



UserReport

Photographic

PowerStitch



Create Professional-Looking Panorama Images

Panorama pictures are not a new fad; they've been around for ages. Photographers have been creating panorama images with the cut-and-paste method since the beginning of photography. You know the approach: prints from various negatives were mounted together to form a single montage image. While this technique gave the a panorama effect, the edges between each print were obvious and looked rather shoddy.

Today the task is much easier thanks to computer programs that stitch multiple images together so the final result displays no hint of blended edges. PowerStitch from Enroute Imaging is a powerhouse software program that enables you to create professional-quality 2D and 360° digital panorama images. Since it stitches together grids of multiple images to render a single high-resolution panorama, it effectively turns your 35mm camera into a larger-format camera. PowerStitch not only uses images taken in a circular pattern, but can also add images above and below to create panorama images with a virtual reality effect.

In order to see just how the program works, we need to start by photographing the component images. The best method is to place your camera on a tripod—preferably one with a pan

head and bubble level. The idea is to take multiple pictures as the camera pivots around its focal point. Make sure the tripod and camera are level with the horizon. You can try hand-holding the camera, but you must keep the horizon level to avoid distortion. Vertical camera orientation minimizes distortion in the overlap areas.

Each image should have about a 25 percent overlap for best results. The wider the lens angle, the more overlap you need to compensate for lens distortion. For best results, the overlap areas should not include the key features of your scene. Avoid moving subjects such as cars, people or windblown objects in the overlap areas. Make sure the overlap areas have no straight lines or fine detail.

Since you will be making as much as a 360° rotation while exposing your images, you may encounter variations in color balance and exposure. You will probably get the best results if you disable auto exposure while making your swing. Variations in exposure from one picture to the next can produce visible seams.

PowerStitch is different from other panorama programs because it uses a 3D workspace instead of a flat screen to edit the pan parts. This works great because "What You See Is What You

Get." Coarse image alignment is performed manually, and fine-tuning is done using auto align, for maximum image control. Simply load each image in the order that you panned. Drag each image over the previous part and roughly line it up. Three icon buttons at the top of the screen allow you to layer, intersect the image edges, or blend the edges of the pan parts.

You can load a couple of images at a time and align each group, or load all the parts and align them all at once.

Thumbwheel controls along the side of the edit screen allow you to pan, roll, tilt or zoom the editing screen. If you have to stop editing before you are finished, simply name the file and save it. You can easily continue editing later because the program keeps track of all the pan parts and knows where you left off. PowerStitch has a link to your editing program, so when you make any changes, the edited image loads directly into PowerStitch.

After all the parts are aligned, you can create a small test render file. This is a low-resolution image of the final stitched panorama that allows you to quickly check everything. If all looks good, you can continue to render a full-resolution image. Files can be saved as a flat panorama for 2D viewing or printing, or as a QuickTime VR file where you pan



Eight photographs were combined to create this full 360° panorama image. To avoid variations in color balance and exposure, you'll usually achieve the best results by disabling your camera's automatic exposure system and metering manually:



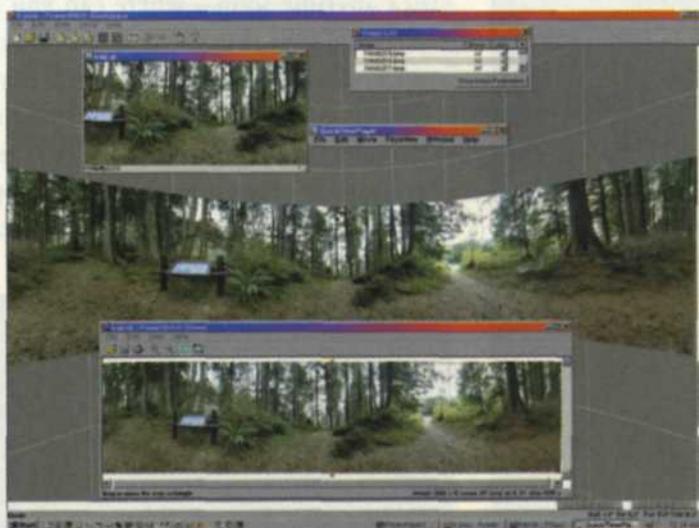
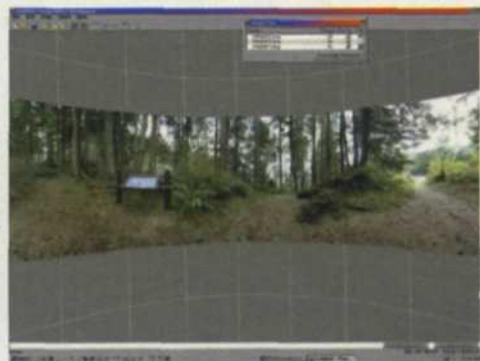
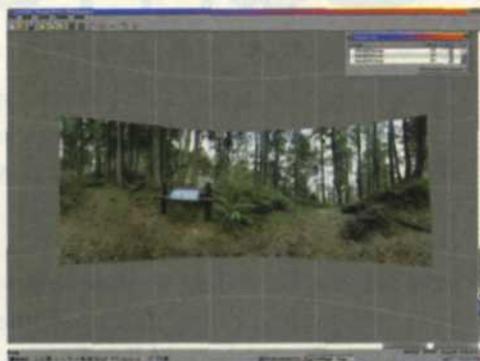
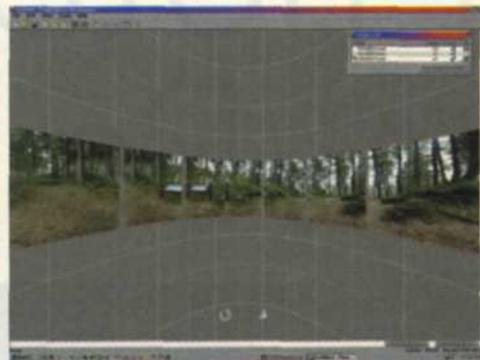
by Jack and Sue Drafaahl

throughout the image as though you were actually standing in the scene.

When digital stitching programs first appeared, we started to shoot pan parts whenever possible. While on magazine assignments around the globe, we continually added pan parts to our stock files. We knew we could stitch them together later and achieve a wider-angle, higher-resolution image.

We think of PowerStitch as a new lens in our camera bag. It takes advantage of the equipment we already use. So the next time you find yourself in a situation where no lens can capture it all, PowerStitch it, and create some incredible panorama images.

For further information contact Enroute Imaging, 800/656-5443 or log onto their Website at www.enroute.com. ■



The image below is composed of 12 individual photos; each shot in the vertical orientation with a 20mm lens. A tripod with a bubble level was used to keep the camera level with the horizon. The photos were loaded into PowerStitch and aligned before rendering the final 360° image.



ALL PHOTOS BY JACK AND SUE DRAFAHL