

Panoramic Possibilities

by Photographer Raymond Klass



Years ago when I was in school for photography, I experimented with some of the then latest digital techniques to do panoramas by stitching together multiple images. Unfortunately this involved a special "Quicktime VR" mounting for your camera atop your regular tripod head, and then it took special software to process these files into something you then had to Photoshop®. While this did produce interesting images, I quickly decided that this was too cumbersome a technique for me, and I left panoramas aside for a while.

This fall, while teaching with fellow photographers Nancy Rotenberg and Jeremy Woodhouse, Jeremy's enthusiasm for Photoshop®'s new panorama tool motivated me to give it another try. I knew if this was going to work for me, the technique would have to be simple. I didn't want to spend a lot of time on the computer, or carry anything extra. I'd like to share the technique that worked for me, although it is by no means the only way to panoramas. I'd also like to thank Jeremy as he motivated me try a newly renovated tool which I think will work well for those special occasions in the future.

The method for panoramas begins with the shooting of the images. I use a tripod for all my images, but it is not strictly required for this technique. It is only a necessity if the exposure times for the images are longer than you can reliably hand-hold.

Step 1. After finding a scene that I am going to photograph, I find my composition by watching through the viewfinder and "panning" left and right. This gives me a good idea of the final image.

Step 2. I have my camera set to manual exposure mode. I then find the exposure of a “typical” shot in the panorama. Basically I look for an area that is about average between the lighter and darker areas. I then shoot a single frame, checking the exposure via the histogram on the back of the camera. When I’m satisfied, I simply leave the camera at this exposure, on manual mode.

Step 3. You will be shooting the panorama as a series of images that Photoshop® automatically combines. I shoot verticals because there tends to be less distortion, and there is an advantage in resolution.

Before I begin shooting the images, I hold my hand in front of the lens, and simply fire off one image. This produces a black slide, so I know where I started my panorama. I also do the same when I am finished with the panorama, so I know where it ends. This makes editing much easier.

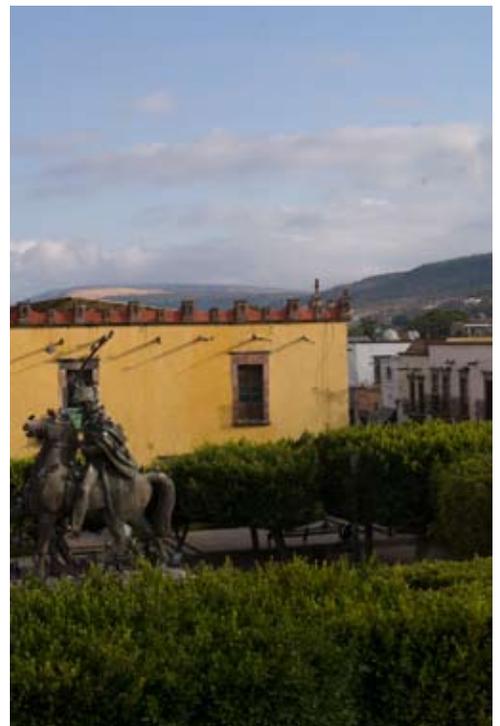
When shooting the images, I start either at the left or the right, and shoot the images overlapping at least 1/2 of the frame. Try to keep the horizon fairly level, and in the same place in the frame. I typically shoot a little wider than the intended image, as you may have to crop some of the image out later. It doesn’t hurt to have a little insurance, especially if a critical detail is on the top or bottom of your composition.

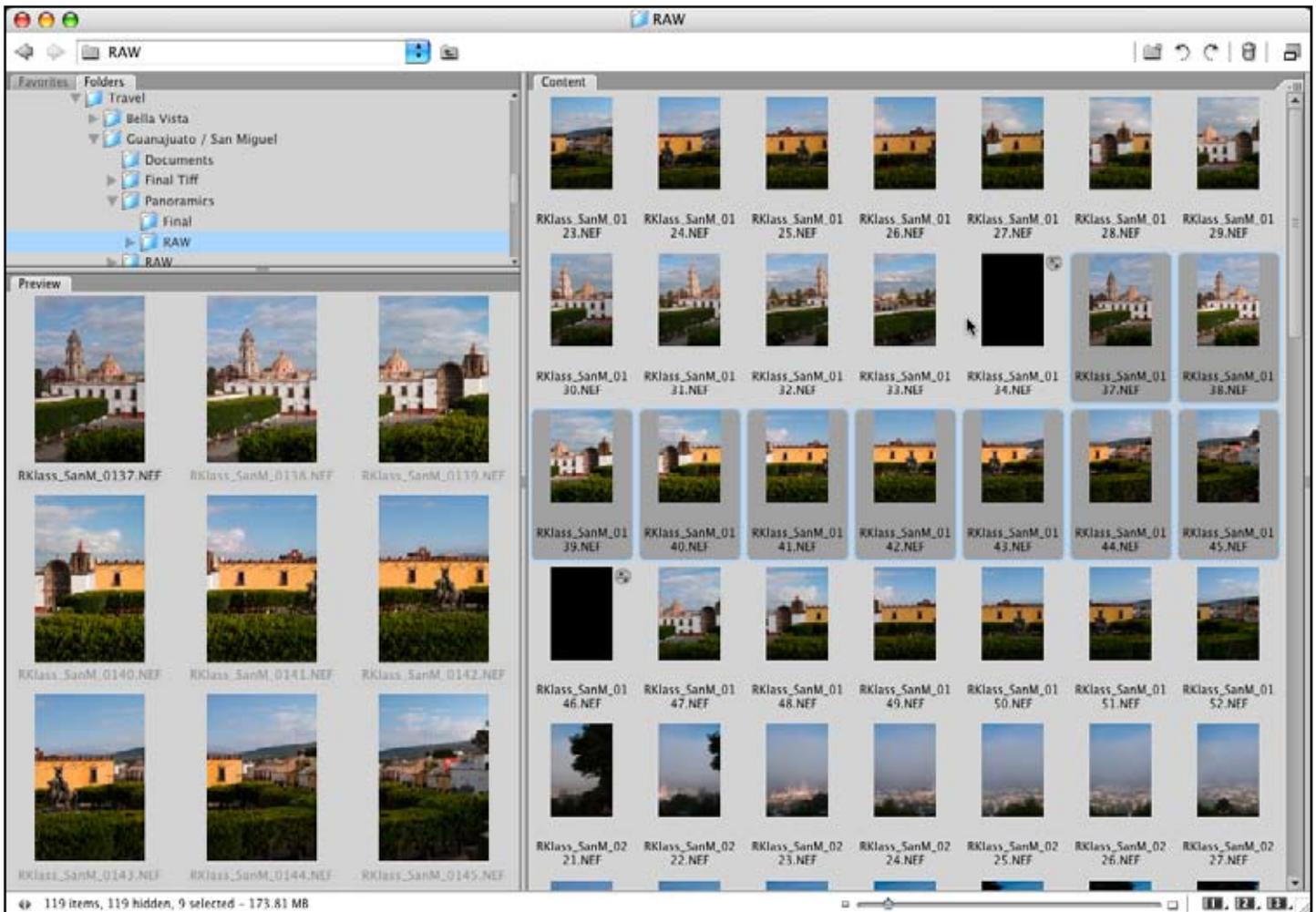
As you can see from the images, there is plenty of overlap. Generally too much is just enough, as Photoshop® automatically calculates what is overlap and stitches your images together according.

If you have a tripod with a rotating head, that works well, but if like me you don’t, that is also fine. There is no need to have any extra equipment, not even a bubble level.

Step 4. With the images shot, and your black frames before and after the panorama, it is time to download the images.

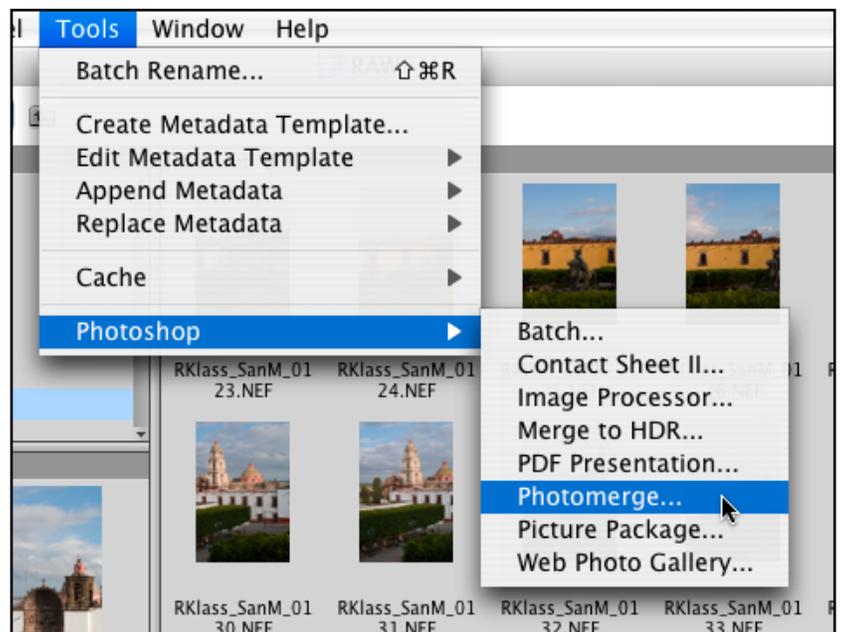
I am using Photoshop® CS3, but this same method will work in CS2.

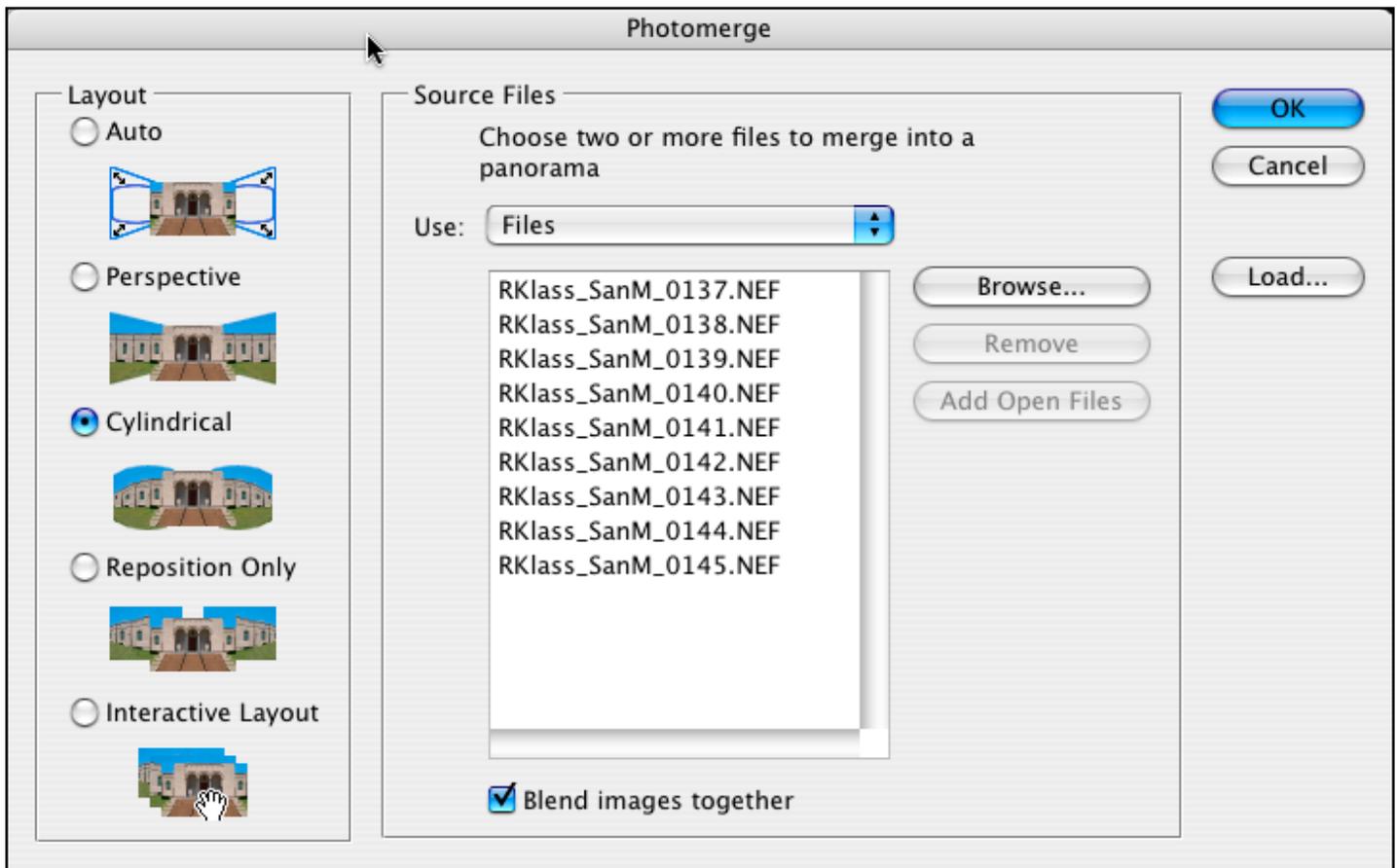




Step 5. I navigate in Bridge to the folder with my images to stitch into a panorama. I click on the first image, hold down the **Shift** key, and then click on the last image. This should select all the images. 9 of them for this panorama.

Step 6. Click on the **Tools** menu, then select **Photoshop** and finally the **Photomerge** feature. This will open Photoshop® if you had not done so already, and it will bring up the Photomerge tool that is Adobe's way of automatically stitching the images together.



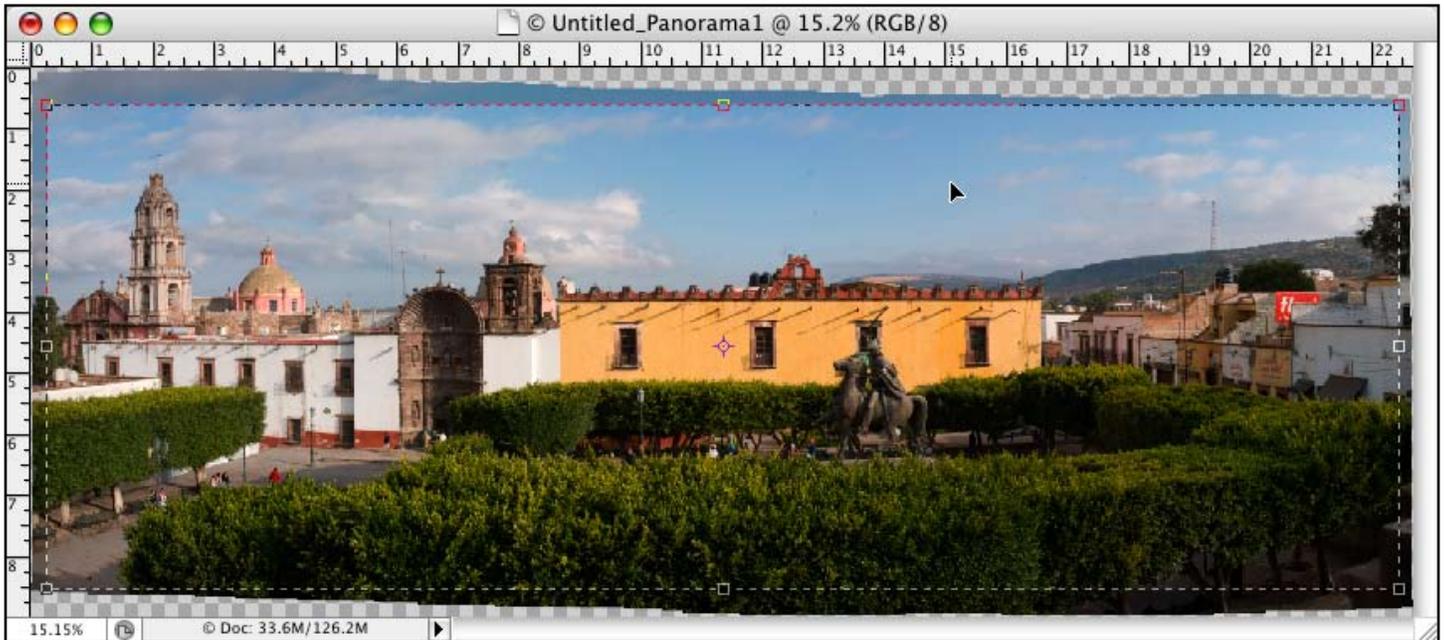


Step 7. The files that you selected in Bridge automatically appear in the middle window, these are the images Photoshop® will use to create the composite panorama. On the left side, there are several options. These tell Photoshop how you would like it to create the panorama. I usually choose **Cylindrical**, which compensates for the distortion as you panned through the images more than **Perspective** does. **Auto** is not a bad option here, and sometimes I try both **Auto** and **Cylindrical** to see which I like better. **Auto** allows Photoshop to choose whichever method (**Perspective** or **Cylindrical**) it thinks will do better.

There is also an option for **Interactive**, and while Photoshop® says this may produce a better panorama, I find the time is not worth it, and the result is not better.

Whichever you choose, make sure the option to **Blend Images Together** is checked. This option allows the color to be adjusted so the images blend together.

Click the **OK** button, and sit back as Photoshop® does its magic. It may take 10-20 minutes depending on the resolution of your camera and the number of images you have chosen.



Step 8. When the panorama is finished stitching itself together, you should end up with a file similar to the one above. Photoshop® has determined where the images blend, and has aligned and blended the individual images together to form this composite. You can see that I didn't hold my camera perfectly level on the horizon, as the images sort of slant, but this is not a problem, I use the crop tool to crop out the desired area.

You are done. You now have an image you can save, print, or work on with any of the other Photoshop® tools you already use, like levels, curves etc. One suggestion would be to flatten the image by clicking the **Layer** menu and choosing **Flatten Image**. This will save space as these files can be quite large, and flattening them makes it easier to apply filters like the **Unsharp Mask**, or use dust correction tools.



If you have a printer that will accept roll paper, you might try printing one of these out on a roll, as 8.5" X 11" paper just doesn't give the same impression. The image above is from a popular overlook on the city of Guanajuato, Mexico. The print is 80 inches long, or just over 6.5 feet. Since it was captured on 14 individual frames, you can see incredible details like people on their rooftops, and even crosses high on that mountain in the background.