Panorama Photography

Greenville Photography Meetup

August 20, 2015

Panorama Photography

- What I plan to cover
  - Basic Pano's
  - Intermediate Pano's
  - Advanced Pano's
  - Demonstration on Stitching or Merging photos into a Pano

Panorama Photography

- Panoramic or wide format photography allows a user to take a series of (more than one) of photos using the same camera at one location and then merging or stitching them together to form a single photograph.

Panorama Photography

- The location can be as large as a mountain range or as small as a room.
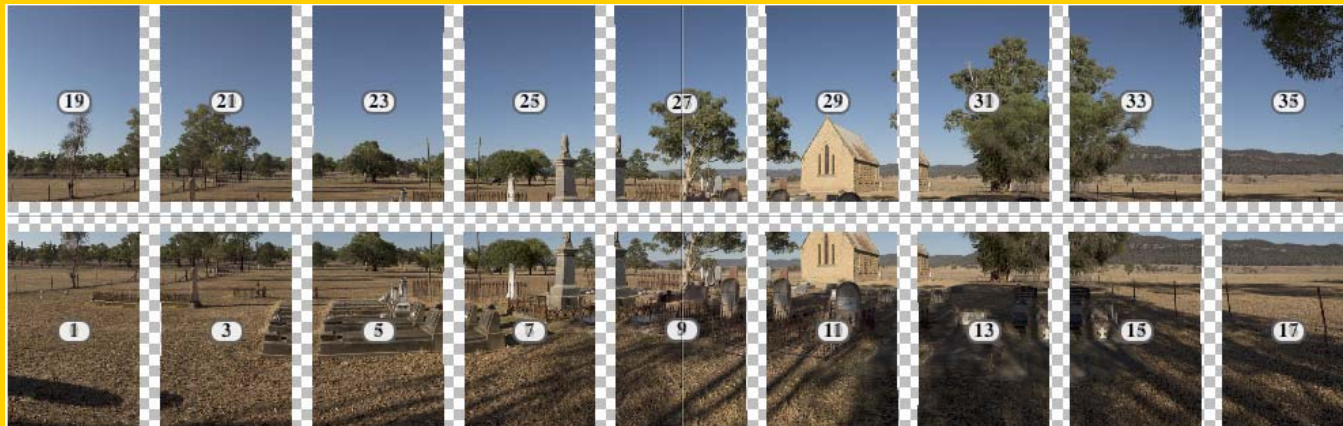
Panorama Photography

- There are several types of Pano's
  - 180 degrees
  - 360 degrees
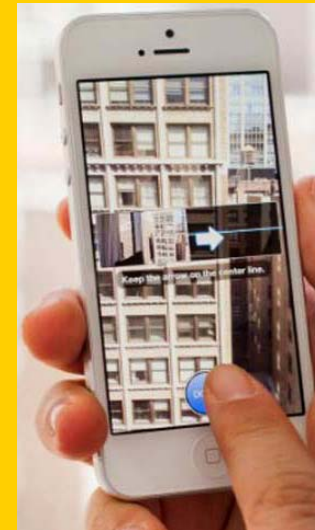
Panorama Photography

- All Pano's can be shot in single or multiple rows, vertically or horizontally.

Panorama Photography

- Pano's can be taken with any type of camera.

    - The most common way is with Cell Phone

    - In fact some cell phones will even stitch the photos together to create a Pano

    - Some Point & Shoot cameras have a Pano feature built in

    - However, this is not true for dSLR's cameras

Panorama Photography

- **How to take a simple Landscape Panorama**
  - First, do not forget about your basic composition and lighting rules.
  - Think about the Golden Hours
    - Sunrise and Sunset

Panorama Photography

1. Decide on a Location

   - Jocassee – from the Bad Creek overlook (above)

Panorama Photography

2. Decide on a Start and Finish Points

Panorama Photography

3. Decide on whether to shoot Vertical or Horizontal

(consider both)

Panorama Photography

3. Then start taking your photos

 - Overlapping each photo by about 1/3
 - This is a series of 13 photos

Etc.

Panorama Photography

4. Before I start and at the end of a Pano or HDR

Panorama Photography

■ **Technical Aspects of taking a Pano correctly**

1. Remove any filters (Polarizer) from your lens
2. Set your camera on Aperture Priority or Manual
3. Set your focusing to Manual
4. Set your ISO speed to the lowest possible setting
5. Use a Tripod
6. Try to avoid anything moving in your photo
   1. Wind blown branches, clouds moving, shadows, waves, etc

Panorama Photography

- **Technical Aspects of taking a Pano correctly**
- Tripod
    - Be sure that the Tripod legs are level
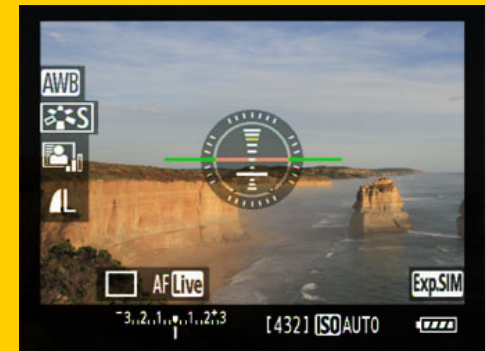   - Many tripods come with a level

Panorama Photography

- **Technical Aspects of taking a Pano correctly**

- Camera

  - Be sure that your camera is level on the tripod

  - Some cameras come with a built in level system

  - Or use a bubble level

Panorama Photography

- **Technical Aspects of taking a Pano correctly**
- Camera
  - When taking your Pano rotate your camera slowly left to right on the tripod
  - Remember to overlap at least a 1/3
  - Re-focus on each shot

Panorama Photography

- **Technical Aspects of taking a Pano correctly**

- Camera
    - Keep your camera at eye level all the away across the scene
    - Otherwise you will create what is known as a **parallax**
        - This is where Near and/or Far objects don't align in overlapping images.
        - This is especially noticeable in movement
        - Move on this later
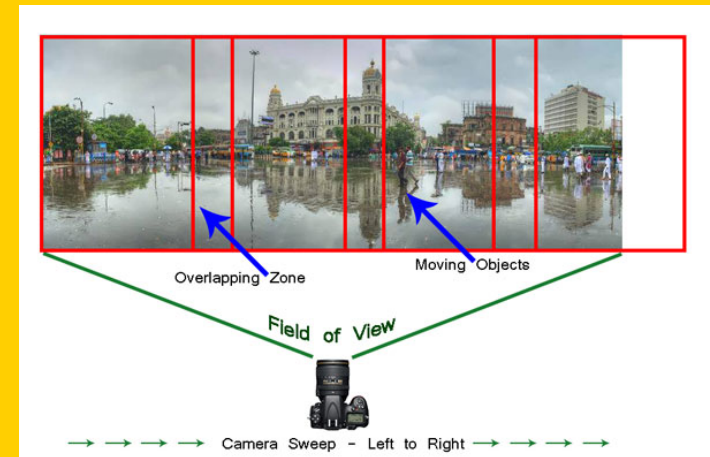
Panorama Photography

- **Technical Aspects of taking a Pano correctly**
- Hand holding your Camera
    - Standard procedures
        - Use the View Finder and not the LCD
        - Hold your camera as close as possible to your eye
        - Keep your elbows in
        - Legs and feet wide apart

Panorama Photography

- **Technical Aspects of taking a Pano correctly**

- Hand holding your Camera
  - Panning procedures
    - Pan your camera from Left to Right
    - Try to keep the camera aligned against the horizon
    - Move only the upper part of your body
      Think of your legs as a Tripod
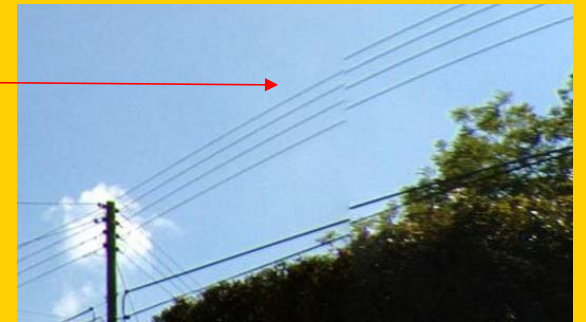   - Use a Fast Shutter Speed (1/250 or higher)

Panorama Photography

- **Technical Aspects of taking a Pano correctly**
- Lens
  - You can use any type of lens to take Pano's
  - It is recommended that you stay away from zooming down below 25mm
    - Using a lens less than 25mm may cause some distortion
    - Your Stitching software may not be able to correct it

Panorama Photography

- Intermediate Panorama Photography
  - Everything I covered in Basic applies to this Intermediate section
  - I plan to just cover one area - Parallax

Panorama Photography

- **Intermediate Panorama Photography**
  - **Parallax** refers to the shift in the apparent position of an object in relation to its background when viewed from a different lines of sight.

Panorama Photography

- **Intermediate Panorama Photography**
  - Basically it is when near and/or far objects don't align in overlapping images

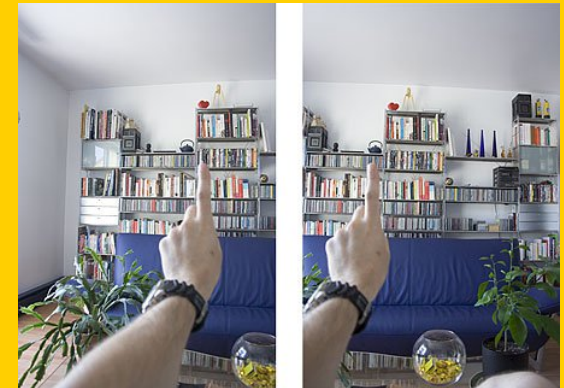 - Example when shooting a fence line, each fencepost in Image one, should line up with its twin in Image 2

Panorama Photography

- ## Intermediate Panorama Photography
    - A practical example is to hold up a finger and look though it at a far object.
        - Close your eyes and see how a finger in front you moves in relations to the background when viewed from each individual eye

Panorama Photography

- Intermediate Panorama Photography
  - This is why passengers in a car sometimes think you are speeding: how they see the number on the speedometer in relation to the needle is different from the point of view of the driver

Panorama Photography

- Intermediate Panorama Photography
  - Parallax can be a major issue when attempting to stitch the shots together as each shot will be slightly different from each other

Panorama Photography

- Intermediate Panorama Photography
    - If the parallax is bad, you won't be able to align the photos
    - You may get ghosting or tracing within the final image.

Panorama Photography

- **Intermediate Panorama Photography**
  - Eliminate the effects of Parallax
    - This can be done by placing the optical center of the lens (not the camera) directly over the point of rotation on your tripod

Panorama Photography

- **Intermediate Panorama Photography**
  - You do this by using a Nodal Slide Bar
  - The cost: $60 to $200

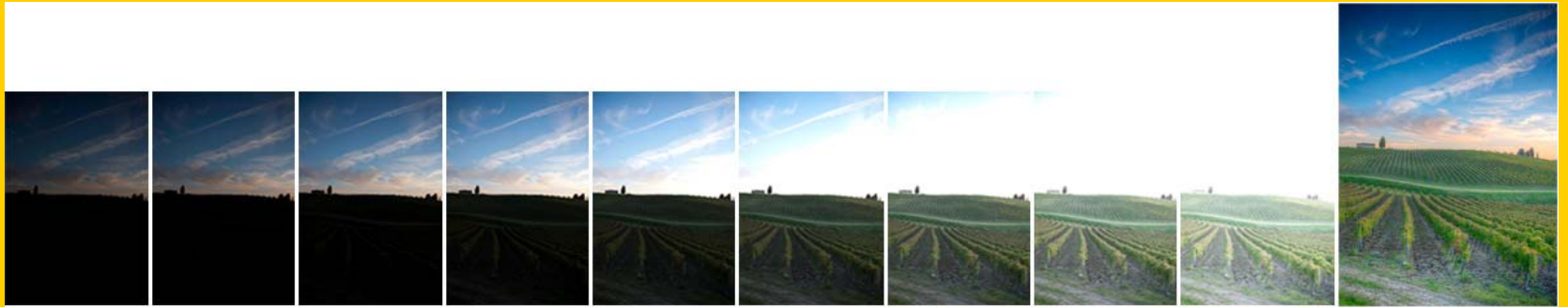# Panorama Photography

- **Advanced Panorama Photography**
  - Two Areas
    - HDR
    - Multi-Row

Panorama Photography

- **Advanced Panorama Photography**
  - HDR
    - Take each individual frame and shoot it in HDR

Panorama Photography

- Advanced Panorama Photography

Panorama Photography

- Advanced Panorama Photography
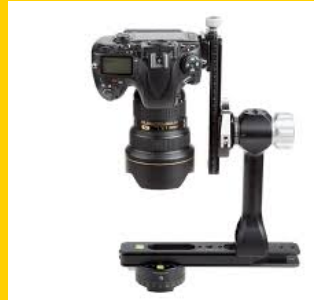
Panorama Photography

- **Advanced Panorama Photography**
  - Multi-Row
    - You shoot multi rows (two or more) for the Pano

Panorama Photography

- **Advanced Panorama Photography**
  - In order to do this, you have to use a Panorama Head on your tripod

Panorama Photography

- **Advanced Panorama Photography**
  - Cost can range from $200 to $1000
  - With this Giga Pan
    - You can shoot any type of Panorama
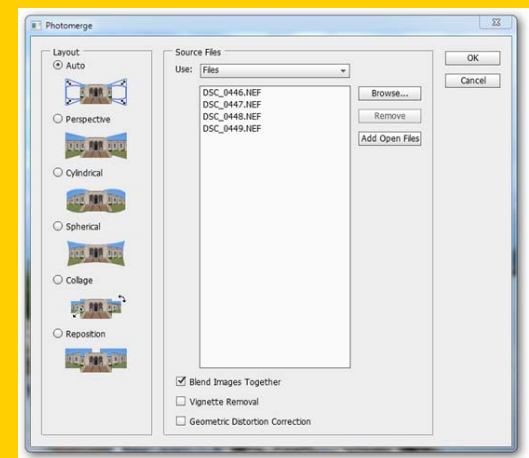   - Weights 11.5 lbs.

Panorama Photography

- **Stitching Photos together**
  - Most common is Photoshop
  - Lightroom
  - Many more available both Free and Purchase

Panorama Photography

- **In Conclusion**
  - When out and about Photographing, think about Pano's
    - Remember you need a starting and ending point
    - Shoot both Vertically and Horizontally

  - Stop by and pick up my Panorama Tip Sheet at the Back

  - Any Questions

Panorama Photography

- **Stitching or Merging the Photos together**
  - Unfortunately Picasa does not offer stitching at this time

  - Demo using Lightroom
    and MS Image Composite Editor
    (ICE)