

# Nine Tips For Panoramas

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PHOTOGRAPHING PANORAMAS HAS BEEN a popular pastime since the beginning of photography. Photographers seem to love the challenge of trying to capture scenes wider than possible with normal camera lenses. They thrive on seeing just how much they can cram into one print.

There are basically two methods for shooting panoramas using a film

camera. The first involves exposing overlapping panorama parts, printing each separately, and then carefully mounting the segments adjacent to one another. The second approach requires a special panoramic film camera that exposes the entire wide image on one negative that can then be printed on a large sheet of paper. This large negative can also be printed in sections

and pieced together for an expansive final presentation. We love photographing panoramas and have been photographing pan parts ever since we started in photography. We must say that we find the new digital method much easier to use. In order for you to give panoramic photography a try, we have assembled a few tips and techniques to help you get started in the panoramic world.





# Digital



Text and photography  
by Jack and Sue Drafa



## TIP 1: Photograph Overlapping Images

In order for the stitching software to achieve an accurate and smooth transition between panorama parts, you should have an image overlap of 25-40 percent. The more overlap you have, the more accurate the

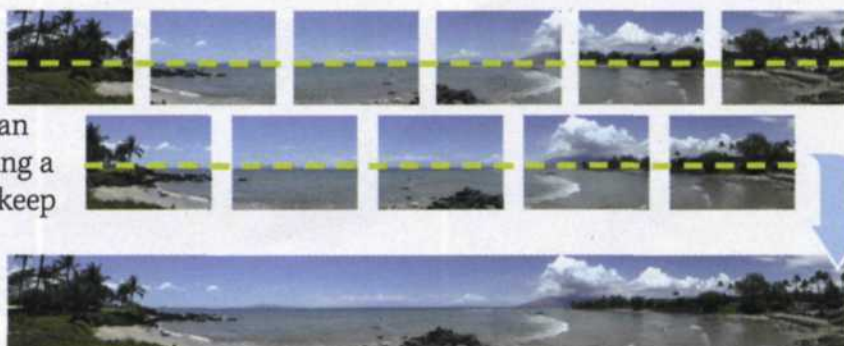
stitching. Some digital cameras have a panorama menu that displays lines to help you overlap image sections. If your camera has a compositional  $\frac{1}{3}$  grid, turn it on and use that. Just locate a specific point in

one photo and then move it to the next photo and you will have a  $\frac{1}{3}$  overlap. If your scene lacks detail as with the sky and beach, then you should lean toward a 40 percent overlap to ensure the best stitching.

## TIP 2: Keep The Horizon Level

In order to achieve a smooth panorama transition you must keep the horizon level. Although the idea of using a tripod sounds good, you may become frustrated trying to keep the tripod level. A bubble level helps, but in most cases hand holding your camera will do the job. Most

panoramic software programs have a registration function that will help align the pan parts. If you plan on making a 360° panorama, you must keep the center focus grid on the horizon, even if you cut off parts of the subjects in the scene.



## TIP 3: Use Manual Exposure

To achieve the smoothest transition from one pan part to the next you should use manual exposure. Be sure to use the same setting for the entire group of exposures. To determine the best exposure, take several trial shots trying to correctly expose the brightest part of the scene. Then use those settings for the rest of the images, even if some are darker

than you might like. If some of the images are too dark to be fixed later, you may have to slightly overexpose the brightest portion as a compromise.

## IT'S EASIER WITH DIGITAL!

The digital world has simplified the task of creating panoramas as there are digital cameras that automatically expose overlapping digital files and software that can stitch pan pieces into one seamless panoramic image.





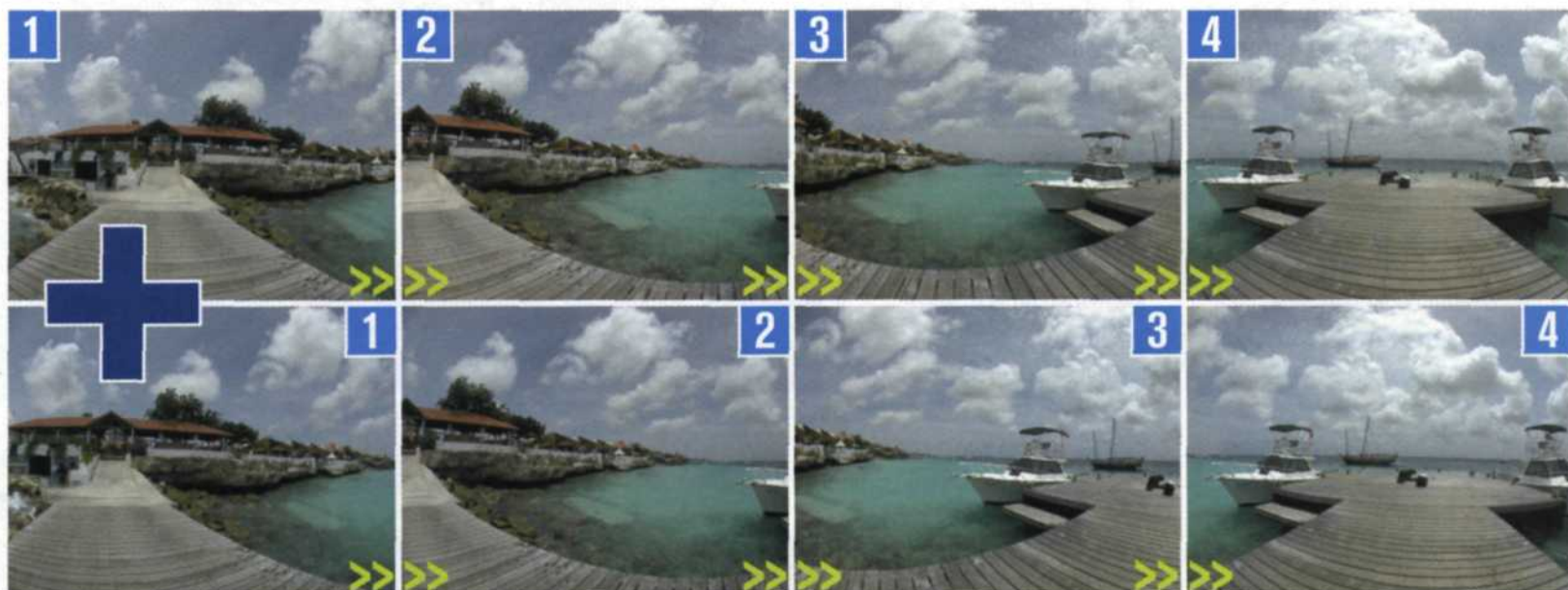


## TIP 4: Use Wide Angle Lenses

When digital panoramas were first taken, the use of extremely wide angle lenses caused misalignment. Today the software is very sophisticated and can handle lenses up to fisheye and create outstanding panorama blends. The wider the lens you use, the greater the overlap necessary to ensure a smooth blend. If you use a fisheye lens and want to make a full 360° panorama,

we recommend shooting north, east, south, and west to achieve almost a 50 percent overlap of pan parts.

If your wide lens is cutting off subjects above or below, you can rotate the lens so that it is vertical. This requires almost twice as many images to create the panorama, but you will capture those parts you missed in the horizontal mode.



## Tips At A Glance

- Photograph Overlapping Images
- Keep The Horizon Level
- Use Manual Exposure
- Use Wide Angle Lenses
- Shoot The Panorama Twice
- Organize Your Panorama Parts
- What Type Of Panorama?
- Stitching Techniques
- Printing Panoramas

## TIP 5: Shoot The Panorama Twice

When you find a great subject for a panorama, make sure that you photograph the series twice. This will ensure that you have covered the scene well, and you can substitute parts from one set to the other to

ensure the best blend. Select a different starting point for the second set to ensure that you catch all the subject matter. If there is a gap in one set, you can use one frame from the other set and not have to re-shoot the

scene. If you have the time and memory card space, you might consider shooting full 360° panoramas even if parts of the scene may not be acceptable. You can always render just the parts that look the best.



## TIP 6: Organize Your Panorama Parts

Before you begin the stitching process you should sort your panorama parts into separate directories. This will make it much easier to select those images destined for one specific panorama. You can have a main directory called

“panoramas,” and sub-directories called panparts01, panparts02, panparts03, on so on. When your stitched panorama is complete, you can then name the file “panparts03stitched” and save it in the same directory.





## TIP 7: What Type Of Panorama?

If you plan on making a print for your home or office, you might want to consider a partial panorama. This is a stitched image that covers just more than a normal lens to almost a full 360° degree panorama. Keep in mind that the longer you make the panorama, the more difficult it will be to frame and display. If you find that there is unsatisfactory subject matter in the scene, crop it out. Your

panorama can be any size as there is no rule determining the proportions of panoramas. That's what makes them so exciting to photograph.

If you want to use your panorama in the virtual reality (VR) environment on your computer, you should try to make a full 360° VR panorama image. When successfully completed, you can use the mouse to twirl around in the scene as though you were

really there. Many web pages now use VR panoramas to give the

viewer a much better feel for the location. We've seen this type of image created to show the inside of houses for real estate, hotel interiors to make travel easier, and even panoramas taken from a hilltop, so that the viewer can see all the vantage points.



## STITCH IN STAGES

When the panorama is stitched together, the software program looks at all the pieces as a whole and determines the best correction. You may find that your final image has uneven blending from one part to another, so you might consider stitching the panorama in small groups and then try stitching the groups together. For example, with a group up to 10 parts you might find that the transition from 5 to 6 is uneven. Just stitch 1 and 2, 3 and 4, 5 and 6, 7 and 8, 9 and 10 together and save each combined part. Then re-stitch the new combined parts together and you should have a better blend.

## TIP 8: Stitching Techniques

When you first bring your images into a stitching program they should be the original files—even if they are off in exposure and color. There is the possibility that your editing will be different between images, so always make your corrections

to the final stitched panorama. If one image is much lighter or darker than those on either side, you can slightly adjust its exposure so that the stitching program has a better shot at getting a good blend.

Many programs require that the images all be the same size, and this is another reason for doing your editing after the stitched panorama is created. If your images are very large your panorama program may run out of memory. You may have to re-size each part using the exact percentage and save them into a new directory.



## TIP 9: Printing Panoramas

Some high-end inkjet printers feature a roll paper option so you can print wide format prints on banner paper. You will have to determine the length of the panorama in your editing program and create a custom paper size that will accommodate the full length of the panorama. ■

