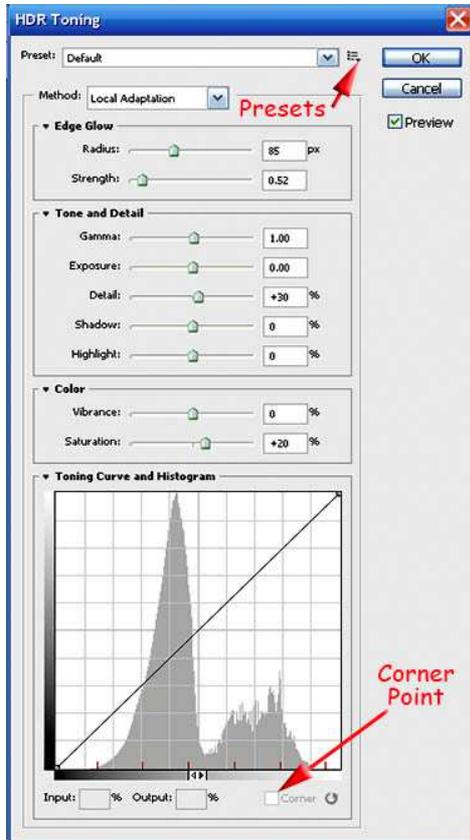# High Dynamic Range Toning (HDRT) in CS5

Anyone who uses Photoshop CS5 for HDR *must* master HDR Toning. If you submit n images at constant aperture and white balance but different shutter speeds, CS5 will create a 32 bit file called Untitled_HDR2.hdr. I always save that file so I can try more conversions later.

This 32 bit file should under go multiple transformations before it becomes web-ready.

1. Save as .hdr
2. Convert to 16 bit using HDRT.
3. Tone Map in LR3 with active Histogram; careful 200% scan.
4. Spot Heal (content Aware Fill – CAF) all blown highlights (BHL).
5. Sharpen region where you applied Spot Healing. Other regions may need help…
6. Save final tif and jpg.
7. Make jpg Keeper in Smart Collection.

Most monitors won't let you see 32 bit files in true color. Hence, CS5 created HDR Toning. HDRT is a dialog box to 'help' you estimate what that 32 bit file should look like as a 16 bit tif.

What Does HDRT Do?

HDR Toning considers 4 functions; Edge Glow, Tone and Detail, Color, and Toning Curve and Histogram. Rather than repeat dry information from your help file, I want to talk about important aspects of creating landscape HDR fine art.

Clearly, my emphasis about Presets and Corner Points provides a starting place for an HDR conversion.

Merge To HDR Pro Creates A 32 Bit File

To be able to view and work with this file, you only have 2 changes you can set:

1. White Point
2. Remove Ghosts

With these adjustments, you create a 32 bit file when you hit OK.

HDRT

When one has a dialog box open in Adobe, it is usually best to go down the items in sequence, setting sliders to your preference. Under Edge Glow, I find landscapes respond well to small values for Radius and Strength (33 and 0.33% are starter values to eliminate seemingly inevitable blown high lights).

Choosing values in Tone and Detail follows. Reduce Gamma, ignoring Exposure, setting Shadows and Highlights follow. When that is done, I then evaluate Detail.

For Color, I usually increase Vibrance while being ginger with Saturation.

Toning Curve and Histogram – this histogram is 32 bit; your active changes are not reflected in what you see *[Arrggghhh… C'mon LR3!]*.

I emphasize Corner Point because you will quickly begin to spot areas where Blown High Lights (BHL) occur. If you move the cursor over that point, a point appears on the Histogram curve. Click on that point and choose Corner Point. This choice allows you to put sharp bends in a revised tone curve. If you move the Corner Point about, you may reduce the potential for BHL. Each image will require different motion.

Once Corner Points are set, you can then modify the histogram to more nearly approximate the final 16 bit fit. Unfortunately, you can not see this action reproduced in the histogram as you do in LR3. I strongly suggest Adobe rectifies this oversight in Lightroom 4.

Presets

It may take more than one HDRT pass to get a satisfactory tif. Once you've got a 32 bit screen which is close to your memory of the image, save those settings by clicking on the little icon Presets.

A dialog comes up:
1. Save Preset
2. Load Preset

Give your image a unique preset name. I usually include the original image numbers to help later identification.

If the resulting tif has tone map problems, simply reload the .hdr file, modify the 1st Preset, save, and try again until you've got it right!

When you hit OK, you get a 16 bit file which you keep as a tif.

LR3 Global Tone Mapping

Now, you have simple tools designed for the astute digital photographer to tone map their image from the initial HDR conversion to an impactful work of fine art.

You will do a normal workflow thru Basic, Curves, Detail, and HSL modification. If you have set 2 clipping points on the LR3 histogram, you can see when a choice you make exceeds the image's capacity to be well tone mapped.

Detail

Detail contains both a new advanced noise reduction algorithm and sharpening. In landscape nature photography, the usual noise culprit is the blue sky When shooting HDR your captures will be noisy at slower shutter speeds. To perform complete noise reductions, sharpening, and evaluation for chromatic aberration, I suggest the following…

200% Scans

Zoom to 200% (repeated Ctrl +), hit the Home key, and examine your complete image. Home takes you to upper left corner of the image. If you see noise, begin increasing the Luminance slider until noise is gone. At this point, I usually sharpen narrow edges as well (LR3's landscape preset).

BUT ~ don't stop there…

You might find blown highlights (BHL) and chromatic aberration (CA). While LR3 can usually repair CA, it is limited regarding BHL. I find BHL seems to be a rather pesky byproduct of HDR Pro's processing.

To proceed with scanning, simply hit Page Down. This lets you quickly evaluate your image one column at a time, from upper left to lower right.

Continue your LR3 tone mapping until done, knowing you must take extra steps in CS5 to permanently repair grotesque BHL.

Spot Healing with Content Aware Fill in CS5

While you're familiar with a 200% zoom, when you go to 600%, you're at pixel level. Choose Spot Healing brush, find an offending BHL, and select a darker nearby background color (Alt Click).

Trial and error has taught me to avoid a common fallacy. When using a Wacom pen tablet, don't draw your line parallel to a BHL boundary. Spot Healing is choosing info within and without the region to process Content Aware Fill. Result – it may pick up a dark outside border and impose it on your repair effort.

Instead, start within the nearby not-so-BHL region, then draw orthogonal to that boundary. CAF remembers what it's crossed; if you don't go over the edge,

results are much more pleasing. While you draw more lines, you more quickly resolve BHL. It's like painting… where practice makes perfect.

CS5's New Sharpen Tool

Spot Healing usually over smooths the BHL region.

The Sharpen tool lets you replace Content Aware Fill's smooth texture with some features. I usually set Strength to 66%, then use pen pressure on the Wacom to control decide final sharpening.

This routine is simpler than making an Adjustment Mask in LR3, then changing the sharpening slider. Recall – CS5 makes permanent changes whereas LR3 works non-destructively.

Be Patient ~ you may want to draw the same area several times to smoothly refine BHL.

Finale

When you're done, save final image as a tif file, then make a jpg as well using LR3's Export command. You can save that final jpg in a Smart Collection. I usually put keywords in this image, including setting Keywords to kpr for each image I've labored over to create another fine art piece.

Enjoy…

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