

Welcome to soundsaVR®, the wired sprite QTVR editing tool that embeds directional stereo sound into single or multinode panoramamovies.

READ ME Version 1.1
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System Requirements

soundsaVR requires a Macintosh PowerPC or compatible system with a base requirement of 5 MB of RAM and 5 MB of hard disk space for installation. The sounds and VR movies used will require additional hard disk space and memory. A recommended system configuration for adding sounds to VR movies is 16 MB RAM and 50 MB of hard disk space. soundsaVR requires QuickTime 3.0 to be installed, and requires System 8 or higher. Sound Manager 3.3 should also be installed as some compression codecs require it.

Usage Notes

Adding sounds using soundsaVR should be the last step in the QTVR authoring process. This is due to a special flattening process that permits QuickTime to loop sounds without storing it multiple times. As QuickTime editing software calls the default QuickTime flattening function, when a soundsaVR movie is re-flattened it will grow in size. Only soundsaVR is capable of flattening soundsaVR movies.

Modifications using other editors such as Movie Player will work as long as the movie is not flattened. To flatten the movie, open it with soundsaVR and save the movie again.

soundsaVR preserves embedded media such as custom graphics or wired sprites. This is designed to provide further compatibility with custom authored panoramas. Note that object movies are not supported.

Developers who are using authoring packages with scripting capabilities such as Director or mTropolis, should take note that each node is set to a length of one hour so that sounds can independently loop. At the end of each hour the movie will transition to the next sequential node in the movie file.

Quick Start

- Launch soundsaVR
- Open a QTVR movie with NO object nodes

- Add sounds to all nodes (repeat as necessary)

- Select a node in the movie

- Import required sound files

- Click the "Add Sound..." button

- Choose a sound file from the dialog

- Repeat until all required sounds have been imported

- Set the correct direction for sounds that should pan

- Select a sound from the "Sounds" list box
- Pan the movie to the desired angle
- Click the "Set Angle" button
- Repeat until all directional sounds have been set correctly
- Set the volumes for each sound
 - Select a sound from the "Sounds" list box
 - Drag the volume slider(s) to the desired level
 - Repeat until all sound volumes have been set as desired
- Set the output options
 - Choose the "Save Options..." menu item from the "Edit" menu
 - Configure the checkbox options as desired.

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 - Choose the "Save Options..." menu item from the "Edit" menu
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- Save the output movie
 - Select "Save A Copy As...." menu item from the "File" menu
 - Choose the file destination from the dialog

The Menu Bar

There are three active menu bar items in soundsaVR: File, Edit and Options.
The File menu has four active items: "Open...", "Close", "Save A Copy As...", and "Quit"

The "Open... " menu item will open a dialog to select a movie file. Importing a file that has no panorama track or QTVR track will cancel the process and the user will be notified that the file was not a panorama. When a valid QTVR movie has been selected, a soundsaVR editing window will open, displaying the selected movie file.

The "Close" menu item will close the active editing window. If the movie has been edited, and the changes haven't been saved, a dialog will open prompting the user to save before closing the movie, to close without saving, or to cancel.

The "Save A Copy As..." menu item will open a standard put-file dialog allowing the user to save the current movie with edited sounds. It is recommended that users do not try to overwrite already existing files.

The "Quit" menu item will close all editing windows and Quit the application. As with the Close menu item, the user will be prompted to save any changes.

The Edit menu has one active item; the "Save Options..." menu item will open a dialog allowing the user to select from three checkboxes that determine output format. Selecting the "Fast Start Movie" check box will specify that when the movie is saved out it will support progressive video downloading. When this option is activated both the "Pre Load Audio" and "Fast Start Audio" check box will be enabled and selected. "Pre Load Audio" specifies that all audio tracks will be downloaded before any of the video. If the "Fast Start

Audio"

option is not selected audio will not auto start play until the movie has been completely downloaded. In some scenarios, if wired sprite pause/play controls are added to the movie, the end user can override the behavior you set by initiating audio fast start. See the section "Save Options In Detail" later in this document for more details.

The Options menu has nine active items: the first two, "Degrees" and "Cross Hairs", toggle the info displays on and off. The remaining six menu items set the color of the information displays. The info displays check the dimensions of the panorama track, not the entire movie, and are therefore always placed in their correct positions even if a panorama track has been rotated or if additional media elements have been added to the movie.

The soundsaVR Editing Window

Multiple soundsaVR editing windows can be opened simultaneously, depending on available memory. Several copies of the same movie file can be opened simultaneously in order to save different versions of the movie, and to compare differences in settings. Clicking the windows "zoom box" will reset the window to its original size if it has been changed.

The soundsaVR Editing Panel

Each window contains an editing panel on the left side, that has a "Node List", and "Sound List", as well as buttons to add or delete sounds, and controls that set the volume(s), type (ambient or directional), and looping status of each imported sound.

Add Sound... Button

Clicking on this button will open a dialog box where an appropriate sound file can be selected in the get-file list box. Clicking on Open will import the selected sound into the current node and display it in the 'Sounds' list box. Previously grayed out items in the soundsaVR editing panel will become active. If a sound file (that is not in a QT movie) can be played back in QT3.0, the Open button will change to Convert. Clicking on the button will convert the file to a QT movie, save the converted movie to a specified file/directory, and then import it into the current node.

Remove Sound Button

Clicking this button will remove the currently selected sound from the 'Sounds' list. This button will be grayed out if the currently selected node has no sounds.

Nodes List

There will be only one item in this list if a single node pano is open. If it is a multinode pano, the name of each node contained in the movie will be displayed. Clicking on a node list item will select it as the

current editing

node and the sounds list box will be updated accordingly to reflect any sounds that may have been embedded.

Sounds List

This list box will be grayed out until at least one sound file is imported into the current editing node. To import

a sound file, use the 'Add Sound...' button. Clicking on a "Sounds" list item will select it as the current editing

sound, and update the sound setting controls accordingly. If the currently selected sound is set to be directional, then the movie screen will be updated to display the corresponding view. More than one sound can

be imported into each node, as long as there is enough available memory. However, keep in mind that too

many sounds in a node can confuse the listener.

Auto Play Button

If this check box is selected, the audio for the current node will automatically start playing whenever the end

user enters the node. If this option is not selected you will need to include an external mechanism to start the

sound.

Ambient Sound

If the "Directional Sound" check box for a particular sound is not checked, the sound is considered to be

ambient and its volume will not change based on the pan angle. This is the default state of imported sounds.

Setting Ambient Sound Volume

Ambient sound volumes are set using a single control slider in the "Volume" section of the editing panel.

Drag the slider thumb to the desired sound level to set playback volume. The volume is represented as a percentage of the maximum volume, and its current value is displayed in the upper right of the Volume section.

Directional Sound

An imported sound is considered to be directional (that is, the sound volume changes based on the pan angle)

if the "Directional Sound" check box is checked. The current pan angle is used when clicking on this check box.

When this box is checked, the Volume section of the editing panel will display a second volume control slider

and label the controls "Front" and "Rear" respectively.

Setting a Sounds Direction

The direction of a sound can be changed in two ways: by clicking the "Directional Sound" check box or by

clicking the "SET ANGLE" button after panning to the desired view.

Setting Directional sound volumes

When the current sound to be edited is a directional sound, the "Volume" section of the editing panel displays

two control sliders and corresponding labels "Front" and "Rear".

The slider labeled 'Front' indicates the volume that will be used when the pan angle matches the set direction of the sound source. The slider labeled 'Rear' indicates the volume that will be used when the pan angle is 180 degrees away from direction of the sound source.

Looping Style Pop Up Menu

Selecting an item will determine the loop state of the currently selected sound to indicate type of loop generated for playback.

None will play the sound only once.

Continuous will play the sound repeatedly for the entire duration of the current node.

Random Delay will play the sound repeatedly with random length silence between plays.

Known Issues

1) Object Movies are not Supported

Object VR movies, and multinodes which contain object nodes, are not supported. This is due to the differences between the format of object movies, and panoramic movies. There are no plans to support object nodes, as QuickTime currently does not have support for asynchronous track playback. As a result, this issue will not be addressed by soundsaVR.

2) Each Node in a Multinode Movie MUST have equal durations

Movies containing nodes with different durations will NOT play properly.

When authoring a multinode movie you must use the same number of tiles for every node. If you are using source pict of different dimensions for any reason you can use the soundsaVR QTVR Tile Calculator (free HyperCard stack included with version 1.1) to help find suitable valid tile values for a set of source pict dimensions. This stack also stores calculated values for later reference and allows set naming and searching.

Different horizontal and vertical tile dimensions can be used as long as each node still uses the same number of tiles. The following example is a compatible movie file because each node uses six tiles and will be of equal duration:

Node 1:	1 horizontal tiles	6 vertical tiles
Node 2:	3 horizontal tiles	2 vertical tiles
Node 3:	2 horizontal tiles	3 vertical tiles

If you have problems with a particular movie file, then please send it (or one like it) to us for testing at "dev@smgVR.com". You should send the original movie before it is edited with soundsaVR.

Reporting problems

soundsaVR is a new application that utilizes many components recently introduced in QuickTime 3.0. As a

result of the wide variety of different types of sound compressors, VR creation programs and system configurations, it is expected that some conflicts and bugs are going to be found.

Please consult the FAQ for information on current soundsaVR issues and bugs. If you believe that you have found a different problem, please ensure that you can reproduce it, and check if it still occurs when starting up with only the required standard Apple extensions. Please also make sure that all source movies and sounds play correctly in MoviePlayer before they are brought into soundsaVR.

If problems persist, please e-mail a detailed description of the problem, how it is triggered, and if possible, an example source movie, as well as what program the movie was authored with, to <dev@smgVR.com>

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