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# 7

## Using WebAnimator's Advanced Features

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This chapter describes features that you can use to enhance and customize your scenes. All of these features are optional and allow you more flexibility and control over WebAnimator scenes. They also give you powerful tools to make your scenes more exciting and fully interactive.

This chapter covers:

- Naming keyframes
- Adding sound segments and sound tracks
- Customizing the timing of scenes and keyframes
- Looping keyframes or branching to other areas of your scene
- Creating buttons to jump to other areas of your scene and send messages to your Internet WWW browser
- Creating and using animated Sprite objects
- Applying transitions between keyframes and jumps
- Smoothing animated sequences
- Creating projects by combining multiple scenes

### Changing keyframe names

Names are automatically given to each keyframe in your scene. Keyframe names are used to create scripts or buttons which branch to other keyframes.

WebAnimator allows you to create your Storyboard's modularly (that is, in discrete units which may be joined in a variety of ways). These modules are made accessible through Names. For example: You want to create a part of your scene which lists the various areas of your Web site and you want that section to be able to be accessed from anywhere in your scene. You would reference the name of the first keyframe of that section and place an "return from branch" frame script after the last keyframe. You could then specify the module as a destination with "Frame Script" commands from the Animation menu.



The Names button within the Storyboard view tool palette displays the keyframe names below each keyframe and allows you to change name of any selected keyframe. You can also use the “Change Name...” command from the Animation menu to change the name of the displayed keyframe in the Animation view.

**To learn more about**

**refer to**

Frame Scripts

“Scripting and branching keyframes,” on page 7-16

To name a keyframe:



**1. Switch to the Storyboard view.**

Use the View Bar buttons on the right side of the window to switch between views.



**2. Click Names in the Storyboard view tool palette, or choose “Viewing Info” from the View menu and select “Names” from the cascading menu.**

The information beneath the keyframes disappears and default keyframe names appear below the keyframes.

**3. Click beneath the keyframe you want to rename, and enter a new name.**

Names can be up to 30 characters in length, spaces are valid.

## Working with sound in your scene

Working with sound in WebAnimator is just as simple as working with the animation of the scene. WebAnimator provides you with easy to use sound segments. You may easily create multimedia graphic scenes with digitized clip sound, record your sounds directly from a microphone, from a CD currently playing on your computer, or use sounds which have been recorded by other programs in your scenes. Let’s take a quick look at the possibilities.

*Sound segments* contain the sound for keyframes and scenes. Each scene can use up to four *sound tracks*. This allows you to play multiple sounds at the same time by placing them in the same keyframes on different sound tracks.

Segments begin and end on keyframes. A segment can begin and end within one keyframe, extend across several keyframes, or even extend across all keyframes. During playback, sounds begin playing when the keyframe containing the beginning of the sound segment is reached. Normally sounds play until completed, until the scene ends, or until another sound segment is reached. Through synchronization, sounds can be made to play along with animation. For example,

you might set up an animated scene in which the animated scene pauses on screen until the corresponding voice-over is completed. When the voice sound segment is completed, playback proceeds with the next animated keyframe.

**Template Studio view** Sound can be applied to each line of text (track 1) and to the background (track 4), such as background music.

**Animation/Storyboard view** Where most of your sound features and commands are available. You can create master sounds and sound segments, stretch sound segments, synchronize sound, etc. If you are in the Storyboard view, you must be in the sound mode in order to work with sound. Click on the Sound button in the Storyboard view tool palette to change modes.



Sounds can be applied in the Animation, Template, and Storyboard views; however, the Storyboard view allows you more control over displaying sound tracks and editing the segments.

To learn more about	refer to
Applying sound to templates	"Adding or changing sounds," on page 4-7

## Applying sound to keyframes

Sound can be applied to individual keyframes or to a series of keyframes.

To learn more about	refer to
Applying sound in the Template view	"Adding or changing sounds," on page 4-7

## Applying sound in the Animation view



You can add sound to the currently selected keyframes from the Animation view. The Rec button in the tool palette can be used to add a sound segment and record in the current keyframes. The Storyboard view offers more control over the sound.

To record a sound from the Animation view:



- 1. Switch to the Animation view.**  
Use the View Bar buttons on the right side of the window to switch to the Animation view.
- 2. Select the keyframes to which you want to apply sound.**  
You can use the Forward and Reverse buttons in the Animation view tool palette to switch keyframes. For more information on selecting keyframes, refer to "Selecting objects and keyframes," on page 5-10.

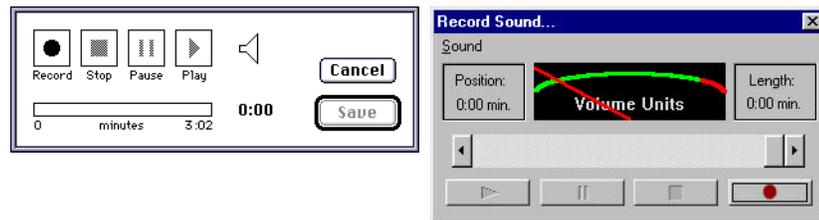
- (Macintosh, Recording from CD only) Insert your CD, launch your CD audio software, and play the track you want to record.**

If you have an external CD or other input device, you need to select the device in the Apple “Sound” Control Panel.



- Click Rec in the Animation tool palette.**

The following dialog appears:



- Click “Record” and start talking into the microphone or record from the CD playing.**

The slide bar at the bottom of the dialog indicates the amount of time available to record (dictated by free memory) and the decimal time available. The amount of time used in the recording appears next to the slide bar.

- Click “Stop” when you are finished recording.**

You can click “Pause” to interrupt your recording.

- Click “Play” to listen to your sound segment.**

Re-record if necessary.

- Click “Save” to apply the sound segment.**

If you want to exit the dialog without making any changes, click “Cancel.” The sound segment can be modified, viewed, listened to, deleted, or stretched across multiple keyframes in the Storyboard view.

### Applying sound in the Storyboard view



Sound can only be applied in the sound mode. Click Sound within the Storyboard view tool palette to place the Storyboard view in the sound mode. In this mode, any existing sound segments for the current sound track are displayed in the Storyboard view. It is possible to create new sound segments, record sounds, place sound files into selected segments, listen to sounds, synchronize sounds, and stretch sound segments across multiple keyframes.

To place a sound segment, simply click underneath the keyframe where you want the sound. If you want to lay a sound under several keyframes, first place a sound segment under the first or the last keyframe of your selection, then drag one of the sound's end boxes to the other keyframe or choose "New Sound" from the Sound menu. Sound segments must be placed in the Storyboard and selected before recording or pasting a sound to the selected keyframes. After the segment has been placed, click it to select, then either press Cmd/Ctrl-R to record or use the Sound menu.

To create a sound segment:



1. **Switch to the Storyboard view.**

Use the View Bar buttons on the right side of the window to switch between views.



2. **Click Sound in the Storyboard view tool palette or choose "Viewing Info" from the View menu and select "Sound Track" from the cascading menu.**

The Time controls disappear, and the sound mode appears. If the scene contains existing sound segments, they are displayed beneath the keyframes.

3. **Choose "Sound Tracks" from the Sound menu, and select the sound track to which you want to apply sound.**

You can have up to four sound tracks in your scene. Sound tracks allow you to apply background music, voice, button sounds, and special effects. You can play up to four sounds at the same time.

4. **Click beneath a keyframe to which you want to add sound.**

You can also select a keyframe and choose "New Sound" from the Sound menu to add a sound segment to the selected keyframe.

A sound segment appears beneath the selected keyframe. Squares indicate where the segment begins and ends. No sound is currently in this sound segment. If you have a microphone, a CD, or other input device attached to your computer, you can record directly to your scene as previously described. You can also move a previously recorded sound to the segment.



To record a sound:

1. **(Macintosh, Recording from CD only) Insert your CD, launch your CD audio software, and play the track you want to record.**

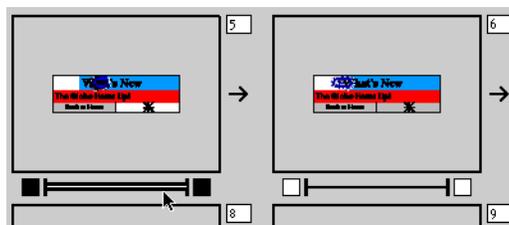
If you have an external CD or other input device, you need to select the device in the Apple "Sound" Control Panel.

**(Recording from a microphone) Make sure the microphone is plugged in.**

Select the microphone in the Sound Control Panel.

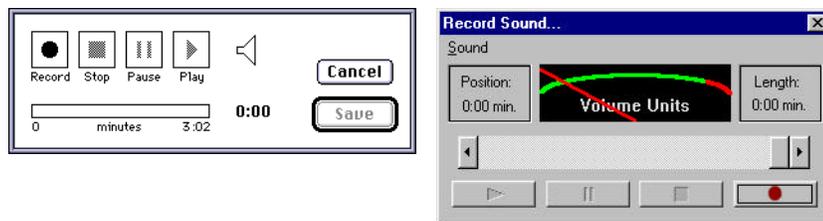
2. **From the Storyboard view's sound mode, click on the sound segment to which you want to apply sound.**

The Storyboard scrolls as it is stretched. You can also switch between sound tracks using "Sound Tracks" from the Sound menu. Black squares appear at each end of a selected sound segment.



3. **Choose "Record Sound..." from the Sound menu, or press Cmd/Ctrl-R.**

The following dialog appears:



4. **Click "Record" and start talking into the microphone or record from the CD playing.**

The slide bar at the bottom of the dialog indicates the amount of time available to record (dictated by free memory) and the decimal time available. The amount of time used in the recording appears next to the slide bar.

5. **Click "Stop" when you are finished recording.**  
You can click "Pause" to interrupt your recording.
6. **Click "Play" to listen to your sound segment.**  
Re-record if necessary.
7. **Click "Save" to save the sound in the selected segment.**  
If you want to exit the dialog without making any changes, click "Cancel." The sound segment can now be modified, viewed, listened to, deleted, or stretched across multiple keyframes.
8. **Click the Play button in the tool palette to review your scene.**

To place a sound file:

1. **From the Storyboard view's sound mode, click on the sound segment to which you want to apply sound.**  
You can also switch between sound tracks using "Sound Tracks" from the Sound menu. Black squares appear at each end of a selected sound segment.
2. **Choose "Open Sound..." from the Sound menu.**  
The standard "Open" dialog appears.
3. **Double-click on a sound file.**  
WebAnimator can open Apple snd files, audio interchange file format (AIFF), or Macromedia SoundEdit files on the Macintosh. In Windows, WebAnimator can open Windows Wave (\*.WAV) files and AIFF files.
4. **Click the Play button in the tool palette to review your scene.**

## Creating and using master and clone sounds

Once you create or open a sound segment, you can use that sound as a *master sound*. A good candidate for defining a sound segment as a master sound is if the sound appears more than one time in the same scene. Storing more than one copy of a sound increases file size and download time. Using clones of master sounds allows you to use the same sound in many different places without increasing the file size or memory requirements of your scenes.

When a master sound is copied, it can be pasted as a *clone sound* (using the "Paste Sound Clone" command in the Edit menu). The clone sound acts like a regular sound, having its own amplitude and synchronization, but it is identical to the master sound and uses no extra memory. Changing the master's sound by re-recording over the existing master sound, or opening a sound over it changes all of its clones.

Master and clone sounds can only be created and applied from the Storyboard view. You can have multiple master sound segments within the same scene.

If a master sound is deleted, all clones are deleted. You cannot paste a clone over a master sound. If a master or clone sound is copied, it can be pasted either as a regular, independent sound or pasted as clone sound.

To create a master sound:

1. **From the Storyboard view's sound mode, click on the sound segment which you want to use as a master sound.**

The Storyboard scrolls as it is stretched. You can also switch between sound tracks using “Sound Tracks” from the Sound menu. Black squares appear at each end of a selected sound segment.

2. **Choose “Master Sound” from the Sound menu.**

The selected sound becomes a master sound. An “M” appears to the left side of the sound segment, indicating that it is a master sound.



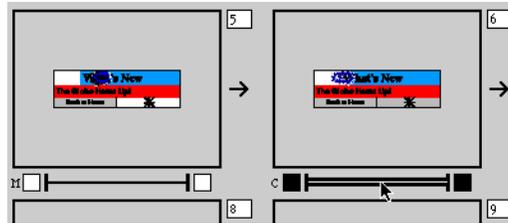
To create a clone sound:

1. **From the Storyboard view's sound mode, select a master sound segment.**

Master sound segments are identified with an “M” to the left side of the sound segment. A selected sound segment has black squares at each end of the segment.

2. **Choose “Copy Sound” from the Edit menu or press Cmd/Ctrl-C.**
3. **Select the keyframe you want to contain the sound clone.**
4. **Choose “Paste Sound Clone” from the Edit menu.**

A “C” appears next to the pasted sound segment, indicating that it is a clone sound. You can also paste the copied sound as a regular, independent sound by choosing “Paste Sound” from the Edit menu.



## Saving sound segments

Any sound segment from any track within the current scene can be saved in a SoundEdit file format. Sound segments can only be saved from the Storyboard view.

To create a clone sound:

1. **From the Storyboard view sound mode, select a sound segment.**  
The Storyboard scrolls as it is stretched. You can also switch between sound tracks using “Sound Tracks” from the Sound menu. A selected sound segment has black squares at each end of the segment.
2. **Choose “Save Sound As” from the Sound menu.**  
A standard “Save As” dialog appears.
3. **Enter the name of the file to be saved.**  
You can also change the location of where the file is to be saved or create a new folder.
4. **Press “Save” to save the sound to the selected location.**  
If you want to exit the dialog without saving the file, click “Cancel.”

## Removing sound segments

You can delete sound segments in the Storyboard view simply by selecting a sound segment and pressing the Delete key or choosing “Remove Sound” command from the Edit menu. This completely removes the sound from the scene. It cannot be undone or pasted. You can also use “Cut Sound” from the Edit menu if you want to paste the sound in a different location.

If a master sound is deleted, all clones are deleted.

## Adjusting sound segments

Once sound segments are applied to a keyframe, you can stretch them across multiple keyframes.

**Note:** This does not change the length of the played sound. It allows you to synchronize the sound with the animation occurring over one or more keyframes.

To learn more about	refer to
Synchronizing sound	"Synchronizing sound in your scene," on page 7-11

To stretch a sound segment:

1. **From the Storyboard view's sound mode, select a sound segment.**  
The Storyboard scrolls as it is stretched. You can also switch between sound tracks using "Sound Tracks" from the Sound menu. A selected sound segment has black squares at each end of the segment.
2. **Click on one end of the sound segment and drag it left and right within the same row, or up and down to stretch the segment to other rows of keyframes.**  
The segment can stretch the length of the entire scene or one keyframe. Now you are ready to synchronize the sound with the animation in the keyframes over which the sound stretches.

## Listening to a sound segment

You can listen to any selected sound segment within any sound track in the Storyboard view.

To listen to a sound segment:

1. **From the Storyboard view's sound mode, select a sound segment.**  
The Storyboard scrolls as it is stretched. You can also switch between sound tracks using "Sound Tracks" from the Sound menu. A selected sound segment has black squares at each end of the segment.
2. **Choose "Listen to Sound" from the Sound menu or press Cmd/Ctrl-L.**  
The selected sound segment and track plays until it is finished.

## Adjusting the sound volume

Sound volume can be different for every sound segment in every track. For example, this is useful if you want your background music to play more softly than your voice tracks. You can then raise the volume of the background track when the

voice concludes. Volume applies to the entire sound segment, so if the segment stretches across multiple keyframes, the sound maintains the same volume throughout the entire length of the segment.

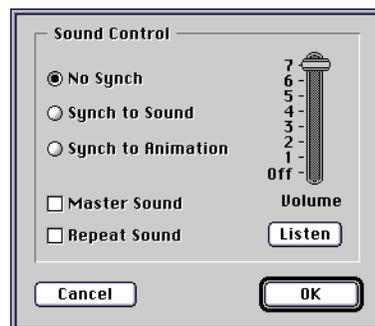
To adjust the sound volume:

1. **From the Storyboard view's sound mode, select a sound segment.**

The Storyboard scrolls as it is stretched. You can also switch between sound tracks using “Sound Tracks” from the Sound menu. A selected sound segment has black squares at each end of the segment.

2. **Choose “Sound Options...” from the Sound menu.**

The following dialog appears:



3. **Adjust the slide control on the right side to adjust the volume.**

Click “Listen” to preview the volume. The following sections discuss how to use these options for controlling the synchronization of master and repeating sounds. These work identical to the commands in the Sound menu.

4. **Click “OK” to apply the changes.**

If you want to exit the dialog without making any changes, click “Cancel.”

## Synchronizing sound in your scene

WebAnimator offers several options for synchronizing sound and animation together. The “Synchronize” or “Fit Animation to Sound” commands from the Sound menu can be used to synchronize sound in your scene. You can synchronize the sound or the action of your scene to the other. The default setting in WebAnimator is no synchronization. There may be times when you may want to synchronize the action to the sound, or the sound to the action. For example, you might show a scene depicting sales for the year and wish it to remain until its

attached voice explanation is finished. On the other hand, you might have a music sound track for an action which halts the moment the action is finished. These effects may be achieved through synchronization.

## Synchronizing your animation and sound

The “Synchronize” command consists of three options for synchronizing your animation and sound. “No Synch” removes any previous synchronization to the selected segment, “Synch to Sound” synchronizes the sound to the animation, and “Synch to Animation” synchronizes the animation to the sound.

To synchronize animation and sound:

1. **From the Storyboard view's sound mode, select a sound segment.**

The Storyboard scrolls as it is stretched. You can also switch between sound tracks using “Sound Tracks” from the Sound menu. A selected sound segment has black squares at each end of the segment.

2. **Choose “Synchronize” from the Sound menu and select a synchronization command from the cascading menu.**

You have the following options:



**No Synch** Default setting. No synchronization between the sound and the action occurs, so both play independently. With this setting, the sound continues to play until it is finished or until another sound segment is encountered.



**Synch to Sound** The action continues as long as the sound continues. If the sound takes longer to play than the action, the action pauses on the last frame of the sound segment until the sound has finished, before proceeding to the next keyframe. If the sound takes less time to play than the action, the action jumps to the next keyframe whenever the sound is finished. An “S” is displayed at each end of the sound segment within the Storyboard view sound mode.



**Synch to Animation** The sound continues as long as the action continues. If the action takes longer to play than the sound, the sound plays normally and then stops while the action finishes, before proceeding to the next keyframe. If the action takes less time to play than the sound, the sound is cut off when the keyframe is finished. An “A” is displayed at each end of the sound segment within the Storyboard view sound mode.



3. **Click Play in the Storyboard view tool palette to view and hear your changes.**

## Fitting animation to sound

The most powerful of WebAnimator's sound handling features is "Fit Animation to Sound." The "Fit Animation to Sound" changes the time the action takes to playback so it fits exactly to the time the sound takes to play. Unlike the "Synchronize" command, it will not cut off the animation if the scene is too long. If the sound takes longer to play than the action, the time settings in the keyframe's time controls are modified to fit it exactly to the sound, slowing down the action. If the sound takes less time to play than the action, the time is reduced to fit it exactly to the sound, speeding up the action.

Note that using "Fit Animation to Sound" changes the time control for the affected keyframe(s). In order to undo this change, you must manually reset the time control(s) of the affected keyframe(s) to their original values.

### To fit animation to sound:

1. **From the Storyboard view's sound mode, select a sound segment.**

The Storyboard scrolls as it is stretched. You can also switch between sound tracks using "Sound Tracks" from the Sound menu. A selected sound segment has black squares at each end of the segment.

2. **Choose "Fit Animation to Sound" from the Sound menu.**



3. **Click Play in the Storyboard view tool palette.**

The sound and animation are in perfect synch. Notice that the speed of animation has been changed to fit the length of time of the sound segment. The time has been changed for the keyframes. To see this, you need to look at the times allotted for each keyframe in the Storyboard view time mode.

If you have stretched the sound over several keyframes, the entire sequence of keyframes will fit to the sound.

## Adjusting keyframe timing

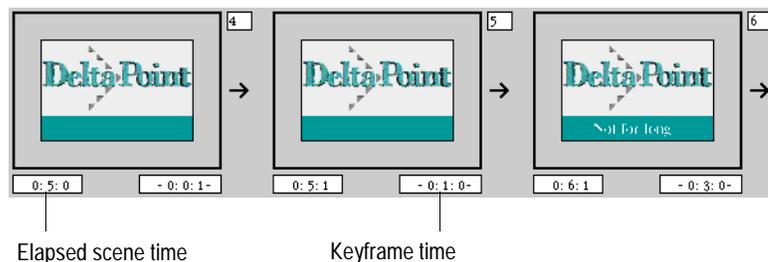
WebAnimator allows you to change the playback time of a single keyframe or a selected number of keyframes. The time specified for a keyframe is the time it takes objects to reach their positions and sizes in the following keyframe. In other words, by changing the time, the speed of the animation is altered.

You may change the time a scene, or part of a scene, takes to play in several ways. You can change it so the first keyframe takes twice as long to play as the other frames. But you may change the time it takes to play the whole scene just as easily.

Timing may be changed in the Storyboard or Animation views for a single keyframe, multiple keyframes, or the entire scene using “Change Time...” from the Animation menu.

#### Time

To change the timing in the Storyboard view, you must be in the time mode. To switch to the time mode and display the keyframe and scene time controls, click on Time in the Storyboard view tool palette, or choose “Viewing Info” from the Views menu and select “Times” from the cascading menu. The control in each lower left corner indicates the accumulative time of the scene up to that keyframe. This is given in minutes, seconds, and frames (30 frames to a second, a default of one second per keyframe). The control in each lower right corner indicates the timing of each keyframe (and its associated in-between frames).



In addition to the “Change Time...” command, you can change the time for individual keyframes within the Storyboard view by editing the time directly below the keyframe. In the Animation view, you can change the time in the Animation tool palette.

In the Animation view you can also change the timing using the Time Controls in the Animation view tool palette. If there is more than one keyframe selected in the Animation view, all timing changes made using the “Change Time...” command affect all selected keyframes. If you change the time in the Animation view tool palette, only the first keyframe in the selected group of keyframes is affected, no matter what keyframe is displayed.

The “Fit Animation to Sound” command changes the timing of the keyframe to fit a sound segment to the animated sequence, overriding any existing timing.

#### To change the keyframe times:

1. **From the Storyboard view's time mode, select a keyframe time control.**

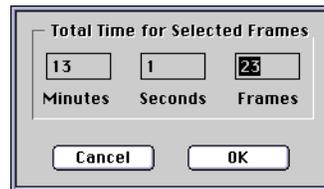
From the Animation view, display the keyframe to which you want to change the keyframe timing.

You can also select multiple keyframes in the Animation or Storyboard views to change the times. To select all keyframes in the current scene, choose

“Select All” from the Edit menu. To select multiple keyframe time, click on the elapsed keyframe time control (on the right bottom side of the keyframe) and drag your cursor to the keyframe time control of the last keyframe to which you want to apply changes.

**2. Choose “Change Time...” from the Animation menu.**

The following dialog appears:

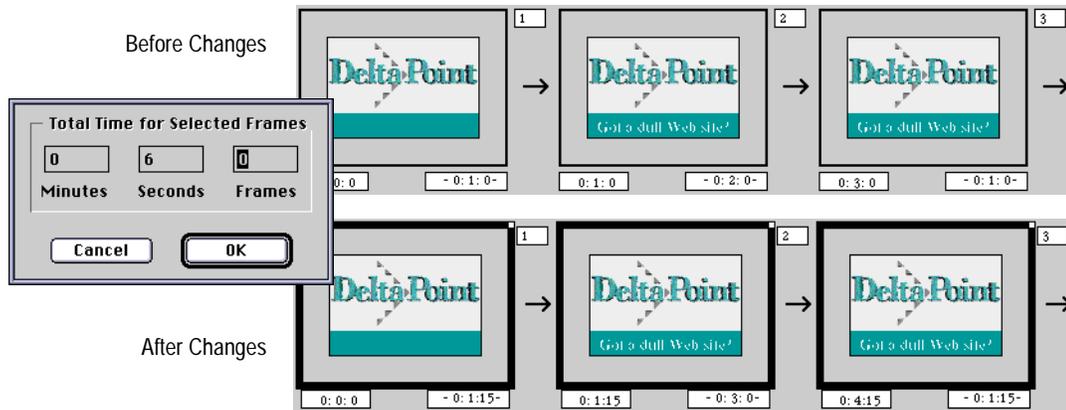


The total time for the selected keyframes is displayed, in minutes, seconds and frames. You may change the total time of the selected frames here.

**3. Enter the new time for minutes and seconds for the selected keyframe(s). If you want to add more animation frames between the selected keyframes, enter the number of frames in the “Frames” entry box.**

The total time entered for the keyframes is distributed proportionally between the selected keyframes. For example, if three new keyframes are selected when the command is invoked, the Change Time dialog may indicate that these three keyframes take three seconds to playback (the default time per keyframe is one second, or, thirty animation frames). By changing the playback time to six seconds, the keyframes now play at two seconds apiece (or sixty animation frames).

However, if the second of the three keyframes is initially set at two seconds while the first and third are set at one second each, the dialog indicates that the scene takes four seconds to play. Then, if the time is changed to six seconds for the three keyframes, this new time is distributed proportionally. The first and third frames take one and a half seconds, forty five animation frames each, to play (one second (1) equals 30 frames, and the half second is 15 animation frames), and the second keyframe plays in three seconds (or 90 animation frames). Of course, if all the keyframes of a scene are selected then you can change the time it takes for the entire scene to play to the exact time you need.



4. Click “OK” to change the keyframe(s) time.  
If you want to exit the dialog without saving the changes, click “Cancel.”



5. Click Play in the tool palette to view your changes.

To learn more about	refer to
Synchronizing sound	“Synchronizing sound in your scene,” on page 7-11

## Scripting and branching keyframes

Scripting and branching allows you to control the flow of the action during playback. Usually, keyframes are played in the order in which they appear in the Storyboard view, but the playback order may be changed using “Frame Script” from the Animation menu.

Scripting allows you to loop on a selection of keyframes, repeat a single keyframe, or branch or “jump” to different parts of your scene. You can choose between several scripting options. Loops can be set up so that certain keyframes repeat a number of times or repeat until the user clicks the mouse. Branches can also be scripted so that when the viewer clicks the mouse or the scene branches on the completion of the sequence. The keyframe script you choose applies to all selected keyframes.

Script icons appear after each keyframe in the Storyboard view. These icons indicate the type of scripting used in the scene. The default frame script is the right pointing arrow, or the Continue icon. When the playback order is changed through Frame Script, other icons are inserted which represent loops, branches to other keyframes, and return from branch markers:

-  **Continue** Continues onto the next frame in the sequence. This is the default sequence for all WebAnimator scenes.
-  **Always branch** When the scripted keyframe is played, it automatically branches to the selected keyframe and then continues playing from that keyframe.
-  **Always branch and return** When the scripted keyframe is played, it automatically branches to the selected keyframe and then returns to play the next keyframe following the scripted keyframe.
-  **Branch on mouse click and return** When the scripted keyframe is played, the user must then click the mouse to branch to the selected keyframe. The scene then returns to play the next keyframe following the scripted keyframe.
-  **Branch on mouse click** When the scripted keyframe is played, the user must click the mouse to branch to the selected keyframe. The scene continues playing from that keyframe.
-  **Loop** Repeats a single keyframe or series of keyframes a specified number of times or until the mouse button is clicked.
-  **Return from Branch** Identifies the last keyframe in the branch sequence. Once this keyframe is reached the scene branches back to the keyframe following the initial scripted keyframe.

## Repeating a sequence of keyframes

You can create scripts which repeat a series of keyframes. One type of script repeats the sequence until the viewer clicks the mouse button, and the other is a script with a set number of times the sequence repeats before moving on to the next keyframe.

### Repeating until the mouse button is clicked

This type of script can be used to repeat the animation and sound track of the selected frames until the mouse button is clicked. Use this selection to encourage the viewer to respond to the current keyframes. For example, you might use this command to allow the viewer to take his or her time absorbing the information you

have presented. When the viewer is ready to move on to the next sequence, a mouse click does the job. After a click, action continues with the keyframe that follows the loop.

To repeat keyframes until the mouse is clicked:

1. **Select the keyframes which contain the action you want to repeat.**  
You can hold down the Shift key to select multiple keyframes. Make sure you include the keyframe in which the action ends. In order for the sound track to repeat, the beginning and end of the sound track must be found in the keyframes selected for repetition.
2. **Choose "Frame Script" from the Animation menu and select "Repeat Until Mouse Button" from the cascading menu.**



The repeat arrow appears next to the last keyframe in the sequence.



3. **Click Play in the tool palette to view your changes.**

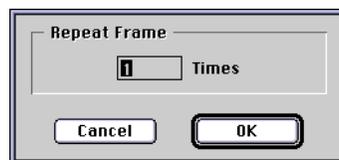
Repeating a predetermined number of times

Scripts can also be used to specify the number of times you want the action in the selected keyframes to repeat during playback. The action and sound track of the selected frames continues to repeat the number of times you have specified. After the repetition, action continues with the next keyframe.

To repeat keyframes until the mouse is clicked:

1. **Select the keyframes which contain the action you want to repeat.**  
You can hold down the Shift key to select multiple keyframes. Make sure you include the keyframe in which the action ends. In order for the sound track to repeat, the beginning and end of the sound track must be found in the keyframes selected for repetition.
2. **Choose "Frame Script" from the Animation menu and select "Repeat # of Times" from the cascading menu.**

The following dialog appears:



3. **Enter the number of times you want the selected sequence of keyframes to repeat.**

You can repeat the selected sequence as many times as needed.

4. **Click "OK" to add the script.**



If you want to exit the dialog without saving the changes, click "Cancel." The repeat arrow appears next to the last keyframe in the sequence.



5. **Click Play in the tool palette to view your changes.**

## Branching to a specific keyframe

Branching allows you to "jump" to specified keyframes anywhere in your scene. Once the selected keyframes branch to another keyframe, you can continue on to the end of the scene, or return to the keyframe from which the branch was initiated. Returning to the original keyframe can be done by placing a "Return from Branch" script at the end of the jump sequence.

WebAnimator allows you to create your Storyboard's modularly (that is, in discrete units which may be joined in a variety of ways). These modules are made accessible through named keyframes. For example: You want to create a part of your scene which lists the various areas of your Web site and you want that section to be able to be accessed from anywhere in your scene. You would name the first keyframe of that section and place a "Return from Branch" frame script after the last keyframe. You could then specify the module as a destination with "Frame Script" commands from the Animation menu.

### To learn more about

### refer to

Naming keyframes

"Changing keyframe names," on page 7-1

Ending a branch

"Scripting a return trip," on page 7-21

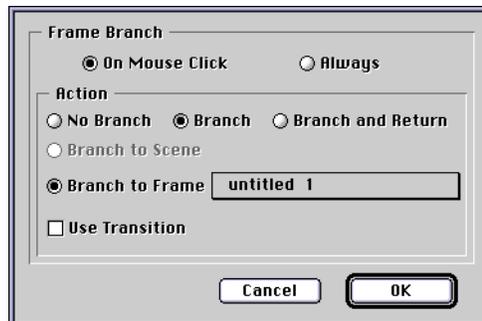
## To branch to other keyframes:

1. **Select the keyframe from which you want to jump.**

You can hold down the Shift key to select multiple keyframes. Make sure you include the keyframe in which the action ends. In order for the sound track to repeat, the beginning and end of the sound track must be found in the keyframes selected for repetition.

2. **Choose "Frame Script" from the Animation menu and select "Branch" from the cascading menu.**

The following dialog appears:



### 3. Select a Frame Branch option.

You have the following options:

**On Mouse Click or Always** Determines whether this branch always occurs, or only occurs if the viewer clicks the mouse button while viewing this keyframe(s). When the viewer needs an option to jump to an alternate keyframe instead of the next keyframe in the Storyboard sequence (perhaps, for example, you might allow them to choose to go to the end of the scene, where you might keep your menu of items), select “On Mouse Click.” “Always” can be used if no choice is required and the action must go to the specified frame.

### 4. Select a branch action option.

You have the following options:

**No Branch** Use this option to remove a previously created script, in the selected keyframes.

**Branch** When the sequence of frames reaches the selected frame, the action branches to the keyframe that is named, and proceeds from that point. When this option is selected, keyframes are listed in the “Branch to Frame” drop-down list box. Use “Branch” when you don’t want the action to return to the keyframe where the selection took place after the selected keyframe sequence is played.

**Branch and Return** When the sequence of frames reaches the selected frame, the action branches to a defined keyframe and proceeds until a “Return from Branch” script (set using “Frame Script” from the Animation menu) is encountered. The action then returns to the source keyframe—the keyframe from which the Branch and Return command was initiated. When this option is selected, keyframes are listed in the “Branch to Frame” drop-down list box.

5. **To branch to a keyframe, select a named keyframe from the “Branch to Frame” drop-down list box.**

This option is only available if “Branch” or “Branch and Return” have been selected. If you select this option, you must also select a named keyframe from the drop-down list box. This list box contains all of the named keyframes in the current scene. This is used to identify the next action sequence the branching creates.

6. **(Optional) Click in the “Use Transition” check box to apply a transition to the branch sequence.**

Since you are branching to a different part of your scene, you may wish to soften the jump by applying a transition to the branch. This provides a great way to transition between two keyframes which may be contrasting in color and subject. When you select this option, the Transitions dialog is displayed and you may select a transition effect. Refer to “Applying keyframe transitions,” on page 7-29 for additional information.

7. **Click “OK” to add the script.**

If you want to exit the dialog without saving the changes, click “Cancel.” One of the branch arrows appears next to the last keyframe in the sequence.



8. **Click Play in the tool palette to view your changes.**

## Scripting a return trip

Once the scripting branches out to other keyframes, you can loop back to the original script sequence once the branch sequence is complete. This is done by identifying the last frame in the branch sequence as the “return from branch” keyframe. This frame script returns the scene back to the keyframe from which a “Branch and Return” script had previously originated.

To script a return from a branch:

1. **Select the last keyframe in the branch sequence.**  
Make sure you include the keyframe in which the jump action ends.
2. **Choose “Frame Script” from the Animation menu and select “Return from Branch” from the cascading menu.**



The end of performance arrow appears next to the last keyframe in the sequence.



3. **Click Play in the tool palette to view your changes.**

When your scene reaches the frame you scripted to return from the branch, the action will go back to the keyframe from which the Branch and Return command was issued.

## Removing a script

The “Continue” Frame Script command from the Animation menu is the default script applied to all new keyframes. The action continues in the sequence shown in the Storyboard view. This selection can also be used to remove keyframe scripts previously inserted in selected keyframes.

To remove a script:

1. **Select the keyframe(s) which contains the scripting.**

If the script extends across multiple keyframes, select all keyframes from which you want to remove the scripting.

2. **Choose “Frame Script” from the Animation menu and select “Continue” from the cascading menu.**



The script is removed from the selected keyframe and the continue arrow appears next to the keyframe.

## Creating a scripted button

Button scripting allows you to program a button or other object to initiate a script or branch to other areas of your scene or to another Internet Web page URL location. Buttons can be any WebAnimator object and can only be defined in the Storyboard and Animation views. Buttons can be created in the Draw view or imported in the Animation or Storyboard views.

Buttons are one of WebAnimator’s most powerful interactivity tools. Using buttons, you can send messages to the Web browser to go to other Web pages, send e-mail, and more. You can easily create buttons that depress and make clicking sounds when clicked. You can also create buttons that branch to different keyframes on mouse over actions, creating what are commonly referred to as “roll-overs.” This provides you with much more interactivity than a simple image would.

Scripting allows you to create an interactive scene in which the viewer may choose which part of the scene to view by clicking the mouse on an object or “button.” Any graphic, text, or animated object can be made into a button with this command. Clicking the button during playback causes a branch to a different part of the scene. The scene can be scripted so that after branching and playing a sequence of keyframes, the scene returns to the keyframe where the button was pressed. Or it can be scripted not to return, but to continue playing until another branch or the end of the scene.

Buttons can be scripted anywhere in the scene. Your scene can be scripted so that the viewer may make a selection which branches to another part of the scene, and then is again given a selection of choices to make.

A single object in a scene may have different button scripts throughout the scene and may branch to different keyframes.

To create a button:

**1. Name the keyframe to which the button will branch.**

For information on naming keyframes, refer to “Changing keyframe names,” on page 7-1.

**2. Create or import an object to be used as the button.**

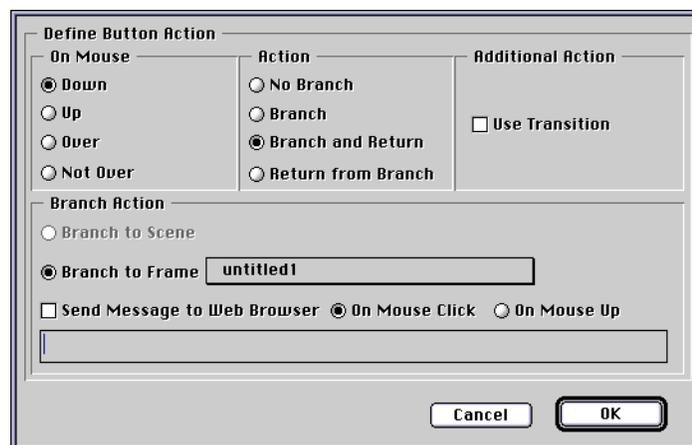
Depending on the type of effect you want from your button, you may need more than one graphic. For example, if you want to create a roll-over, you need to create the keyframe to be used as the roll over action.

**3. Select an object in the Storyboard or Animation views.**

Object handles appear around the selected object.

**4. Choose “Make Into Button...” from the Animation menu.**

The following dialog appears:



**5. Select a mouse action and the type of branch action for each mouse action.**

This allows you to select a different branching action for each mouse action. For example, if you want to change the color of the button when the cursor sweeps across the button, you can select “Over” for the mouse action and “Branch and Return” for the branch action. In this option, you would need to

create a separate keyframe with a highlighted button, and create a “Return from Branch” for that keyframe.

You have the following options for mouse and branching actions.

**On Mouse** Lets you specify actions to take based on different states of the mouse. You can specify actions for each of these mouse states in this dialog.

**Down** Lets you specify action to take when the mouse button is pressed.

**Up** Lets you specify action to take when the mouse button is released.

**Over** Lets you specify action to take when the cursor sweeps over the top of the button.

**Not Over** Lets you specify action to take when the cursor is not over the button.

**Action** Determines the type of branching to occur when the selected mouse action is executed.

**No Branch** No branching occurs. This option can be used to remove a previously created script in the selected keyframes.

**Branch** The action branches to the keyframe that is named and proceeds from that point. When this option is selected, keyframes are listed in the “Branch to Frame” drop-down list box. Use “Branch” when you don’t want the action to loop back to the original keyframe sequence once the selected keyframe sequence has completed.

**Branch and Return** The action branches to a defined keyframe and proceeds until a “Return from Branch” script (set using “Frame Script” from the Animation menu) is encountered or until another button sends the “Return from Branch” action. The action then returns to the keyframe where the “Branch and Return” command was issued. When this option is selected, keyframes are listed in the “Branch to Frame” drop-down list box.

**Return from Branch** Causes action to return to the keyframe from which a “Branch and Return” had previously originated.

6. **(Optional) Select additional actions.**

You have the following options:

**Use Transition** Since you are branching to a different part of your scene, you may wish to soften the jump by applying a transition to the branch. This provides a great way to transition between two keyframes which are very

contrasting in color and subject. When you select this option, the Transitions dialog is displayed and you may select a transition effect. Refer to “Applying keyframe transitions,” on page 7-29 for additional information.

**7. To branch to a keyframe, select a named keyframe from the “Branch to Frame” drop-down list box.**

This option is only available if “Branch” or “Branch and Return” have been selected. If you select this option, you must also select a named keyframe from the drop-down list box. This list box contains all of the named keyframes in the current scene. This is used to identify the next action sequence the branching creates.

**8. (Optional) Enter a URL address to branch the script to a different Internet address (Web page).**

Enter the text in the standard `http://www.address` format. Make sure you enter the complete Internet address.

**9. Click “OK” to add the script.**

If you want to exit the dialog without saving the changes, click “Cancel.”



**10. Click Play in the tool palette to view your changes.**

## Creating Sprite objects

A *Sprite object* is another type of object which can be created in the WebAnimator Draw view. A Sprite object allows repetitive animation of an object within the scene, totally autonomous from the keyframe action.

Sprite objects are composed of *cels*. Unlike the frames that are automatically created between each keyframe, you must create every cel of a Sprite object. Therefore, the more cels you use to create your Sprite object, the smoother the animation appears. Cels are created in the Draw view using the New Cel button in the tool palette.

Objects, both simple and complex, can be used to create Sprites. Sprites can also be imported to your scene from 3D text programs such as Macromedia Director, Specular LogoMotion, Pixar Typestry, and other programs that create animated GIF files. Animated PICS and GIF images are perfect for Sprite objects. FICS format is only for Macintosh users. Both WIndows and Macintosh versions can import animated GIF files.

**Note:** Be careful when creating and importing animations. Since each frame contains a bitmap image, the size of the animation can become very large. Make sure that the animation is as small and contains as few frames as possible.

An example of a Sprite object is a horse that trots across the screen. Here the combined cels of the trotting horse make up the Sprite object. Each of the object's cels are played one after another, regardless of movement and size changes. Other examples might be: a logo that flashes on and off with flashing lights in colors or patterns; buttons that spin or glow, or cartoons that walk across the scene. Such effects, and many more, can be achieved with Sprite objects.

Sprites are made up of cels. Each cel is a static frame that you create. WebAnimator plays each cel in sequence to make a Sprite object. The result is similar to a cartoonist's flip-book, in which each cel is drawn on a page of paper, and when the book of pages is flipped through, the animation appears.

Sprites only appear in the keyframes where they are placed and when they are displayed in the Foreground viewing plane.

You can also save Sprite objects for re-use by choosing "Save Object As..." from the Cel view Edit menu. This creates a WebAnimator object.

To learn more about	refer to
Naming keyframes	"Changing keyframe names," on page 7-1
Simple and complex objects	"Creating simple and complex objects," on page 5-8
Cels	"Working in the Cel view," on page 2-30
Importing sprites	"Importing Sprite objects," on page 6-2

To draw a Sprite object:



**1. Switch to the Draw view.**

Use the View Bar buttons on the right side of the window to switch between views.



**2. Click "New" in the Draw tools to create a new object.**

**3. Create the first cel or frame of your Sprite object in the Draw view.**

You can use the options described in Chapter 5, "Creating, Editing, Animating, and Playing Scenes" to create objects.



**4. Click New Cel in the Draw view tool palette.**

All of the elements which were present in the first cel are duplicated in the second.

5. **Make any alterations, additions or deletions to your object's elements and then click New Cel button again to begin editing a new cel.**

All of the elements which were present in the second cel are duplicated in the third. The New Cel button inserts a cel identical to the current cel after the current cel.

If you make a mistake, you can delete individual objects in each cel, just as you would when drawing regular objects.

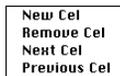
If you decide to remove a cel, you can choose "Remove Cel" from the "Cel" command in the Draw menu.

6. **Continue with this process until your sprite is complete.**

You may cycle through these cels with the buttons described below. You may look at all the cels at once, and adjust the cels times within the Cel view.

## Playing and editing Sprite objects

Sprite objects are played when you play your scene.



**Remove Cel** Deletes the current cel of the selected Sprite object. You can also use the Remove Cel button from the Draw view tool palette to cut a cel.



**Next Cel** Moves to the next cel of the selected Sprite object for viewing or editing. You can also use the Next Cel button from the Draw view tool palette to switch between cels. The number of the cel currently being edited is displayed at the bottom of the Draw view tool palette.



**Previous Cel** Move to the previous cels of your Sprite object for viewing or editing. You can also use the Previous Cel button from the Draw view tool palette to switch between cels. The number of the cel currently being edited is displayed at the bottom of the Draw view tool palette.

### To learn more about

### refer to

Playing scenes

"Playing your scenes," on page 2-33

## Viewing and saving Sprite objects

You can view every cel in your Sprite object in Storyboard fashion by selecting the Sprite object in a keyframe, then switching to the Cel view. Use the View Bar buttons on the right side of the window to switch to the Cel view.

The timing for a Sprite object can be changed in the same way a keyframe can. By changing the timing, you can make all or portions of the Sprite appear to move more quickly or slowly.

You can also save the Sprite object as a WebAnimator object by selecting “Save Object As...” from the Edit menu. In fact, any object can be saved as a WebAnimator object, whether it contains multiple cels or not. In this way, you can create re-usable WebAnimator components.

To change a Sprite object's timing:



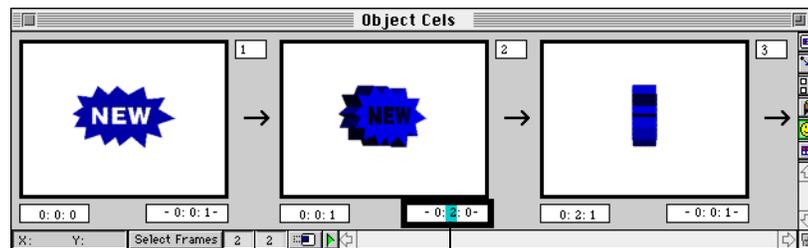
- 1. Switch to the Cel view.**

Use the View Bar buttons on the right side of the window to switch between views.

- 2. Click on the timing controls below the cel whose timing you would like to adjust.**

You can select and change the minute, second, and frame timing for each cel.

- 3. Specify the new time for the cel and click away from the timing controls.**



Changing a cel's time  
from one second to two

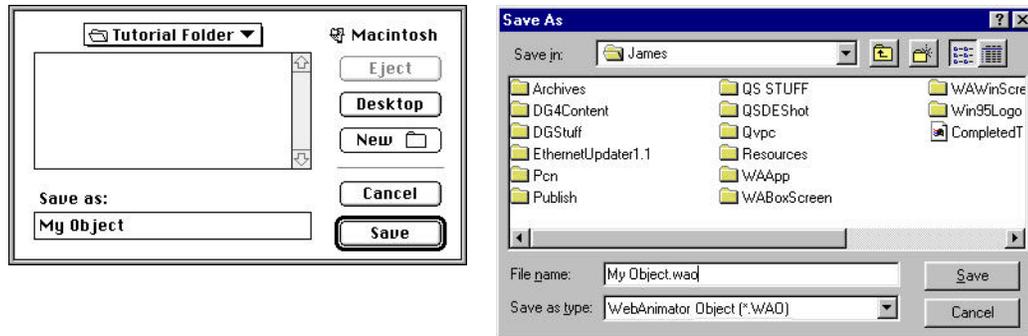
Notice that the elapsed time for the Sprite object reflects your change.

- 4. Return to the Animation or Storyboard view and play your scene to see the results.**

To save a Sprite object for re-use:

- 1. From the Cel view, choose “Save Object As...” from the Edit menu.**

The following dialog appears:



**2. Specify a name and location for the saved object and click “Save.”**

Your object can now be imported into other scenes by choosing “WebAnimator Object...” from the “Import” command under the File menu. This creates a \*.WAO file on Windows.

## Applying keyframe transitions

Transitions are effects similar to those often seen in video presentations and made by effects generators (wipes, dissolves, sweeps). In a transition, the objects and background of the current keyframe are changed into the objects and background of the next keyframe through the chosen effect.

No animation movement or animation size changes occur when a transition is chosen. The speed of a transition effect is determined by the keyframe’s time control (For example, to make a dissolve last four seconds, enter 0:4:0 in the time control of the keyframe before the transition icon). The icon representing the selected transition effect is inserted in the space between the selected keyframes and the keyframes following them.

Transitions can also be applied to branching scripts and scripted buttons.

**To learn more about**

**refer to**

Adjusting the keyframe timing  
Using transitions with scripts  
Using transitions with buttons

“Adjusting keyframe timing,” on page 7-13  
“Branching to a specific keyframe,” on page 7-19  
“Creating a scripted button,” on page 7-22

To apply a transition:

**1. Select the keyframe to which you want to apply the transition.**

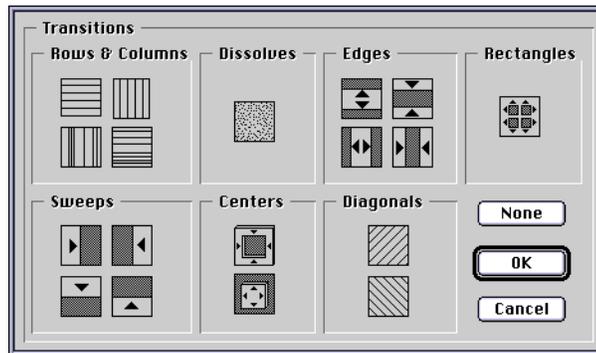
The transition will occur between this keyframe and the next.

If you are in the Storyboard view, click on the desired keyframe. If you are in the Animation view, use the play controls in the tool palette to advance to the desired keyframe.

Trans

2. Click Trans in the Animation view tool palette, choose "Transitions..." from the Animation menu, or press Cmd/Ctrl-T.

The following dialog appears:



3. Click on the type of transition to be used on the selected keyframe.  
To remove existing transitions, click "None."
4. Click "OK" to apply the transition.  
If you want to exit the dialog without making any changes, click "Cancel."

## Smoothing your animation

Smoothing allows you to eliminate the choppiness from your animated sequences in your scene. You can set up preferences for smoothing and apply those preferences to selected keyframes. Remember, if you edit keyframes which contain smoothing, the smoothing is removed.

**Note:** Smoothing dramatically increases the size of your scene because it stores animation frames in the scene file. This is not recommended for scenes that will be played over the Web. You can however, apply smoothing to only a few frames. Apply smoothing judiciously!

## Setting preferences

Preferences for how animation is smoothed can be made for the selected frames, or for a subsequent smoothing when “Smooth Frames” is selected.

To set your smoothing preferences:

1. Choose “Smooth Animation” from the Animation menu and select “Smooth Preferences...” from the cascading menu.

The following dialog appears:



2. Make your selections as needed.

You have the following options:

**Regular Smoothing Bitmaps** Determines the type of smoothing applied when “Smooth Frames” is selected. This option is the fastest and least memory-intensive selection for smoothing by redrawing the objects as bitmaps. However, it is not as smooth as using “Fine Smoothing No-Jaggies.”

**Fine Smoothing No-Jaggies** Determines the type of smoothing applied when “Smooth Frames” is selected. This option is a slower process in which the objects are redrawn as vectored objects. This is advantageous when objects are changing size. On play-back the animation is smoother with straight lines and clean font movements.

3. (Optional) If keyframes are selected, you can click “Smooth Selected Frames” to apply the smoothing preferences to those keyframes.
4. Click “OK” to set smoothing preferences.

If you want to exit the dialog without making any changes, click “Cancel.”

## Smoothing keyframe animation

WebAnimator allows you to smooth the playback of any selected keyframes. WebAnimator can play back 30 frames of animation per second. However, in its default, un-smoothed mode, WebAnimator divides its time between computing and displaying frame images. If keyframes are complex, the computing time takes longer, so fewer frames per second can be displayed, and the action may look choppy.

When a selection of keyframes is smoothed, WebAnimator “precomputes” the 30 frames per second that are displayed during playback, compresses the information, and stores it in memory. Even though it is compressed, smoothing uses a lot of computer memory (RAM), so don’t smooth where it is not needed.

Don’t smooth transition effects (as they play just the same), or any other scenes which are not choppy.

The amount a memory required to smooth a scene depends upon the area of the screen size which changes. In other words, if you have a large square, 4 inches by 4 inches moving across the screen, it takes as much memory to accelerate as it would for four 1 by 1 inch squares to move across the screen.

To smooth keyframe animation:

- 1. Select the keyframes you want to smooth.**  
Remember, smoothing takes a lot of memory, so don’t smooth where it is not needed.
- 2. Choose “Smooth Animation” from the Animation menu and select “Smooth Frames” from the cascading menu.**  
The selected keyframes are smoothed based on the smooth preferences previously selected.

## Removing smoothness

Making changes to objects in smoothed keyframes, such as size or position changes, removes the smoothing. It is suggested that you remove any smoothing before editing keyframes. The keyframes can then be re-smoothed after the changes have been made using the “Smooth Frames” command.

Removing smoothing from one part of a smoothed scene removes it from the entire previous selection. For example: If you have smoothed keyframes 1 through 5 and you want to change keyframe 3 you must remove the smoothing from keyframe 3 in order to change it. If keyframe 3 is selected and you remove its smoothing, smoothing is automatically removed from keyframes 1 through 5.

To remove smoothness:

1. **Select the keyframe(s) from which you want to remove smoothing.**

You only need to select one keyframe, because removing smoothing from one part of a smoothed scene removes it from the entire previous selection.

2. **Choose "Smooth Animation" from the Animation menu and select "Remove Smoothness" from the cascading menu.**

The selected keyframes are smoothed based on the smooth preferences previously selected.

## Creating projects

The Project view in WebAnimator allows you to string multiple scenes together so that they play one right after another.

**Note:** Projects only function properly when played directly from the WebAnimator application. They will not function properly when played over the Web. You can, however, create a QuickTime movie of your project, and place the movie in your Web site. Of course when you create a QuickTime movie, branching and scripting within the movie is no longer effective. QuickTime movie files are larger in size than corresponding WebAnimator files.

All of the WebAnimator files that you want to link together do not need to be in the same folder. However, if you move them, links to those files will be lost. Compressed or uncompressed scene files can be added to a project.

To learn more about	refer to
Creating QuickTime movies	"Exporting QuickTime movies (Macintosh only)," on page 6-5

To create a project:

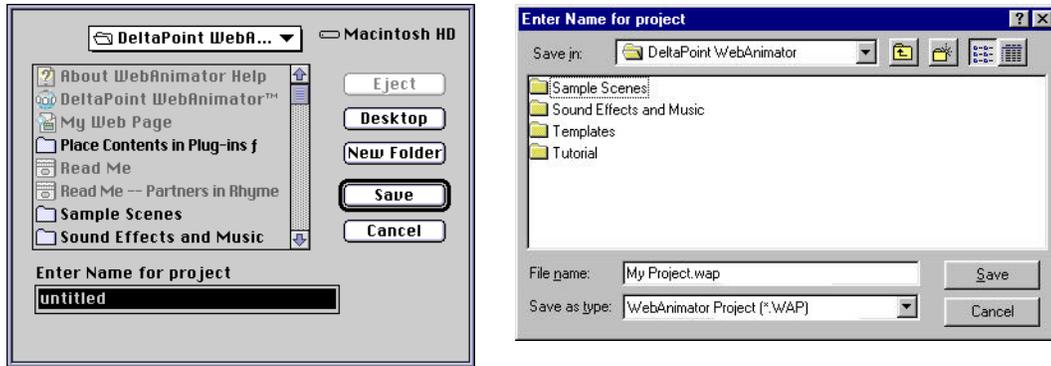


1. **Switch to the Project view.**

Use the View Bar buttons on the right side of the window to switch between views. You can also choose "Project" from the View menu. The Project view appears.

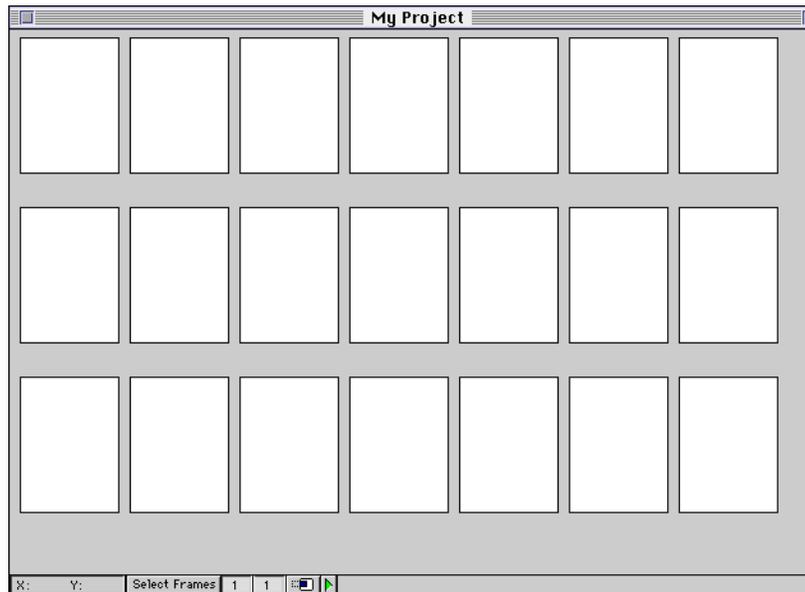
2. **Choose "New" from the File menu.**

The following dialog appears:



3. Enter a name for your project.
4. Click "Save" to create a new empty project file.

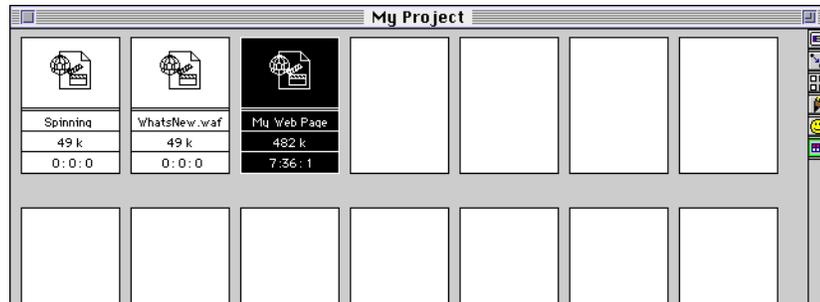
Click "Cancel" to exit the dialog without creating a new file. The Project view appears with empty scene blocks.



5. Choose "Add Scene..." from the Project menu.  
A standard "Open" dialog appears.

**6. Select a file and click "Open."**

Scene information appears in the first scene block in the Project file. The name of the scene, file size, and total run time of the scene appears.

**7. Repeats steps 7 and 8 until all the scenes are added to the project as needed.****8. When you are finished, choose "Save" from the File menu or press Cmd/Ctrl-S.**

## Opening scenes

You can open any scene in the project by double-clicking on the scene or clicking once on the scene and choose "Open..." from the File menu.

## Rearranging scenes

You can re-arrange the order of scenes by sliding the scene from one click to the another.

## Playing a project

You can play the project by choosing "Play Project" from the Play menu.

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