# PROCESSING PANO IN LIGHTROOM.

Taking multiple shots is often the preferred solution to match our camera's ability closer to what we can see with our eyes versus what the camera can capture in a single exposure.  In three important general situations — and any combinations of those three — multiple shots can help us to achieve our objective with some very simple post processing in Lightroom:
     i) when we want to capture a wider panoramic view than our lens can cover;
    ii) when we want to capture good detail in the brightest as well as darkest parts of a high contrast (HDR) scene;
    iii) when we want crisp sharpness from near to far, beyond what we can get with a reasonable depth of field setting.
The simplicity, speed with which a good quality the pano and/or HDR can be created now in Lightroom, is astounding.  My demo is pano, but the processes are virtually identical for HDR.  (The third one is called Focus Stacking, and trailing just a little in its arrival to Lightroom.)  As always, higher quality may be achieved with more discipline at capture time and more work at post processing time, but the demo will show you that not much is lost, even if you are short of time or as me, short on patience at shooting time.

The process for Pano:
- Shoot multiple frames in RAW format — make sure they overlap and cover all desired areas.
- Import to Lightroom.
- Select all shots taken for a single panorama
- Choose from the menu in Lightroom (either in the Library or the Develop module )
        Photo > Merge > Panorama. (HDR is the other alternative.)
- Wait… typically just a few seconds, to see a Preview displayed
- Adjust parameters if necessary, for another Preview, or if satisfied proceed to:
-  Click Merge, to see your finished Panorama is displayed after just a bit longer wait.
The result will be displayed in the strip,just to the right of the original sequence, but once I had to search for it and found it at the very end of the strip.

**The result is still in RAW format!!**  Thus, it can be treated  treat exactly as any new RAW original image file, as if it was just downloaded from the camera. Accordingly, the pixel count, and the file size of the of the image file will be very large, offering terrific details.  The multiple shots I used for this demo were taken in vertical position, but otherwise breaking every rule you read how to take panoramic still shots. No tripod, just leaning against a pole for stability, overlapping extensively as turning, sweeping twice horizontally (once to catch my subject, the cloud, than the second time to catch more of the water.  I ended up with very significant vertical overlaps, but mistakenly, also with a gap area in the water.  I even moved position by about 2 feet, to lean against the other side of the pole to be able to get a wider pano without the risk of falling into the water and getting my camera wet.



Doing it by the rules, would have involved:  Leveled tripod, not moved, controlling to get more even overlap, some would argue also tighter control of exposure using fixed manual settings.  Not  to mention extra equipment on the tripod  for the exact proper rotational position.  Bear in mind, however, that a stricter discipline may still be necessary for certain subjects, particularly for architectural photography.

Experiment yourself with taking multiple exposures for HDR (High Dynamic Range) situations, where the camera remains still and the exposures are varied, say taking three exposures, normal, under and overexposed.   Follow the same process, but choose from the menu in Lightroom (either in the Library or the Develop module):    Photo > Merge > HDR (where Panorama is the other alternative.)          Bob Kenedi   (iaskbob@me.com)