

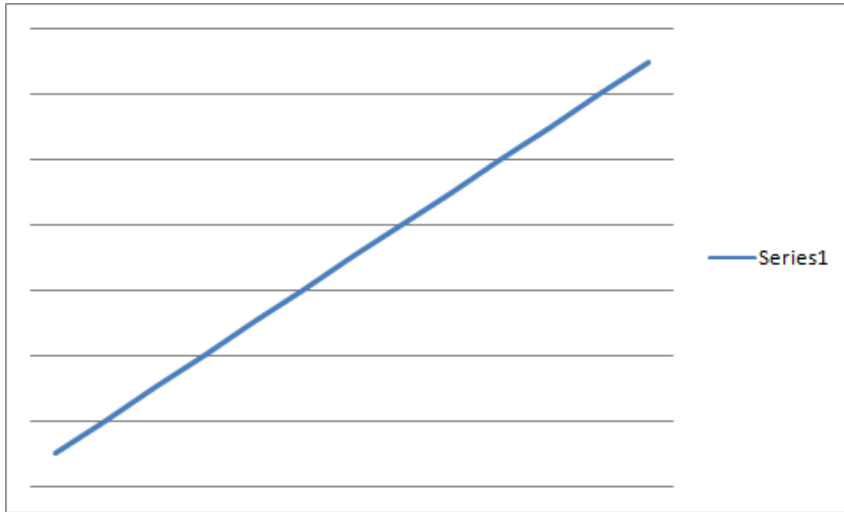
HDRI Part II

Review

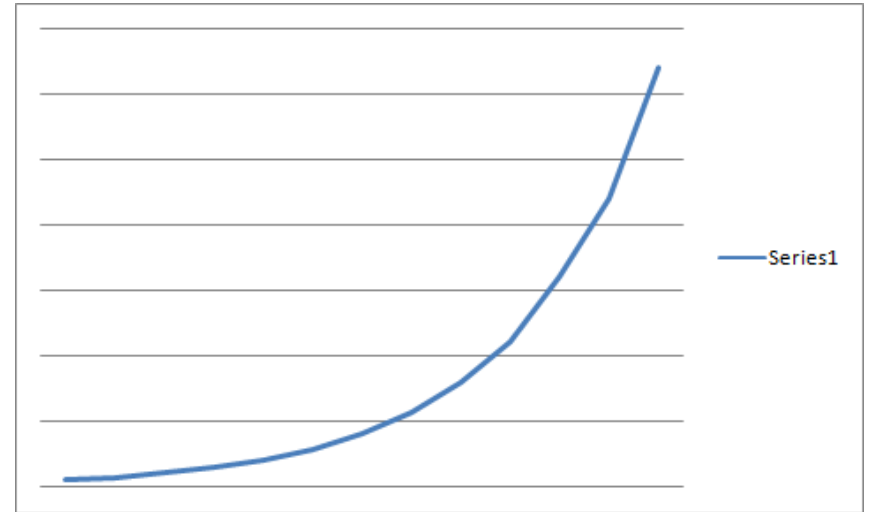
- Linear vs. Logarithmic
- Gamma Correction
- File Formats and sizes
- Global vs. Local Contrast

Linear vs. Logarithmic

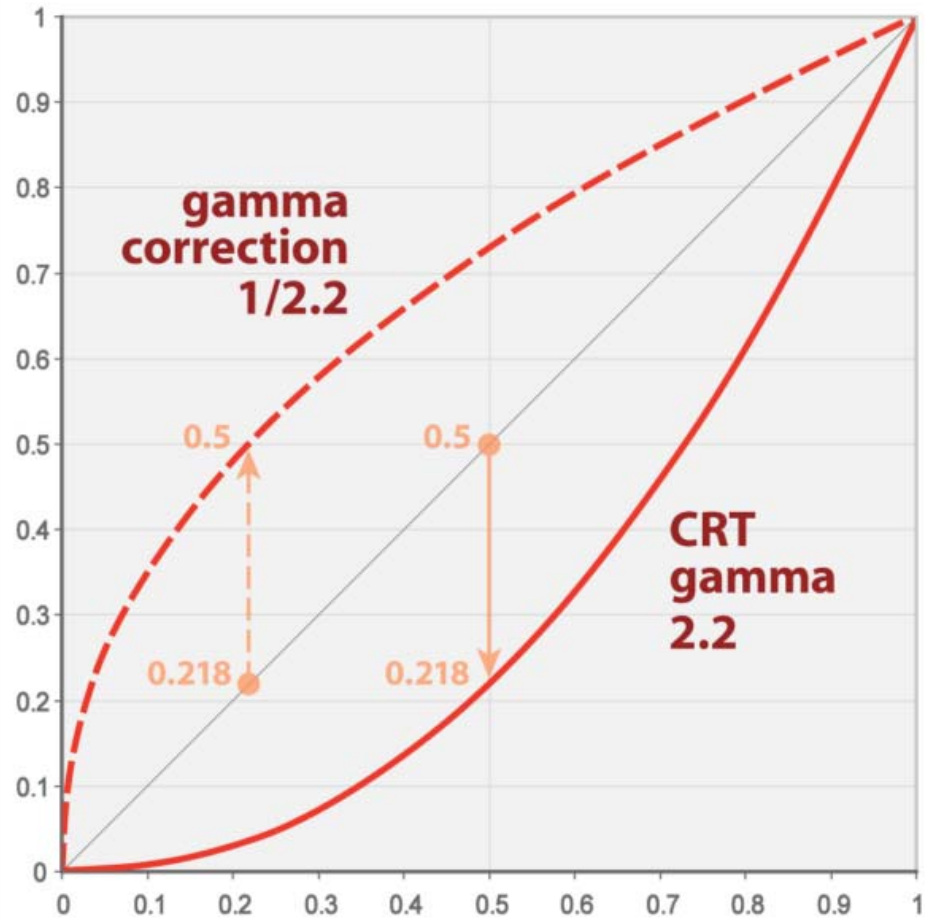
Linear






Logarithmic



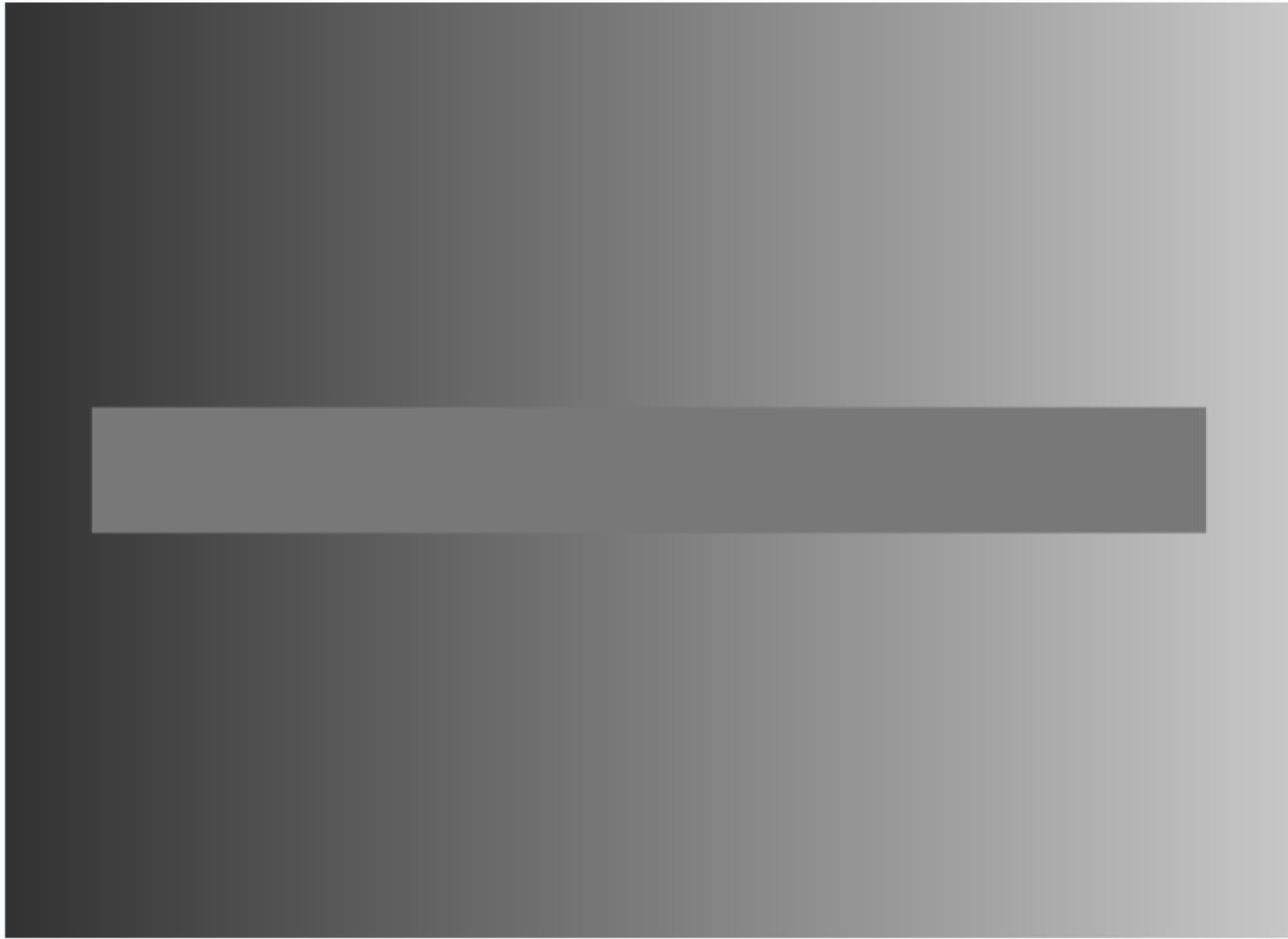
Gamma Correction



File Format and Sizes

Name	Date modified	Type	Size	Tags
 D200_080614_189And10more	6/14/2008 1:02 PM	EXR File	24,222 KB	
 D200_080614_189And10more	6/14/2008 1:02 PM	HDR File	31,733 KB	
 Kitchen_32	5/4/2008 11:15 AM	PSD File	117,348 KB	

Perceived Brightness

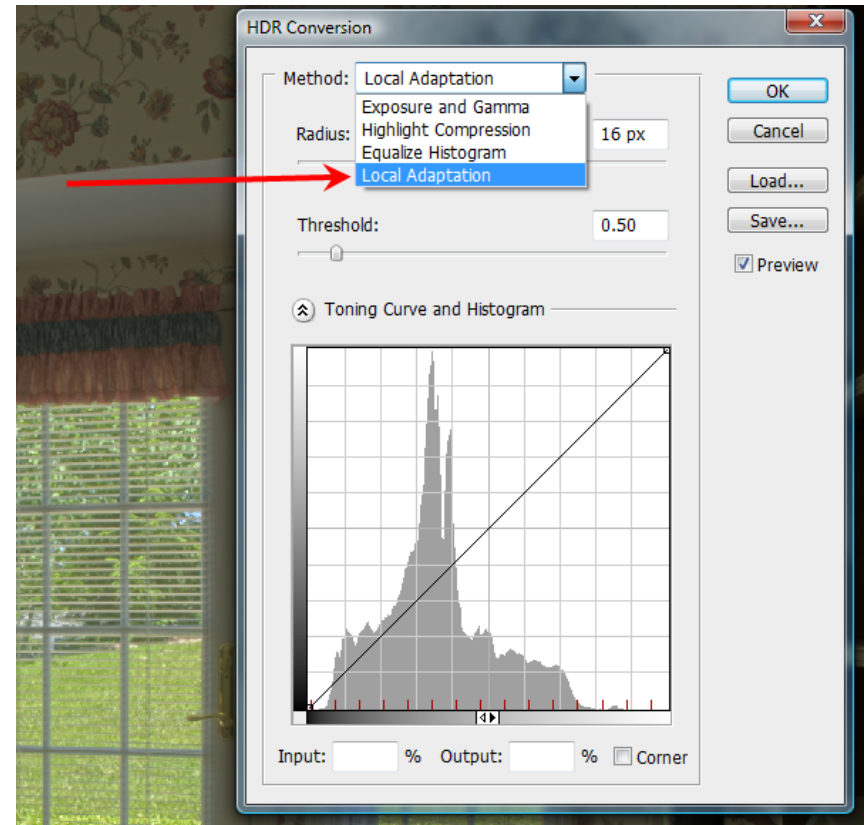


Global vs. Local

- Global:
 - Proportionately compress tonal values over the entire image.
- Local:
 - Adjusts tonal values based on neighboring pixels.

PS Tone-mapping Methods

- Exposure and Gamma
- Highlight Compression
- Equalize Histogram
- Local Adaptation



Exposure and Gamma (global)

- Exposure Slider
 - Left: Lowers brightness causes loss of shadows (black clipping)
 - Right: Raises brightness causes loss of highlights (white clipping)
- Gamma Slider
 - Left: Compresses shadows and expands highlights while darkening the image – lowers overall contrast
 - Right: Expands shadows and compresses highlights while lightening the image – increases overall contrast

Highlight Compression (global)

- Applies a custom curve that drastically reduces highlight contrast

Equalize Histogram (global)

- Redistributes the tonal curve of the image to fit within the normal tonal range of an 8 or 16 bit image.

Local Adaptation

- Radius controls the area around each pixel used to control contrast enhancement
 - Radius: each pixel is adjusted based on a group of surrounding pixels
 - Low Radius yields crisper detail – too much may look artificial
 - High Radius yields softer detail – too much may cause halo effect
- Threshold determines which tonal values are included in the local group set by Radius
 - The higher it is the stronger local contrast – too much may cause halo effect