

Step-by-Step

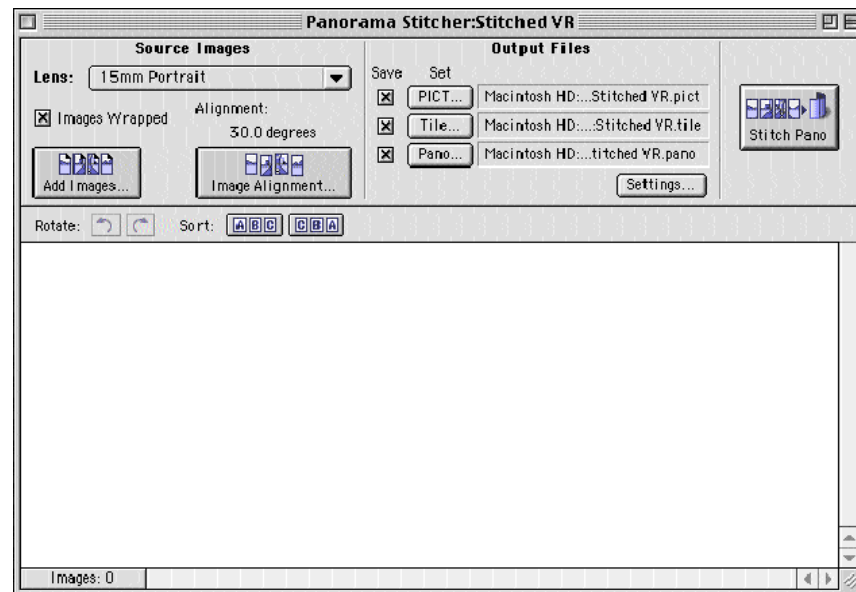
Creating a QuickTime VR Panorama

QuickTime VR Authoring Studio allows you to create 360-degree panoramic scenes by stitching together a series of photographic images. A QTVR panorama creates the illusion that you are standing in the center of a scene by allowing you to navigate in all directions. This Step-by-Step Card describes the process used to make a QTVR panorama.

Making a panorama from a series of pictures

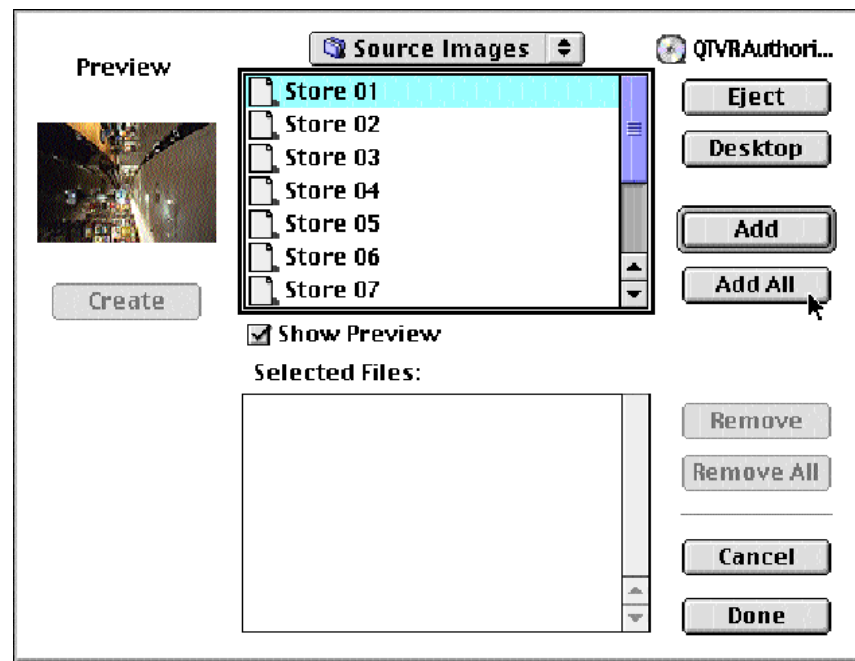
- 1 Open the QTVR Authoring Studio application.
- 2 Choose New from the File menu, then choose Panorama Stitcher from the submenu.
- 3 In the dialog box that appears, type a name for your Panorama Stitcher document, select a location for saving the document, and click Save.

The Panorama Stitcher window appears.



You use the Lens pop-up menu to choose the lens you used to photograph your images.

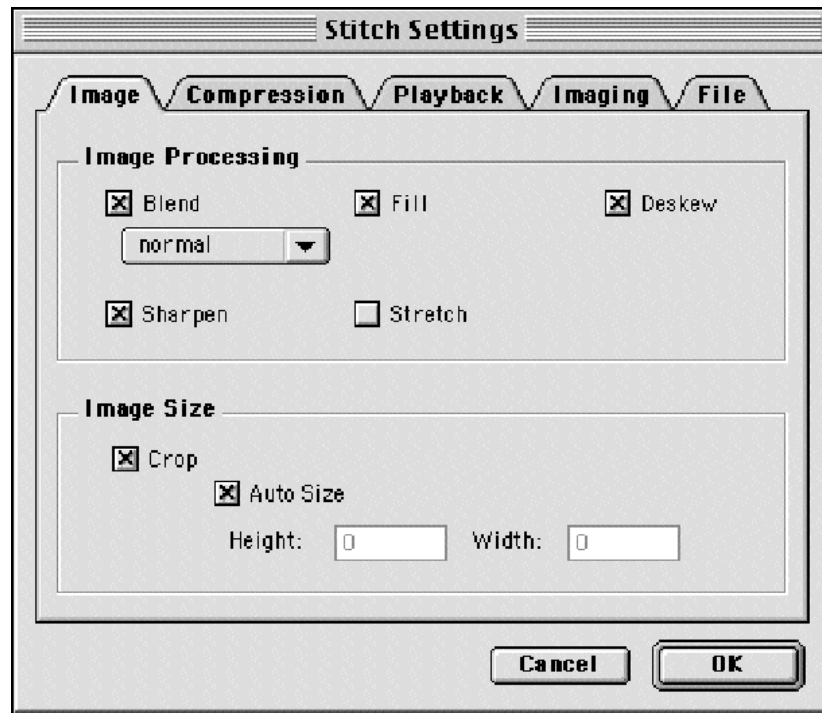
- 4 Since you will use images from the QuickTime VR Authoring Studio CD for this example, choose 18mm Portrait from the Lens pop-up menu.
Tip: New lenses may be added to the list provided. For specific lens information pertaining to your camera, refer to the Electronic user's manual on the CD.
- 5 Click the Add Images button.
- 6 Locate and open the QTVR Authoring Studio CD from your desktop.
- 7 Open the Chapter Source Material folder, and then open the "Chap. 4 Images for Stitching" folder. Open the Source Images folder.



- 8 Click Add All. The list of images appears in the Selected Files portion of the dialog box.
- 9 Click Done. The images appear in the Panorama Stitcher window.
- 10 Use the Rotate buttons to turn the images to the proper orientation, if necessary.
- 11 Click Images Wrapped if the images will provide a 360-degree view.
- 12 Click the Image Alignment button in the Panorama Stitcher dialog box.
- 13 In the Image Alignment dialog box, the default setting is 30 degrees between images. For example, if you captured 12 images for a 360-degree panorama, the degrees between each image is 30. The default setting for vertical alignment is 40 pixels.
- 14 If your images were not captured on a level plane, enter the appropriate information in the Vertical Alignment section. Refer to the electronic user's manual for more specific details.

The vertical offset and search range can be adjusted to compensate for misalignment caused by an unlevel camera.

- 15 Click OK.
- 16 Check to make sure that images are in the proper sequence. You can rearrange the order by dragging the thumbnail pictures to new locations.
- 17 Click the Settings button in the Panorama Stitcher window. In the Stitch Settings dialog box, select the types of processing applied to the stitched image.



- *Blend*: Softens sharp images within an image and where images overlap
- *Fill*: Fills the edge of the image not covered by pixels from the source images with the first non-black color identified by the Panorama Stitcher
- *Deskew*: Compensates for the slight rotation in images that occurs when you capture
- *Sharpen*: Sharpens the blurry images by increasing the contrast of adjacent pixels.
- *Stretch*: Stretches the source images as needed so they can be aligned more accurately
- *Crop*: Removes pixels from the top and bottom of the stitched image to provide a clean edge
- *Auto Size*: Allows the size of the stitched image to be decided by the size of the source images

All options except Stretch under the Image tab are selected by default.

- 18 Click the Playback tab in the Stitch Settings window to set the orientation, viewing size, and field of view of the panorama when the user opens it. (For this example you can leave the default settings.)
- 19 Click OK. The Stitch Settings window closes.

- 20** Click the Stitch Pano button.



It will take a few minutes for the Panorama Stitcher to create the panorama. The amount of time is determined by the number and resolution of the image, the processing power of your computer, and the type of compression being used.

When the stitching process is complete, a playback window appears.

- 21** Drag in the panorama image window to view the panorama image. You can click the Zoom Out button (the minus sign) and the Zoom In button (the plus sign) in the lower-left corner of the playback window to zoom in and out of the image.
- 22** You can now adjust the playback settings of the panorama image you have created. The playback setting will determine how the panorama looks when it is first opened.
- 23** Close the playback window, then close the Panorama Stitcher window. If you have not saved your panorama, you will be prompted to do so.
- 24** Choose Quit from the File menu.

The stitched panorama you created has been saved in the location you specified and is ready to be viewed in QuickTime Player or incorporated into a multimedia project.