

# Photovista Panorama Tips and Tricks

## Tips & Tricks

### Shooting Panoramas

- Keep the camera level when shooting images.
- Panoramas that are shot with wider-angle lenses will result in larger file sizes, requiring more time to download than those shot with a narrower lens type. For example, a panorama shot with a 15mm lens will offer more vertical tilting range for the viewer than a panorama shot with a 35mm lens, but because of the wider aspect ratio of the 15mm lens, the result will be a much larger file.
- Immediately after shooting a panorama, think about areas of the panorama that may warrant zooming into. Then, zoom into those spots or switch to a telephoto lens to take close-up versions of them. You will be able to embed these close-up views into the panorama in Reality Studio later.

### Camera Exposure Issues

- Ideally, try to use one exposure setting for an entire panorama. If you must change exposure due to changing lighting conditions, keep adjustments to a minimum.
- When shooting a panorama of a sunset, try to fix the exposure evenly throughout the panorama, from the setting sun to the rising night.
- Bracket the exposure (that is, take a few shots with more and less exposure) in sections of a panorama that are more likely to be improperly exposed. For instance, the sun and reflective windows may 'fool' your camera's exposure settings, so the additional photos that you take at different settings will increase the likelihood of getting a good shot.

### Working with Images

- When saving your photos initially, use a non-lossy format like TIFF to preserve image quality. To keep file sizes small for stitching your panorama, use JPEG.
- Save your original images at their highest resolutions, then decrease the pixel resolution to create panoramas with lower file sizes and more file compression to make them bandwidth efficient (100k or less).
- All images must be of the same pixel size both vertically and horizontally when importing them into Photovista.

#### Flashpix Issues

- Flashpix panoramas are more interesting the higher their resolution levels, and when there are details that warrant zooming into. Examples of 'zoomable content' might include distant objects, people, or textures that improve in detail by zooming into them.
- Embedded Flashpix images in panoramas work better when framed by something (door frame, TV set, or picture frame) because of the noticeable aliasing issues of some Flashpix images. Additionally, try to make sure that the surrounding panorama does not pixelate before the Flashpix image fills the viewer window. With proper planning, you may be able to drill down with your zoom until the floating point accuracy of your computer can no longer handle what's taking place. This is a rare but rather interesting visual experience.
- Flashpix panoramas can be made from many sources. The requirements on your computer increase in magnitude with the size of the source files. For example, stitching twelve 50MB files will take hours to render and more than a gigabyte of scratch disk space. It's best to render such projects at the end of the day when your computer is not required for other tasks.

## Special Issues

To shoot a completely spherical image:

1. Use a 14mm - 16mm fisheye lens to shoot the panorama, plus a single shot of the sky, and a single shot of the ground.
2. In Photovista generate the initial panorama without the sky and ground shots.
3. Import the panorama back into Photovista and choose spherical mapping with a 180° view.

4. Tilt the panorama straight up to see the sky, then export that view. Next, tilt down to the ground and export that view with a different name. Each time you export a view, two files are generated; a 'filename.bmp' and a 'filename.pve.'

5. Take the 'filename.bmp' into a photo editing application and composite the appropriate sky or ground shot into the white circular region of the BMP file. Save the file to its original location. The BMP file is embedded into the .pve file.

6. Re-import the modified .pve file, which instructs Photovista how to warp, merge, and position the originally exported image with the original panorama.

- When photographing windows outdoors (without the aid of neutral density gels to cover the window directly) bracket a second pass of shots for the exterior including additional shots that extend beyond both sides of the window. Then stitch both sets of panoramas and composite the two panoramas in an image editing application allowing the best-exposed regions to be seen while masking the poorly exposed regions.

- The need for accurate, level panning increases when wide angle and fisheye lens' are used, since there is a greater challenge in blending and correcting for distortion with these lens types.