

Creating a QuickTime VR Panorama

1. Launch the QTVR Authoring Studio.
2. Create a new Panorama Stitcher (File→New→Panorama Stitcher). Give it an appropriate name, such as "mypano". A new Stitcher window will open. This will allow us to generate a panorama image from individual photographs.
3. Confirm that each of the checkboxes in the "Output Files" area are selected. The default names of these intermediate files are usually fine. The one you will care about most is the last one, the one which ends with ".pano". This is the finished panorama movie.
4. Select an appropriate lens using the drop-down menu under the "Source Images" area. For this exercise, we'll be using "50mm Portrait".
5. Confirm that the "Images Wrapped" checkbox is selected – this means that the individual photos combine to create a complete 360-degree image. (QTVR works with a non-360 image as well.)
6. Import the photos by clicking on the "Add Images..." button. When the Open dialog comes up, navigate to the "photos" folder, then select "Add All" and "Done".
7. When the images have finished importing, you'll notice a faint highlight around them all, indicating that they are selected. Don't de-select them! Next, you'll see that they are all rotated to the left. To correct this so that they are vertical, click on the clockwise arrow next to "Rotate".
8. You can now see that the images appear to proceed in space from left to right – this is correct. If they were in the wrong order, you'd click on the "CBA" button to reverse the sequence. Naming the source images correctly, with ascending numbers, will help ensure a proper order at the time of import.
9. We'll keep the default setting of 20 degree overlap between images. If we used a different amount of overlap, we could edit the Lens setting to an appropriate value.
10. Now we're ready to stitch – click the "Stitch Pano" button at the upper right. Watch as the images are stitched – despite the remarkable logic that the program uses, you'll see that some image pairs don't align correctly. The Authoring Studio will fill in the edges, "deskew", crop and sharpen the finished image. As a final step, it will resize the image so its proportions work with QTVR requirements that the dimensions are divisible by 4.
11. Once the panorama image (PICT) is created, it will be cut ("diced") into tiles that will be used to assemble the special QTVR format file that is the panoramic movie. When this step completes, the pano will open for your viewing.

12. As you navigate the finished pano, you'll see where the misalignments occur. Take note of them. To correct this, click on the triangle between the image pairs that are misaligned. For example, the first two images need to be adjusted. Click on the triangle between them, and a new window opens. Ignore the numeric fields at the top and simply drag the right hand image over the left until the alignment is as good as you can make it. You can use the arrow keys for fine adjustments. Toggling the "Transparency" checkbox on and off can also help. Notice that the alignment will not match exactly due to refractor error in the lens when the photos were taken. The Authoring Studio will use a lot of tricks (blurring, blending) to make as seamless a connection as possible between images. Once you're satisfied with the alignment, click "OK" and proceed to the next mis-aligned pair.
13. After adjusting the pair alignment, click "Stitch Pano" again. Watch as it works – hopefully, the alignment will be much better this time around.
14. When the finished pano opens, you can set the starting position and zoom factor, as well as the window size by dragging the pano, using Shift and Ctrl to zoom in and out, and typing new values for the height and width. Click the "Set Playback Settings" button when you're happy with things. When it asks if you want to rebuild the pano, click "Yes" if you're ready to make the new settings final.
15. That's it! You've just built your first QTVR panorama. Congratulations! As a last step, save the panorama stitcher work file (command-S).



Finished PICT file created by the Panorama Stitcher of the QTVR Authoring Studio