
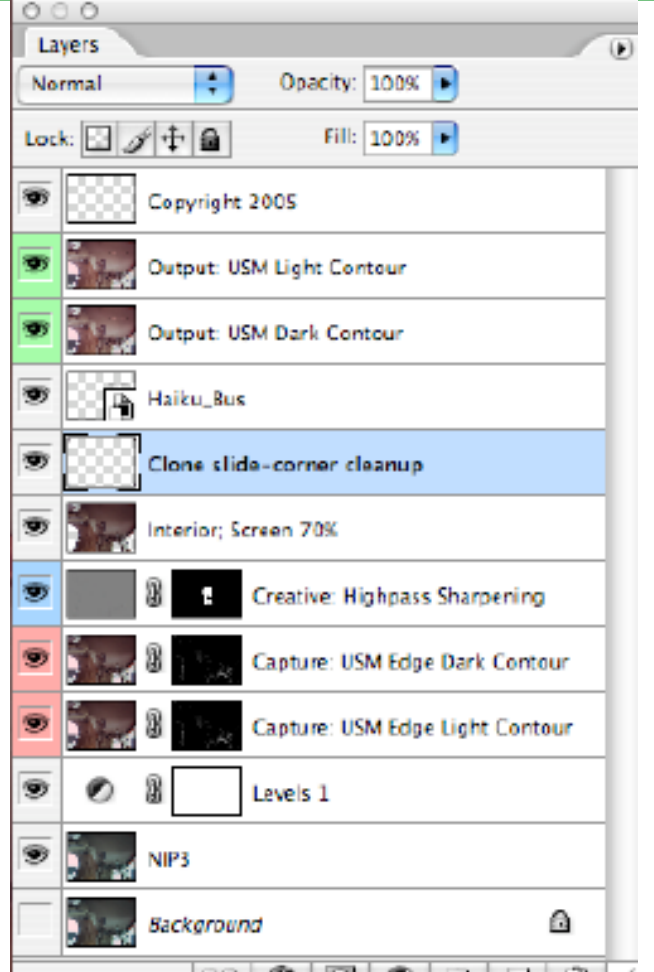


Photoshop Print Prep

Hal Work

May 28, 2005

Capture Process	Printed Image
<p>The image is of the inside of a bus going from Guadalajara to Guanajuato in 1981. The Kodachrome slide was scanned using Vuescan software in a Nikon V ED film scanner. The IR channel was used for dust removal. No noise reduction was used while scanning. Scanning output was into the Adobe 1998 RGB color space. Since using this process, I've seen almost no pixels out of gamut. A 111Mb TIFF file was generated from the scan.</p>	 <p>Hi am looking on the pin with my lamp To find in plot around</p>

Photoshop CS2 Workflow	Layers
<p>Duplicate layer and run Neat Image against it for noise reduction.</p> <p>Levels to set the black and white endpoints and to color correct using the grey eyedropper.</p> <p>TLR capture unsharp mask with luminous blend mode to recapture edges lost in scanning.</p> <p>TLR creative highpass sharpening with overlay blend mode on crucifix and flowers.</p> <p>To add more midtones to interior, stamp of previous layers deleting selection of windows. Use screen blending mode.</p> <p>Clone bits near corners as this is an uncropped slide.</p> <p>Place Illustrator haiku creating smart object.</p> <p>TLR output unsharp mask for printing. I chose to use the “dual contour” action which sharpens the dark contour first then the light. The light contour layer gets a lighten blending mode and the dark layer gets a darken blending mode.</p> <p>Copy copyright text from another .psd file.</p> <p>The file is saved as a layered .psd file with alpha channels. The resultant file is 875Mb.</p>	 <p>The Layers panel shows the following layers from top to bottom:</p> <ul style="list-style-type: none"> Copyright 2005 Output: USM Light Contour Output: USM Dark Contour Haiku_Bus Clone slide-corner cleanup Interior; Screen 70% Creative: Highpass Sharpening Capture: USM Edge Dark Contour Capture: USM Edge Light Contour Levels 1 NIP3 Background

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Three Pass Sharpening

I've used the widely accepted method of using three pass sharpening with this image.

Capture sharpening is used to recover the detail lost during digital capture and only affects edges. It's very subtle and should not be overdone.

Creative sharpening is next which will highlight the focus of the image. A black layer mask is used and the areas of interest are painted out with a white brush to reveal the sharpened areas. In my case, I used a feathered selection and did a fill with white.

Output sharpening will need to be less if capture and/or creative sharpening were used. it affects the entire image. Halos grow with more phases of sharpening. Care is needed to not overdo it.

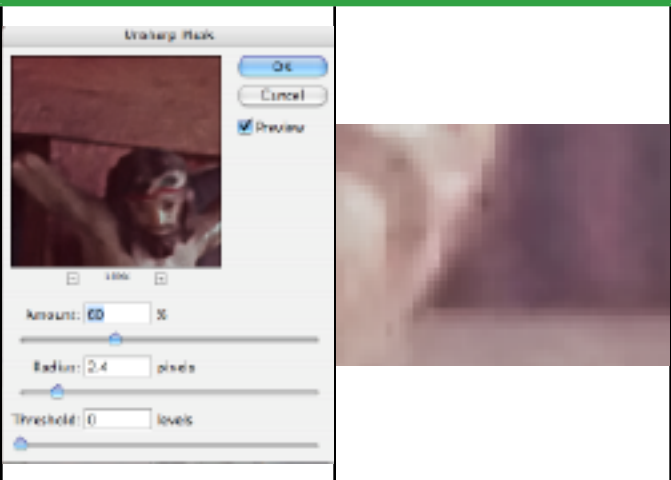
Determining Sharpening Amounts

Can't remember where I found this method. For unsharp mask, choose a radius that is the output dpi divided by 150. My output resolution is 360dpi. That's where I got 2.4px.

Next I play with the amount so that I don't create sharpening halos that are larger than about 5px or unwanted noise. Bruce Fraser recommends sharpening halos between 1/50 and 1/100".

Note - I choose 360dpi for output because it's an even divisor of my Imageprint RIP's resolutions of 1440 and 2880dpi.

Sharpening



Purpose of Channels

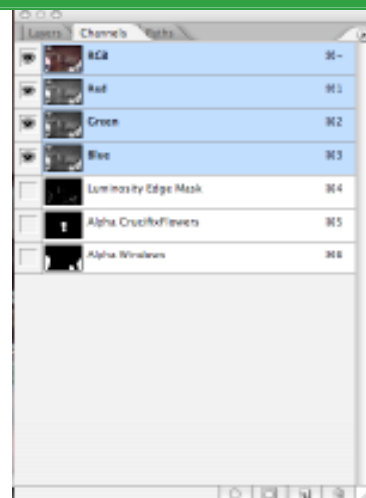
Some of the TLR sharpening actions create new channels.

I created the two alpha channels by creating selections then saving them.

I later used the crucifix alpha in the creative high-pass sharpening so that only the crucifix and flowers would be sharpened.

I thought about darkening the windows of the bus. But, that didn't work out. I did use it with the screen layer to brighten the interior.

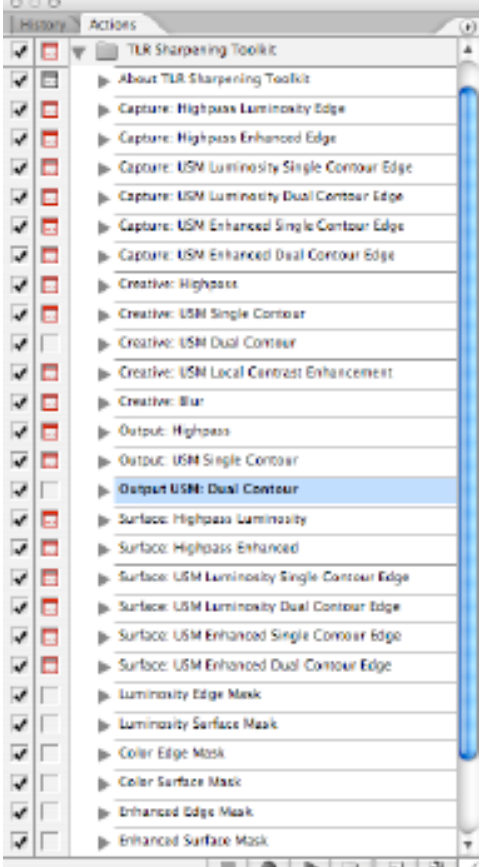
Channels



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Software Used	Sharpening Actions
<p>Mac OS X 10.4.1</p> <p>Vuescan (www.hamrick.com/vsm.html) commercial product</p> <p>Photoshop CS2</p> <p>Neat Image Pro (www.neatimage.com) commercial product</p> <p>TLR Sharpening Toolkit (www.thelightsright.com/DigitalDarkroom/PhotoshopTools.htm) freeware; donations welcome</p> <p>The great number of options that are available in Glenn Mitchell's TLR Sharpening Toolkit are shown in the image to the right. Some documentation is available on his site. For direct access to Mitch and his rapidly growing repertoire of actions and javascripts for Photoshop, join his Yahoo group at http://groups.yahoo.com/group/TheLightsRight/?yguid=113605064</p>	 <p>The screenshot shows the Photoshop Actions panel with the 'TLR Sharpening Toolkit' folder expanded. The 'Output USM: Dual Contour' action is highlighted in blue. The list of actions includes: About TLR Sharpening Toolkit, Capture: Highpass Luminosity Edge, Capture: Highpass Enhanced Edge, Capture: USM Luminosity Single Contour Edge, Capture: USM Luminosity Dual Contour Edge, Capture: USM Enhanced Single Contour Edge, Capture: USM Enhanced Dual Contour Edge, Creative: Highpass, Creative: USM Single Contour, Creative: USM Dual Contour, Creative: USM Local Contrast Enhancement, Creative: Blur, Output: Highpass, Output: USM Single Contour, Output USM: Dual Contour (selected), Surface: Highpass Luminosity, Surface: Highpass Enhanced, Surface: USM Luminosity Single Contour Edge, Surface: USM Luminosity Dual Contour Edge, Surface: USM Enhanced Single Contour Edge, Surface: USM Enhanced Dual Contour Edge, Luminosity Edge Mask, Luminosity Surface Mask, Color Edge Mask, Color Surface Mask, Enhanced Edge Mask, and Enhanced Surface Mask.</p>

Afterthought

One thing that I would have done differently with this image was to have applied a surface mask to keep the noise reduction software from softening the edges.