What is Panorama photography?

A panorama is a photograph that is much wider than tall (or taller than wide) – presenting an image that looks like a wide landscape view, or a tall narrow one. A true panorama captures a very wide view. Some special film cameras are designed to do this – panorama cameras – but they are rare and expensive. More often, film cameras achieve the effect of a panorama by cropping the top and bottom of a photo making it appear wide. The same effect can be achieved in a dark room – provided the original photo was framed correctly. However, neither of these later methods can achieve a truly wide panorama – it is simply clever framing.

With the advent of digital photography, the ability to create a true panoramic photograph by stitching multiple images together has become a reality. Using a digital camera, photographers can take several photographs in sequence and stitch them together using special software to create a photograph with a much wider (or taller) aspect ratio.

But, actually doing this is often much harder than it should be. Photographers using most cameras have to carefully align the photos, maintain consistent focus, zoom and exposure and then run computer software to stitch them.

Some cameras assist the photographer with ‘guidelines’ but even in these cameras it is hard to properly capture the component photos and you don’t know if it worked until you actually stitch the photos.
HP’s Panorama with In-Camera Preview makes panorama photography easy and reliable

Introduced in HP’s Photosmart R707 digital camera and now available in several HP Photosmart Digital Cameras, HP’s In-Camera Panorama Preview makes taking true panorama photos easy and reliable by providing:

- **Image based guidance for aligning images.** Not a simple ‘guideline’ – HP’s guidance routines superimpose features from the previous photo on the camera display to assist the photographer in precisely aligning the next panorama shot. You can see the previous photo – so you can control the next one! This also assures sufficient overlap.

- **Managed exposure, focus, and zoom.** In panorama, the camera makes sure each photo in a panorama series is consistent in color, exposure, zoom, etc. The images are also marked and coordinated as panorama components.

- **In-camera preview of the panorama.** After taking the sequence of 2-5 photos, the photographer can have the camera run in-camera stitching routines to create a preview of the panorama. This preview allows the photographer to verify that the component images were captured correctly. While this preview is not the final image, it provides the confidence that the panorama will work.

- **Automated stitching using HP Instant Share™ technology.** Thanks to HP’s Instant Share technology, when the photos are transferred from the HP digital camera to a computer running HP Image Zone software (included with the camera), the panorama photos are identified as such automatically stitched to create the final image.

- **Automated vertical “panoramas.”** Finally, if the photos were taken with the HP Photosmart digital camera which have an in-camera orientation sensor and with the camera held in portrait format (turned ¼ turn) – the “panorama” becomes a vertical one – allowing a photo of a tall narrow scene automatically.

With HP Panorama with In-Camera Preview – true panorama photography becomes easy and reliable.

**Do other cameras do anything like this?**

Using external software, you can create a panorama from any series of photos – but it is quite difficult to appropriately capture the component images. Some cameras provide panorama s that show “guidelines” or other features to assist the photographer, but HP’s alignment method helps the photographer maintain framing, rotation and overlap for a successful panorama. Only HP provides in-camera preview of the stitched panorama and only HP has Instant Share technology to automate the process.

**How do I create a panorama?**

**Taking the photos**

- Switch the camera to panorama
• Take the first photo. Note: in some HP cameras, the panorama is always left to right – in others, you can choose left to right or right to left.
  o If you are taking a vertical photo – turn the camera 90 degrees left and go bottom to top.
• The LCD will display the first photo and the overlay image to help you align the image (if live preview is off, it will turn on after the 1st photo).
• Align the camera for the next image using the overlay from the previous image – and take a photo.
  o Continue this for up to 5 photographs
• When you have taken the last photo in your sequence, press “OK”

Previewing the panorama.

• After you take the last photo in the sequence, you will see the photos displayed in instant review. You can choose to delete the sequence at this point.
• If you switch to review mode, you can scroll back and forth to see each photo in the panorama sequence. This is not the preview!
• To see the preview, while viewing one of the panorama sequence photos, press “OK” and scroll down to the “Preview Panorama” item.
• Press “OK”

The panorama preview image is created and displayed. You can now scroll back and forth, seamlessly, to see how your panorama will look.

Completing the panorama

• Connect your camera to a computer with HP Image Zone loaded.
• The HP Instant Share technology will identify any panorama sequences in the camera, and when transfer is complete, will automatically launch the stitching software with the images appropriately sequenced to complete your panoramas.
Things that can impact a panorama.

- If you take a panorama, the perspective of items can change. The closer something is to the camera during a panorama, the more perspective will likely change.
- If you do not have HP Image Zone loaded, the panorama will not be automatically completed.
- If you have moving items in a panorama sequence, they may appear more than once! This can be fun if you understand it – you can have the same person appear in different parts of the panorama.
- If you start in a very dark, or very light, area and the panorama extends to an area that is opposite in terms of lightness – you may see highlights clipped or shadows darkened. The camera will manage a large amount of dynamic range (bright to dark or vise versa), but there is a limit what can be done in one image.