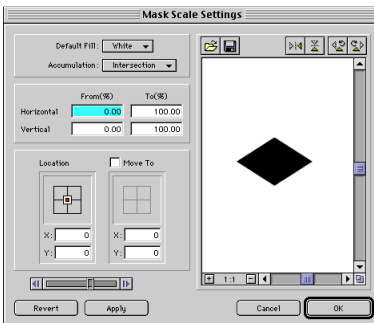
You may want to scroll the Settings preview in order to see the diamond mask. It isn't necessary to see it, however—if you imported it, it's there!

- **Enter the following effect settings:**

> **Default Fill: White**
> **Accumulation: Intersection**
> **Horizontal and Vertical "From(%)": 0 (zero)**
> **Horizontal and Vertical "To(%)": 100**

- **Click "OK" to Apply the effect and close the dialog.**

Preview the animation.
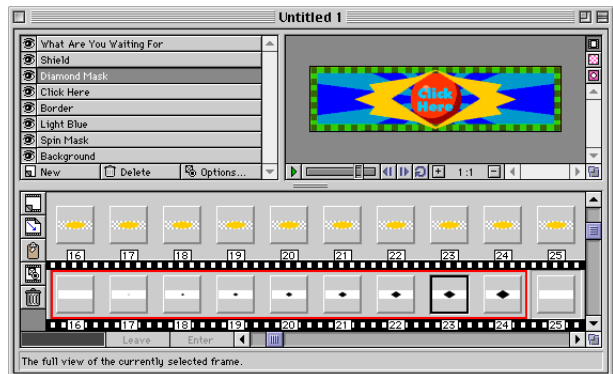
A diamond-shaped hole should appear in the yellow shield between Frames 16 and 24. However, after Frame 24, the shield goes back to fully covering the "Click Here" button. Let's change that.

14. Add another cell to fine-tune the animation.

- **Copy and Paste the second cell on the Diamond Mask layer.**

  This creates a third cell on the Diamond Mask layer.

- **Resize the newly pasted cell so that it contains 6 frames (this third cell will end at the Frame Number 30 marker).**

- **Double-click anywhere in this cell to open the Mask Scale Settings dialog box.**

- **Change the Horizontal and Vertical "From(%)" values to 100, then click "OK."**

Verify that the "Loop" button is pressed so the animation will play continuously.

Play the animation.

The final animation should display the text "What are you waiting for?" for a few seconds. Then the text should disappear and a diamond-shaped hole should get larger and larger until the "Click Here" Button is fully visible. The "Click Here" button should remain visible for six frames. Finally, the radial blue strips should rotate a few times, then the animation should start over.

That completes the "Click Here Button" animation, but before you wrap up your work with Masks, let's look at some layered masking effects.

Layered Masks—The "Radiation" Animation

This example demonstrates that you can combine masks on different layers to create interesting animation effects. In the next tutorial (Tutorial 3) you will learn how to make and use Gradient Masks—a unique and powerful PhotoAnimator effect tool that gives you more creative capability than any animation program of its type.

1. **Open the "Radiation" animation.**

   • **Select File > Open... from the menubar.**

   • **Locate the "Radiate.paf" file located in the Tutorial 2 folder on the Extensis CD.**

   • **Click "OK" to open the animation file.**

   Notice that you can store PhotoAnimator files in PhotoAnimator's own proprietary format (.paf). This allows you to save animations without exporting them. You can also import ".paf" files into PhotoAnimator—we'll talk about import and export options in our final tutorial "Exporting Animated GIFs" starting on page xx.
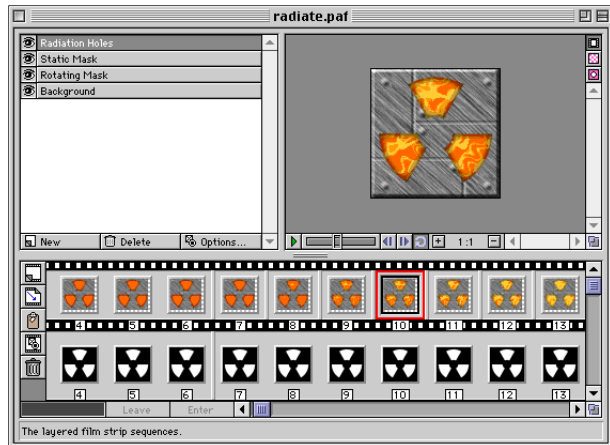
2. **Play the animation and observe the animation effect.**

   The holes that form a classic radiation symbol gradually open up to reveal an orange-colored backdrop. Then a wild transition occurs between orange and yellow (this effect was achieved with a Gradient Mask transition which will be covered in the next tutorial). Finally, the radiation holes close back up again.

We created the opening and closing of the radiation holes by layering two masks. The first mask, on the "Static Mask" layer, is stationary. The second mask, on the "Rotating Mask" layer, employs the same mask that was used on the Static Mask layer. However, the mask on the Rotating Mask layer rotates. When the second mask layer rotates relative to the first, the holes of the radiation appear to open and close.

In the next tutorial (Tutorial 3), you will learn about Transitions and see how to use a Gradient Mask—a unique and powerful animation tool unique to PhotoAnimator.

Tutorial 3: Working with Transitions and Gradient Masks

In this exercise, you will learn about another one of PhotoAnimator's distinctive features—its ability to produce simple to complex transition effects. This tutorial will focus on the Transition options of PhotoAnimator Effects.

Barn Door and Dissolve—The "Web Button"Animation

PhotoAnimator makes it easy to apply transition effects to cells. Basic transitions such as wipes, fades, and "barn door" transitions are directly supported using the dedicated Effects commands.

PhotoAnimator compliments these "bread and butter" transition effects with a feature called "Gradient Mask." The Gradient Mask feature uses a mask saved as a Photoshop (.psd) or GIF (.gif) file to create any number of unique transition effects.

There are three exercises in this tutorial:

- In the first exercise, you will learn how to create basic transition effects such as a Barn Door transition.
- In the second exercise, you will learn how to create a Gradient Mask transition.
- In the third exercise, you will look at a ready-made example file to see just how dynamic and complex Gradient Mask transitions can be.

Barn Door and Dissolve Transitions

In this tutorial you will add animation to a simple Web button. The button will grow into view using the Barn Door transition. A glow that temporarily highlights the button will fade in and out of view. And finally, when the button is fully visible, the word "Extensis" will dissolve into view over the button. You will accomplish all of this with transition effects.

1. **Preview the "button_start.paf" animation.**

   - **Open the "button_start.paf" file located in the Tutorial 3 folder.**

   Play the animation to get an idea of what it looks like before you start changing the effects.

   A blue-green glow appears around a button. After a few seconds the glow disappears and the word "Extensis" appears.

   Note: The glow is actually blue, but appears blue-green when viewed around a green button and against a yellow background. Since the visible effect is blue-green, we'll be referring to it that way.
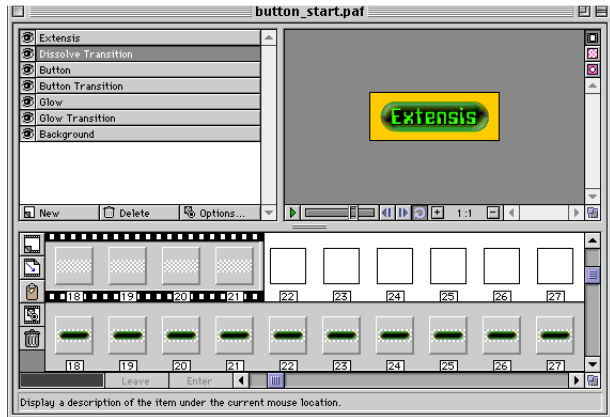
This PhotoAnimator File (.paf) contains seven layers. All of the layers are set up with cells, images, and effects already in place so that you can start right in working with transitions.

There are three of the layers in the Layers Pane that contain the word "Transition" (Glow Transition, Button Transition, and Dissolve Transition). Each of these layers already contain the blank cells that you will use to create the transition effects.

Transition cell placement: A transition cell will affect the content cell directly above it. Notice in this sample file that we have placed each transition layer directly below the content layer that the transition will be applied to.

2. **Begin by creating a transition between the Glow and Background layers.**

   • **Select the Glow Transition layer in the Layers Pane, then click any frame in the first cell of the Glow Transition layer in the Filmstrip pane.**

   Note: You don't need to select a layer in the Layers Pane in order to select a cell in that layer in the Filmstrip Pane, but doing so makes it easier to locate the right Filmstrip layer.

   • **Select Effect > Transition > Barn Door from the menubar.**

   • **Select the following Barn Door Settings:**

       Accumulation: Intersection
       Orientation: Vertical
       Direction: Outward
       Mode: None to All

   • **When you have completed the settings, click "OK."**

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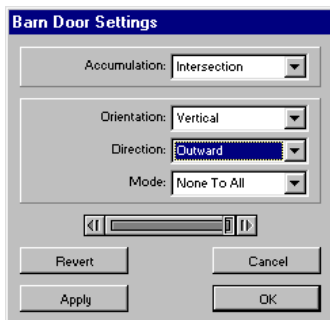
Preview the animation.

Notice that the blue-green glow appears to grow around the button shape in a vertical progression over the first eight frames of the animation.

3. **Now you'll make the glow disappear out of view using a slight variation of the Barn Door transition.**

    - **Click on any frame in the second cell on the Glow Transition layer.**

    - **Select Effect > Transition > Barn Door from the menubar.**

    - **Select the following Barn Door Settings:**

        Accumulation: Intersection
        Orientation: Horizontal
        Direction: Inward
        Mode: None to All

    - **When you finish with the settings, click "OK."**
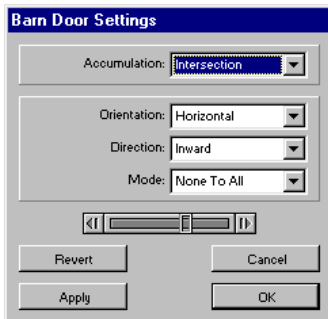
Preview the animation again.

First the blue-green glow transitions into full view under the direction of the vertical Barn Door wipe, then disappears. It next appears horizontally, transitioning into full view under the direction of the horizontal Barn Door wipe, then disappears.

4. **Next you'll create a transition so that the button fades into view after being hidden at the start of the animation.**

    - **Select the Button Transition layer in the Layers Pane.**

    Since there is only one cell in this layer, the cell is automatically selected when you select the layer.

    - **Once again select Effect > Transition > Barn Door from the menubar.**

    - **Select the following Barn Door Settings:**

        Accumulation: Intersection
        Orientation: Horizontal
        Direction: Outward
        Mode: None to All

    - **When you have completed the settings, click "OK."**
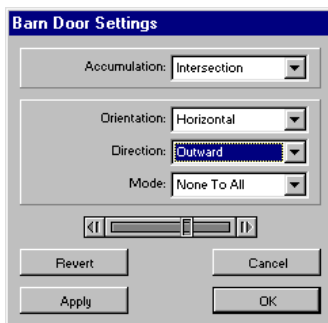
Preview the animation once again

This time the button fades into view horizontally while the blue glow appears around the button for several frames and then disappears.

5. For our last Web Button animation effect you will use a Gradient Mask transition.

- **Select the Dissolve Transition layer in the Layers Pane.**

- **Click on any frame in the *second cell* of the Dissolve Transition Filmstrip layer (the first cell will not have an effect applied to it and will act as a place-holder).**

- **Select Effect > Transition > Gradient Mask.**

📂 **Click on the Open file button in the Gradient Mask Settings dialog box and select "dissolve.psd" from the Tutorial 3 folder.**

This places a texture in the second cell of the Dissolve Transition layer that you will use as a gradient mask.
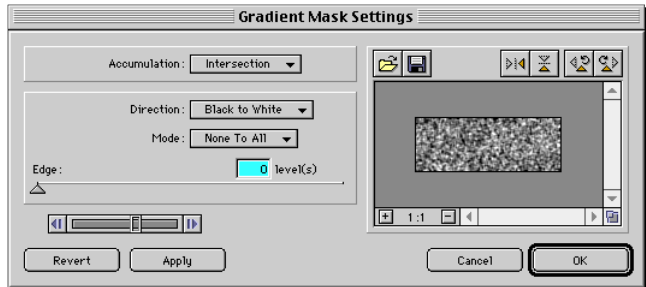
- **Select the following Gradient Mask Settings:**

Accumulation:	**Intersection**
Direction:	**Black to White**
Mode:	**None to All**
Edge Levels:	**0**

You can set the Edge levels value to 0 by either entering the number zero in the levels field or by dragging the Edge slider to the far left. If you are wondering what Levels does, don't worry we'll talk about Levels soon.

- **Click "OK."**

▶ **Preview the animation.**

With our new settings, after the Button and Glow Transitions perform their respective effects, the Button stays fully visible and the word "Extensis" dissolves into view, the result of using the Gradient Mask.

As you can see, the Gradient Mask effect is more sophisticated than the simple Barn Door transition. This Dissolve effect is just one of the infinite types of transitions that the

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Gradient Mask feature is capable of making. Let's look at how Gradient Mask transitions work.

Gradient Mask Transitions: Gradient Mask effects use an image as a mask to create the effect. As mentioned, this mask can be a GIF (.gif) or a Photoshop format (.psd) file. The Photoshop file can be an RGB, Grayscale, Indexed, or Duotone image, but you cannot use Photoshop files that are in LAB or CMYK color mode. Mask files do not need to be the same size as the animation.

PhotoAnimator's Gradient Mask Transition effect uses the brightness values of the pixels in the mask file to create its effect. Although you can use RGB, Duotone, or Indexed color files as masks, for optimal results it is best to stick with Grayscale images because PhotoAnimator will actually convert other color formats to Grayscale anyway.

- **Double-click any frame in the second cell of the Dissolve Transition layer.**

Recall from Tutorial 1 that once a cell has had an Effect applied to it, double-clicking any frame in the cell automatically opens the Effect Settings dialog box for that effect. In this case, the Gradient Mask Settings dialog will open, since that was the Effect last applied to this cell.

- **In the Gradient Mask Settings dialog box, drag the Edge slider to the right until the Levels field reads 130.**
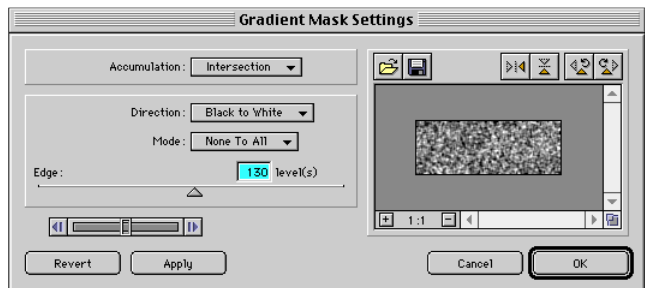
The Levels control in the Gradient Mask Settings dialog controls the transition "fuzziness." Transitions created with the Gradient Mask feature can look very different depending on the Levels setting.

• **Click "Apply."**

(Recall that the Apply button only temporarily applies the parameters in a given settings dialog box, allowing you to Preview different settings before committing to them.)

• **Move the Gradient Mask Settings dialog so that you can see the Preview Pane and the Gradient Mask Settings dialog at the same time.**

• **Move the Player slider in the Settings dialog (its located above the Revert and Apply buttons) back and forth and observe the change in the animation Preview Pane.**

If you look carefully, you'll see that the dissolve effect has been blurred by the new Levels setting of 130.

If you move the Edge slider back to the far left (0) and pre-view the animation again, you will see that the Edge Effect is very pixelated—which is probably more appropriate for this dissolve effect than the 130 Level you just looked at.

So you can see that with the Gradient Mask Effect you can create a wide range of transition effects with any given mask file, creating an unlimited number of possibilities. In the next exercise you will examine another file to see a few more of the many creative opportunities available with this unique effect.

Complex Animations with Gradient Masks—The Aperture Animation

In this exercise you will look at a file with lots of Gradient Transitions to get an idea of the creative possibilities.

1. **Examine the Aperture.paf animation.**

    • **Open the "aperture.paf" file located in the Tutorial 3 folder.**

    Verify that the Loop button in the Preview Pane is pressed so that the animation will play continuously.

    Play the animation.

    An aperture opens up to reveal a sort of radial explosion effect, and then the aperture closes again.
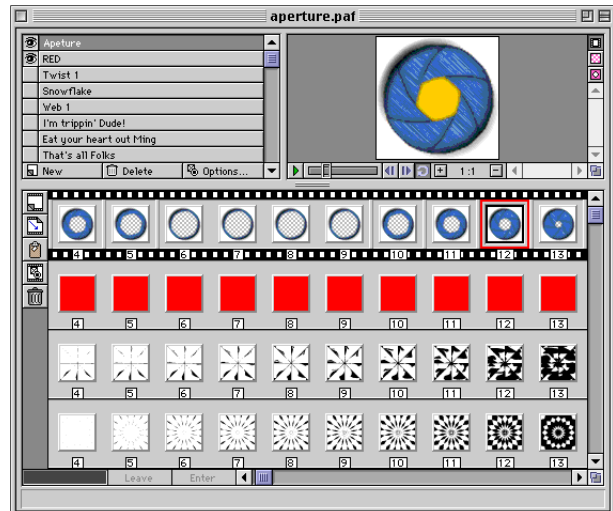
    Notice that there are numerous invisible layers (layers with their eye icon turned off) in the Layers Pane. This file was created to show you a variety of Gradient Mask transitions. You will hide and reveal different layers so that you can better view these different transition effects.

2. **Hide the Aperture layer and examine the effect.**

    In the Layers Pane, hide the Aperture layer by clicking on its eye icon (the eye should disappear indicating that the layer is hidden).

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All of the layers are actually Gradient Masks except the Aperture, RED and YELLOW layers. The RED and YELLOW layers are filled with solid colors (Effect > Image > Solid Color). Using solid colors as the background for a Gradient Mask is a often a great way to set off the effect.

Notice that only four layers are currently visible: the "YELLOW," "Diagonal 1," "Concentric," and "RED" layers.

Preview the animation again, and notice the combined effects of the "Diagonal 1" and "Concentric" Gradient Mask layers on the "YELLOW" and the "RED" layers.
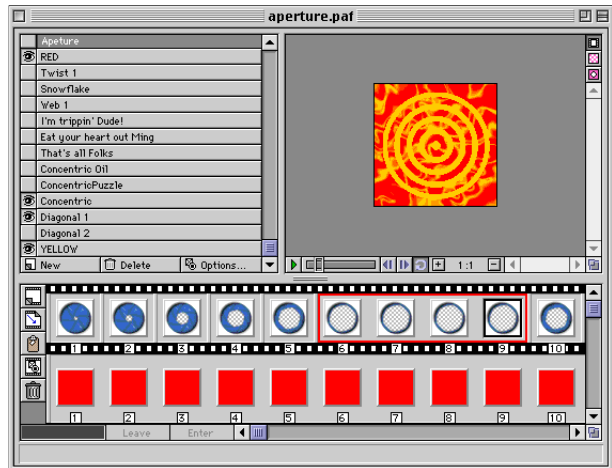
Hide the "Concentric" layer and then Preview the animation again.

Now hide the "Diagonal 1" layer and turn the "Concentric" layer back on.

Preview the animation again.

As you can see, the effects of these Gradient Mask layers are very different. Take a moment now and turn on and off various Gradient Mask layers and observe the results by previewing the animation. Try different combinations. After a while you will begin to appreciate the incredible range of possibilities with Gradient Mask transitions.

4. **Now let's look at a few of the mask files used to create some of these Gradient Masks transitions.**

🐷 **First, unhide the "Twist 1" layer.**

• **Next, double-click on any frame in the *second* cell of the Twist1 Filmstrip layer to open up the Gradient Mask Settings dialog.**

The Preview window in the Gradient Mask Settings dialog shows the file used as the mask for this layer. This mask, like most of the mask files in this example animation file, was created in Photoshop using Filter Factory filters (most of these filters are available for free on the Web).
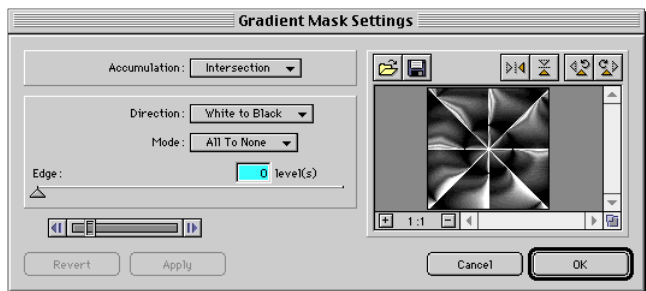
• **Zoom in on the mask by clicking on the Plus (+) sign in the Preview window of the Gradient Mask Settings dialog.**

• **Roll your mouse cursor over this Preview window. When the cursor changes to the hand icon, click and drag to observe the detail of the mask.**

Notice that the mask has a broad range of gray values. In general, the more gray values there are in a mask, the more versatile the mask is. This is because the Gradient Mask Transition effect uses the brightness values of each pixel to create the transition effect over time. A mask with a large variety of gray values in it gives the Gradient Mask Transition more options.

Tips for Creating Masks Suitable for the Gradient Mask Transition Effect

While you can generate a mask in any program that will export to GIF or PSD format, for this exercise we will assume that you are working in Photoshop.
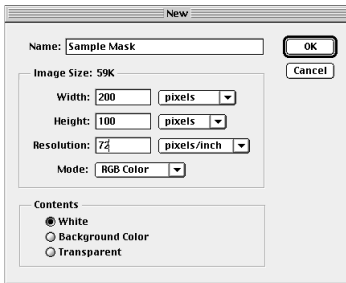
- **Launch Photoshop and open a new file.**

  You generally want to start with a file size that is the same or approximately the same as the animation that you will use the mask in. You will also want to select RGB mode, since many of Photoshop's filters and features aren't available in Grayscale mode.

- **Press the letter "D" on your keyboard to ensure that the foreground and background colors are set to black and white respectively.**

- **Select a filter or line art to use as a base for the mask, then add your own special effects.**
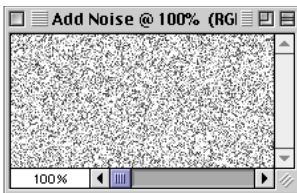
  A great place to start is with the Filter > Noise > Add Noise (with the Monochrome setting on) filter, or Filter > Render > Difference Clouds filter. These filters create random textures that you can use as starting points for your masks. You can also start with any line art or patterns that you may have. Simply convert the line art or patterns to gray values with the Image > Adjust > Desaturate feature.
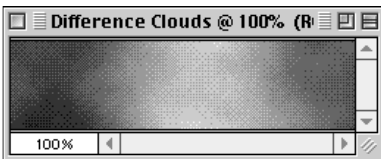
  Once you have a basic foundation, try any variety of filters. Our advice is for you to go wild. Just about anything will work. However, some of the more simple effects might generate more practical results. For example, the mask used to generate the dissolving text effect in the earlier example was created with the Add Noise and Blur More filters.

  Another way to go is to apply a basic black to white gradient. Try diagonal gradients or radial gradients. If you have a solid line art shape like an ellipse, try applying Gaussian Blur with a high setting to create in essence a custom gradient.

  PhotoAnimator's Transition effects offer a wide range of possibilities for animation. The potential variety offered with the Gradient Mask transition effect is endless. Especially since you can combine multiple Gradient Masks, not to mention all of the other effects found in the Effects menu in PhotoAnimator. You are limited only by your imagination. Have fun!

Tutorial 4: Working with Nested Sub-Animations

PhotoAnimator allows you to nest animations within a cell and then apply effects to them much like you would to any other cell. In this tutorial you will quickly create and use nested sub-animations.

Nested Sub-Animations—The Hectic Animation

hectic_final.paf

1. **Preview the "hectic_final.paf" animation.**

   • **Open the "hectic_final.paf" file located in the Tutorial 4 folder.**

   Play the animation several times to get an idea of the different animations that are a part of it.
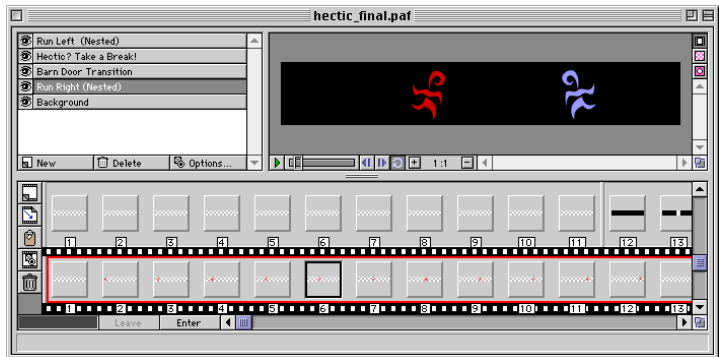
Notice that this animation consists of five layers: "Run Left (Nested)," "Hectic? Take a Break!," "Barn Door Transition," "Run Right (Nested)" and "Background." The two layers that are labeled with (Nested) contain animated animations, or what PhotoAnimator calls Nested Sub-Animations.

   • **Click "Run Right (Nested)" layer in the Layers Pane.**

This layer contains one 14-frame cell. Notice that when you select this cell the "Enter" button below the Filmstrip Pane becomes active.

   Enter   Click the Enter button.

Tip

Don't forget that PhotoAnimator provides multiple levels of Undo. Simply press **Command+Z** (Macintosh) or **Control+Z** (Windows) as many times as necessary to "wind back" your actions.

You can Redo an undo operation with **Command+Y** (Macintosh) or **Control+Y** (Windows).
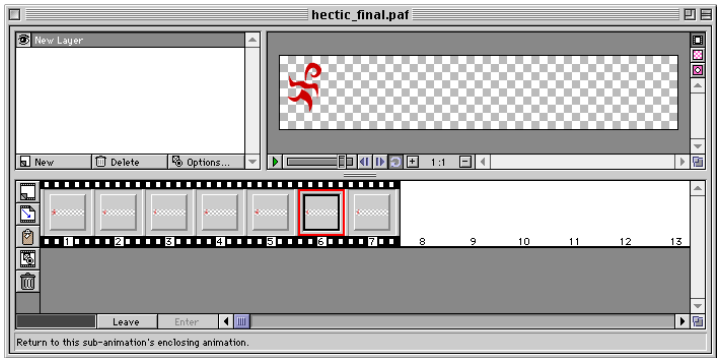
When you click on the Enter button PhotoAnimator takes you into a Nested Sub-Animation work area. The Nested Sub-Animation Window behaves exactly like it does with regular animations in PhotoAnimator: You can work with layers on the Layer Pane, preview the Nested Sub-Animation in the Preview Pane, and work with frames and cells in the Filmstrip Pane, just as you can with a normal animation.

Preview the Nested animation.

This nested animation consists of a simple loop of a stylized running stick figure. Notice that the stick figure is running in a stationary position. As you will soon see, the advantage of using a Sub-Animation is that you can apply movement to it externally. In other words, you can move, rotate, resize or otherwise apply any of PhotoAnimator's effects to a nested animation. This means that you can easily make adjustments to the movements of the sub-animation.

More importantly, your nested sub-animations can have the same characteristics as normal layers. This means that your nested animations can move wherever you want them to and you don't have to worry about anti-aliasing to other imagery in the animation. PhotoAnimator takes care of that for you when you export.

Click the Leave button, then close the "hectic_final.paf" file without saving changes.
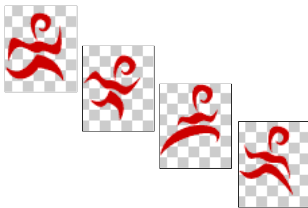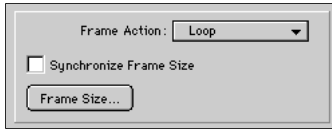
hectic_start.paf

Frame Action: Loop
☐ Synchronize Frame Size
[Frame Size...]

2. **Open the "hectic_start.paf" file located in the Tutorial 4 folder.**

   • **Select the "Run Left (Nested)" layer and create a new cell on this layer. Resize the cell to 32 frames.**

   • **Select Effect > Basic > Sub-Animation... from the menubar.**

   • **Select Loop from the Frame Action pop-up menu, then click "OK."**

   [Enter] **Click the Enter button at the bottom of the Filmstrip Pane to open the Nested Sub-Animation work area.**

   Click on the empty cell on the Filmstrip Pane, then click the Trash icon, or press the Delete key on your keyboard.

   You're going to import a file with multiple graphics, so you first needed to delete the existing cell.

   Click the Import button.

   • **Locate the "run_left.psd" file in the Tutorial 4 folder, then click "Open."**

   The Photoshop Import Options dialog box will be displayed.

   • **In the Photoshop Import Options dialog box, set the Layer Wrapping Options to "Horizontal Inline (frames)" and set Layer Import Direction to "Top to Bottom."**

   • **Click "Import" to import the image file.**
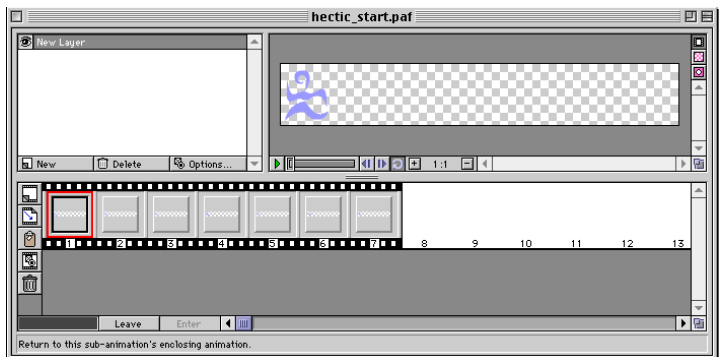
This imports a seven-layer Photoshop (.psd) document into PhotoAnimator. With the settings you specified in the Import Options dialog, each Photoshop layer was placed in the animation file as a separate single-frame cell. We now have a Nested Sub-Animation that contains seven cells.

56
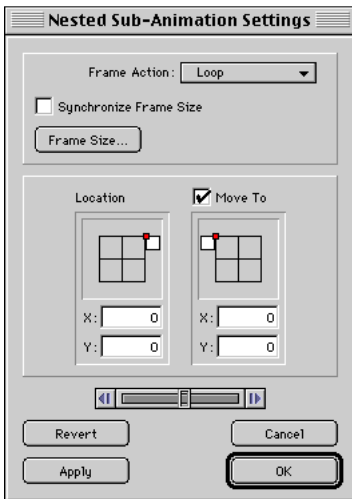
Leave   **Click "Leave" to return to the regular animation work area.**

- **Hide all the of the layers in the animation except for the Run Left (Nested) layer.**

▶ **Now preview the animation.**

The little character runs in place on the left side of the screen.

- **To help you see the little character more easily, unhide the Background layer.**

▶ **Preview the animation again.**

Now it's time to experience the fundamental advantage of a nested animation. You will make this little guy run across the entire animation instead of just in place.

4. Make the Nested Sub-Animation move across the frame.

- **Double-click on any frame in the cell on the Run Left (Nested) layer in the Filmstrip Pane.**

This opens the Nested Sub-Animation Settings dialog box.

- **In the Nested Sub-Animations Settings, click the "Move To" check box (it should now display a checkmark).**

- **In the "Location" field, drag the small white rectangle of the Image Proxy to the top-right corner of the grid. Position it so that it is off-screen on the top-most right-hand edge of the grid.** *(See screenshot at left.)*

- **In the "Move To" field, drag the small white rectangle of the Image Proxy to the top-left corner of the grid. Position it so that it is off-screen on the top-most left-hand edge of the grid.** *(See screenshot at left.)*

- **Click "OK" to apply the settings and close the dialog.**

▶ **Once again, preview the animation.**

Notice that the little character runs across the entire animation from left to right. PhotoAnimator has taken the stationary nested animation and moved it over the banner making it appear as if the running character is running from one place to the other!

▶ Turn on the other layers and preview the entire animation.

You can non-destructively manipulate the nested animations as much as you want before you export the animation. Photo-Animator also allows you to apply effects to nested animations and nested animations can have multiple layers just like a normal animation.

You will discover that you can create awesome animation effects very easily using Nested Sub-Animations—animations that would take you hours to create with a traditional gif animation tool.

In the final tutorial (Tutorial 5) you will learn about Photo-Animator's powerful Export options.

Tutorial 5: Exporting

PhotoAnimator has three export options. You can export as a GIF animation, as a Photoshop file, and as a PhotoAnimator file or template. You will look at all three options in this tutorial, but the lion's share of this tutorial will deal with exporting a PhotoAnimator file to GIF animation.

Exporting to a GIF Animation—The Banner Ad Animation

When you export to Animated GIF from PhotoAnimator you are converting the animation from millions of colors (24-bit) to anywhere from 256 to 4 colors (8, 7, 6, 5, 4, 3 and/or 2-bit). Also, all of the layers are merged down to a single layer for each frame.

In this first example, you will open a sample banner ad and export it as a GIF animation. Web banner ads need to download quickly over the Internet, so the the objective is to get this banner ad down to the smallest file size possible without sacrificing the visual quality of the images in the animation.

1. **Specify Export Format**

   • **Open the "EPA_ad.paf" file located in the Tutorial 5 folder on the Extensis CD.**

   Don't worry about previewing the animation, you will do that several times within the Export dialog box.

   • **Select File > Export... from the menubar.**

   • **From the Format pop-up, select "Animated GIF."**

EPA_ad.paf
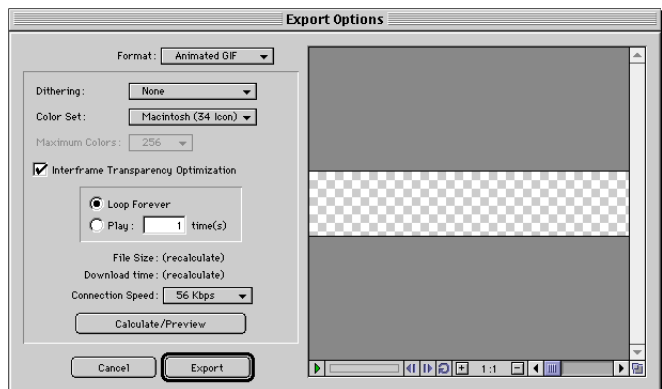
2. **Specify Dithering**

- **Examine the Dithering pop-up menu and notice that there are three options: None, Diffusion, and Pattern.**

    In general the "None" option provides the best GIF compression. The Diffusion option can be a better choice for visual quality in some cases. Pattern is an another alternative to instead of the Diffusion option.

- **For this example, select Dithering: None.**

3. **Specify Color**

- **Examine the Color Set pop-up menu.**

    PhotoAnimator provides a wide range of palettes, including the Netscape palette (also known as the "Web palette") as well as several Macintosh and Windows palettes. Most animators will opt for the Adaptive palette which creates an adaptive palette from the available colors in the layered 24-bit version of the animation. In most cases the adaptive palette will result in an animation that looks as close to the 24-bit original version as possible.

- **Select Color Set: Adaptive**

    Note: As you create content that you will animate in PhotoAnimator, we recommend choosing colors from the Netscape palette whenever possible. This will help maintain the visual integrity of the animation when it is viewed on 8-bit systems. Just be aware that, though the Netscape palette is often recommended, selecting this palette on export often results in unnecessary visual quality loss in the animation when the animation is not predominantly composed of colors from the Netscape palette, such as photographic images.

4. **Specify Maximum Colors**

- **Examine the Maximum Colors pop-up menu. Note that you have the option of choosing from 256, 128, 64, 32, 16, 8 and 4 colors.**

    PhotoAnimator will generate a palette for the animation that contains no more colors than the number you have selected. For example, if you choose 64, PhotoAnimator will create a palette for the animation that contains 64 colors. PhotoAnimator will do this while attempting to keep as many colors from the original 24-bit color version as possible.

    However, PhotoAnimator always performs certain optimiza-

tions for you automatically. For instance, if you choose 64 colors and the image you are exporting actually contains fewer than 64 colors, PhotoAnimator automatically removes unused colors from the color palette to ensure that you will end up with the smallest possible file size.

Note that the Maximum Colors pop-up menu is only available when Adaptive palette is the selected Color Set pop-up menu.

• **For now, select Maximum Colors: 256**

5. **Specify Optimization**

   Below the Maximum Colors pop-up menu is the Interframe Transparency Optimization check box.

   If you check this option, PhotoAnimator will optimize the animation by building transparency into the animation's frame whenever possible. Web browsers display GIF animations by displaying one frame over another. If parts of one frame contain the same imagery as in the previous frame, you can reduce the file size of the animation by making these redundant portions of the frame transparent.

   To demonstrate how valuable this can be, leave this option off for now.

   • **For now, de-select (uncheck) Interframe Transparency Optimization.**

   Note: Depending on the content of your animations, sometimes this option can actually make the file size larger. However, PhotoAnimator can calculate the file size of your animation based on the Export options you specify. You will see that it is quite easy to compare file sizes as you make different choices to end up with the smallest file size.

6. **Examine Loop options**

   With these options you can specify whether you want the animation to loop indefinitely or not.

   • **Select Loop: Forever.**

   The remaining features in the Animated GIF Export Options dialog box allow you to preview the results of the options you have selected before you export.

   This is a very valuable aspect of PhotoAnimator. It means that you can experiment with various options and preview them before you actually export to GIF.

Before you move on, notice that there are two lines that read "File Size" and "Download Time." These two lines both have the word "recalculate" next to them in parenthesis. This will be explained in a moment.

7. Test your animation with the options you specified

- **Click the Calculate/Preview button and watch carefully.**

  After a few seconds, the Calculate/Preview button will become grayed out. Notice that there are now values displayed by the "File Size" and "Download time".

- **Verify that the display indicates the following values:**

  File Size = 24,928 bytes
  Download time = 12 seconds.

  The "File Size" indicator tells you how large the file will be, in bytes, if you were to export the animation with the current settings. The currently displayed values tell you that if you were to export this banner ad with dithering set to none, using an adaptive palette with 256 colors, and no interframe transparency optimization, the animation would have a file size of 24,928 bytes, which is about 24.9 Kilobytes.

  The "Download time" indicator is related to the Connection Speed pop-up menu, which displays 28.8 Kbps (Kilobytes per second) by default. Our "Download time" readout indicates that it will take approximately 12 seconds to download this animation with a file size of 24.9K. If you select a different download speed from the Connection Speed pop-up menu, this Download time will change to reflect how long it would take to download the animation at its current file size on the selected connection speed.

  The Download time and Connection Speed options in the Animated GIF Export Options dialog box allow you to generate animations that are optimal for your target connection rate. In other words, if you think that the majority of your site's visitors will be connected to the Internet with 14.4Kbps modems, you can use these features to help make sure that your animations will work within any parameters that you have set for the site.

  Note: The Preview will play back the animation at the Frame Rate speed you choose from the Animation > Frame Rate... menu before you enter the Export Options Dialog box. In other words, the playback speed of an animation has nothing to do with how long an animation takes to down-

load to the viewer's page. It takes a certain amount of time for an animation to download before it will begin its seamless playback in the viewer's browser, and that speed is what the Download Time calculation is showing you.

Twelve seconds is a long time to have to wait for this banner ad, especially since banner ads are usually not the only thing on a Web page. You will need to make this animation much smaller. Fortunately, with PhotoAnimator this is easy to do.

8. Minimize download time

- **Select Interframe Transparency Optimization by clicking the box (checkmark in it).**

   Notice that the Calculate/Preview button becomes active and the "File Size" and Download time" options now display "(recalculate)." This indicates that some parameter used in the previous calculation has been changed and the values must be recalculated.

- **Click the Calculate/Preview button.**

   The File Size indicator now shows that the file size has dropped to 21,643 bytes (21.6K) and the Download time is now approximately 11 seconds. You have chopped over 3K off the animation's file size and cut the download time by 1 second. Not bad, but you're just getting warmed up!

- **Select Maximum Colors: 16, then click the Calculate/Preview button again.**

   Now File Size indicates that the animation would only be 12,264 bytes and the Download time would take a mere 6 seconds to travel over the Internet. In other words, by reducing the color palette to 16 colors, and turning Interframe Transparency Optimization on, you can cut the file size (and thereby the download time) of the animation in half.

   It is nice that you've been able to make the animation's file size so small, but you don't want to present a poor quality animation. You've just thrown out 240 colors— will the animation still be worth looking at?
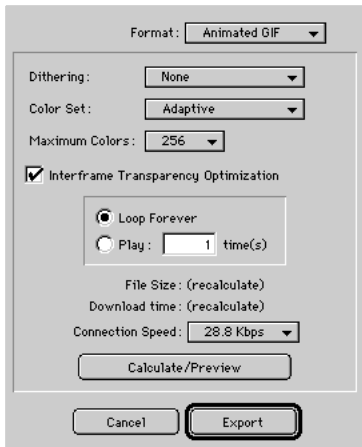
9. Preview the animation to verify its visual quality, then Export the animation

Press the Loop button in the animation Player in the Export Options dialog, then Preview the animation.

The Preview window in the Export Options dialog will show you how the animation will look at the calculated settings. Note that the Preview is not available until a download time has been calculated.
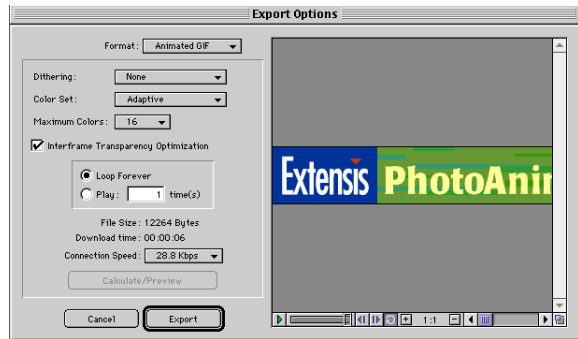
If you zoom in and study parts of the animation you'll see that the animation looks very similar to the original 24-bit version. But let's confirm this.

- **Select Maximum Colors: 256 while the animation Preview is still running.**

  Notice that you do not have to click on the Calculate/Preview button again. PhotoAnimator remembers the settings of the previous calculations you chose so that you can switch back and forth between 256 and 16 colors while the preview is playing to compare the differences.

  Since you have verified that our settings are satisfactory (16 color adaptive palette with no dithering and Interframe Transparency Optimization turned on), you can now to export the animation.

  Important: This part of the tutorial is extremely complicated, so pay very close attention. Even seasoned professionals get lost when trying to perform this step. Now then...

- **Click the Export button.**

  In all seriousness, that's all there is to it. PhotoAnimator takes care of everything for you, automatically generating an optimized GIF animation from your 24-bit layered PhotoAnimator document.

To fully appreciate this, look carefully at the image below.

This image shows what the exported animation looks like frame-by-frame. The light and medium gray blocks represent the portions of the animation optimized with interframe transparency. In other words, the light and medium gray portions represent transparency.

Another important thing to notice is that the animation exported only 14 frames. If you look at the filmstrip layers in the "EPA_ad.paf" file you will see that some layers are as many as 45 frames long. However, the majority of these frames are static duplicates. That is, 32 frames are each duplicates of one another. The duplicates are there so that the animation will pause on the last frame long enough for the viewer to read the text on the banner ad, before the animation loops back to the beginning and starts over again.

PhotoAnimator recognized the duplicate frames and compiled them all into one frame by lengthening the display time of that frame. While the first 13 frames of the animation each display for 7/100ths of a second, the last frame of the animation is displayed much longer: just over two seconds. Including those redundant frames in the animation would have added to the animation's file size unnecessarily.

Tips for Keeping GIF Animation File Sizes Down

While PhotoAnimator automates the process of optimizing an animation's file size, it can only do so much with what it has been given. It is very easy to create prohibitively large GIF animations with PhotoAnimator's powerful animation features. Consider these guidelines for keeping your animation files manageable.

1. **Keep transitions to as few frames as possible.**

   For instance, if you are moving a logo across a banner ad and you have set the motion to occur across 15 frames, could you achieve a believable effect by using only 10 or even 5 frames? If your file size is not as low as you want it to be, try resizing your cells to fewer frames, then compare the difference.

2. **Use the Fade transition sparingly.**

   In order to achieve it's effect, the Fade transition effect must add colors to your animation which will make it more difficult to export your animation at lower bit depths. A lot of the time, using one of the Wipe or Barn Door transitions will create a similar effect, but with a much smaller hit on file size.

3. **Try to confine your animation to a small palette.**

   Heavy use of colorful photographic or 3D images can make it difficult to export your animation at lower bit depths without sacrificing image quality.

4. **Use the Dithering: None option whenever possible.**

   The GIF format employs LZW compression, which works best with contiguous strings of same-color pixels. So the more dithering in an image, the more difficult it will be for the GIF format to compress the animation.

Exporting to Photoshop Format

PhotoAnimator also allows you to export to a layered Photoshop file. The main benefit to this export option is that it allows you to export frames created with PhotoAnimator for editing back in Photoshop. Since PhotoAnimator also imports layered Photoshop files, you can export out a PhotoAnimator file out as a layered Photoshop file and then re-import the results back into PhotoAnimator. This makes PhotoAnimator an excellent animation companion to Adobe Photoshop.

And what is really cool about this Photoshop support is that PhotoAnimator understands all of Photoshop's transparency and layer information. (Example: If you create some text on a layer in Photoshop, and then create a 50% opaque drop shadow of the text on a separate layer, PhotoAnimator will bring in both layers and retain the transparency of the drop shadow. Woo-hoo!)

The Photoshop Export Options dialog box contains only two options, both of which control the Frame Order of the exported file. You can choose to have the frames ordered from Top to Bottom (frame 1 of your PhotoAnimator document will translate to the top layer in the layered Photoshop file, and so on) or you can elect to have the frames ordered from Bottom to Top (the last frame of your PhotoAnimator document will translate to the top layer in the layered Photoshop file, and so on).

Note that, unlike exporting to the GIF format, all redundant PhotoAnimator frames are exported as individual Photoshop layers. For example, our 45 frame example animation will export to a 45 layer Photoshop file.

Exporting to PhotoAnimator File or Template

PhotoAnimator's final export option is to a PhotoAnimator file (PAF) or template (PAT). The advantage of exporting to a PhotoAnimator file is that you can then import the file back into PhotoAnimator as a Nested Sub-Animation.

Exporting to a PhotoAnimator Template allows you to construct a layered document in PhotoAnimator that you can use over and over again by simply swapping in different images. For example, you might make a template for banner ads so that you can simply swap in a different message or background and to generate any number of ads from the template.

Appendix A: Keyboard Shortcuts

Function Performed	Macintosh	Windows
Cut	Command+X	Control+X
Copy	Command+C	Control+C
Paste	Command+V	Control+V
Select All	Command+A	Control+A
Undo	Command+Z	Control+Z
Redo	Command+Y	Control+Y
Import	Command+I	Control+I
Export	Command+E	Control+E
Frame Size	Command+F	Control+F
Frame Rate	Command+G	Control+G
New Layer	Command+L	Control+L
New Cell	Command+K	Control+K
Delete Cell	Delete or Del	Backspace or Delete
Duplicate Cell	Option+Drag cell	Alt+Drag cell
Extend Cell	Option+Click on blank frame	Alt+Click on blank frame
New Cell	Shift+Click on blank frame	Shift+Click on blank frame
Effect Settings (for currently applied effect)	Command+T	Control+T
Play/Stop Animation	Spacebar	Spacebar
Preview Zoom In	Command+"+"	Control+"+"
Preview Zoom Out	Command+"-"	Control+ "-"
Hide all layers except this one	Option+Click eye icon	Alt+Click eye icon
Show all layers including this one	Option+Click eye icon	Alt+Click eye icon
Select (relative to currently selected)		
First Frame in layer	Home	Home
Last Frame in layer	End	End
Frame Right	→	→
Frame Left	←	←
Cell Right	Shift+→	Shift+→
Cell Left	Shift+←	Shift+←
Layer Up	↑	↑
Layer Down	↓	↓
New Animation File	Command+N	Control+N
Open Animation File	Command+O	Control+O
Save Animation File	Command+S	Control+S
Close Animation File	Command+W	Control+F4 or Control+W
Quit PhotoAnimator	Command+Q	Alt+F4 or Control+Q

Suggestion

We'd like to know what you think we could do to make Extensis PhotoAnimator better. So if you have an idea for a new product feature, a modification to an existing one, or anything else you can think of that will help us make this product better—we'd like to hear from you.

To help make Extensis PhotoAnimator better, please…

1. Print your name, address, and phone number below and sign your name.
2. Describe your idea or comment.
3. Tear this page out and mail or fax this sheet to Extensis.

I understand that no compensation will be awarded for my suggestion.

My suggestion is…

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. . . .

. . . .

Name

Street Address

City	State	Country	Zip/Postal Code

Daytime Phone	Daytime Fax

Thanks for your suggestions! Hopefully you'll see your ideas in future versions of this or other Extensis products.