

## Digital ...

*A monthly column by Harry*

This month is about panoramas and is for beginning photographers. Illustrations are [here](#). Please check them out and add your comments to the discussion thread. Send questions for future columns to [harry.iris@usa.net](mailto:harry.iris@usa.net).

How can I “stitch” images together to make a panorama?

If you haven’t already done this, it is much easier than you think, especially with beginners’ small-format cameras. Here are some tips for increasing your chances of success.

Panorama software (computer programme for “stitching” images together) may have come with your camera and this will probably work fine. I’ve used Photoshop Elements PhotoMerge with good success and it is simple to use. Check your program’s instructions on use.

Let’s start with a horizontal panorama such as the view east from our house (see the Web site above). To make this image, I stood on the deck and shot to my left (north), then turned east a little and took another shot overlapping the previous one. I repeated this until I got all the way round to the south. The camera was set on the equivalent of the landscape scene mode, otherwise I did nothing special.

If you are lucky, this is all you have to do before entering your images into your “stitching” programme. Here are some simple precautions you can take, though, that will increase your chances of success.

1. Avoid the wide angle setting on your zoom; it’s better to take more images than to use too wide an angle. Don’t change the zoom between images.
2. For a horizontal panorama, turn your camera vertical and include extra unwanted sky and foreground in each image. Unless you are using a properly leveled tripod, your pictures will waver up and down a bit and this extra space top and bottom will allow you to crop off the uneven edges after the computer has made the panorama.
3. Rotate but don’t move the camera. This may be easier if you use the optical viewfinder, if you have one.
4. Make sure each image overlaps the next. The amount of overlap is not critical; 15% to 40 % is OK but I recommend using the lower end of this range.

If you are using landscape mode on a small camera, this is probably all you need to know so skip to the end and start shooting. Check the following if you have problems with your panoramas.

5. The exposure may vary between images. Elements will correct for this while merging and if the range of dark and light is high, varying exposure might be better. Nevertheless, in some circumstances it may be better to use the same exposure for every image by using full manual exposure.

6. The depth of field may vary between images. This may happen if the camera changes the lens aperture to adjust the exposure. It is unlikely to be a problem on a small-format camera in landscape mode. In other cases, the camera should be used in aperture priority mode, so the camera changes only the exposure time and not the aperture.
7. White balance may vary between images. If this is a problem, you will see colour artifacts in the panorama. Avoid this by setting the white balance manually, if you can, the same for every image. Alternatively, you can adjust all the images to the same white balance, on the computer, before “stitching”.
8. The focus may vary between images. Again this is unlikely to be a problem with a small camera in landscape mode. With larger cameras it may be necessary to turn off the auto focus.

In spite of all these issues, you can often get excellent panoramas just picking up the camera and shooting, bearing in mind tips 1 and 2. Go ahead and try it.