Photography Tips for Better Photomerge Results (Panoramics)

Photoshop features a powerful stitching tool to create panoramas from a series of photographs. In this Photoshop tutorial, you will learn how to use the Photomerge tool in Photoshop CS5 to stitch a series of photos into a panorama.

First, let's go over some tips for when shooting these types of photos:

1. Hopefully, you're using an SLR camera with an adjustable shutter speed and aperture. Don't let the shutter speed and aperture change between shots; this would cause the resulting merged photo to not match up. Some parts of the resulting photo would have more exposure with a wider aperture and slower shutter speed. The depth of field would also differ with different aperture settings. So use manual mode, and remember what settings the shutter speed and aperture are set to and keep them the same for each shot.

2. Once you focus on the first photo, turn the lens to manual focus. This way, you control the focus of each shot, which should be the same for all of them.

3. Shoot the shots with the SLR camera held vertically, so more is covered at the top and bottom of the shot.

4. Be sure to overlap each shot about a quarter of the previous shot, so they overlap. You should avoid any blank areas in between obviously.

5. USE A TRIPOD.

Take pictures for Photomerge (from CS5 User Guide)

Your source photographs play a large role in panoramic compositions. To avoid problems, follow these guidelines when taking pictures for use with Photomerge:

Overlap images sufficiently Images should overlap by approximately 40%. If the overlap is less, Photomerge may not be able to automatically assemble the panorama. However, keep in mind that the images shouldn't overlap too much. If images overlap by 70% or more, Photomerge may not be able to blend the images. Try to keep the individual photos at least somewhat distinct from each other.

Use one focal length If you use a zoom lens, don't change the focal length (zoom in or out) while taking your pictures.

Keep the camera level Although Photomerge can process slight rotations between pictures, a tilt of more than a few degrees can result in errors when the panorama is assembled. Using a tripod with a rotating head helps maintain camera alignment and

viewpoint.

Stay in the same position Try not to change your position as you take a series of photographs, so that the pictures are from the same viewpoint. Using the optical viewfinder with the camera held close to the eye helps keep the viewpoint consistent. Or try using a tripod to keep the camera in the same place.

Avoid using distortion lenses Distortion lenses can interfere with Photomerge. However, the Auto option adjusts for images taken with fish-eye lenses.

Maintain the same exposure Avoid using the flash in some pictures and not in others. The blending features in Photomerge helps smooth out different exposures, but extreme differences make alignment difficult. Some digital cameras change exposure settings automatically as you take pictures, so you may need to check your camera settings to be sure that all the images have the same exposure.

Photomerge Photoshop Tutorial

Step 1: Go to File>Automate>Photomerge.

Step 2:
A dialog will open that lists a few different options. “Auto” tells Photoshop to choose the best setting and apply it. It has less flexibility, but is quick and to the point. “Perspective” sets the image in a perspective that includes less barrel distortion, while “Cylindrical” has more barrel distortion. “Reposition Only” simply does that—repositions the images but doesn’t change the perspective. “Interactive Layout” allows a few more options, so let’s choose “Auto”.

Step 3:
Select any of the following options: **Blend Images Together** Finds the optimal borders between the images and create seams based on those borders, and to color match the images. With Blend Images Together turned off, a simple rectangular blend is performed. This may be preferable if you intend to retouch the blending masks by hand.

Vignette Removal Removes and performs exposure compensation in images that have darkened edges caused by lens flaws or improper lens shading.

Geometric Distortion Correction Compensates for barrel, pincushion, or fisheye distortion.

Step 4:
Click Ok.
Notice how each layer is a partially-masked photo. Photoshop creates one multi-layer image from the source images, adding layer masks as needed to create optimal blending where the images overlap. You can edit the layer masks or add adjustment layers to further fine tune the different areas of the panorama.

Step 5:
Select the crop tool and crop out the empty pixels.

Step 6:
Clone or paint out any remaining transparent pixels in empty areas.

Step 7:
Adjust color, contrast and brightness as desired.

Step 8:
Set print size for final output based on paper size, set resolution to 360 dpi.