

softwhile

CrispImage Plug-in for Adobe Photoshop^{*} User Guide

Revision 1.0

Summary Description

CrispImage is a Photoshop Plug-in that provides image sharpening superior to the standard unsharp mask. It provides a high level of user control over the sharpening and allows the user to adjust for the resolution of the target output media.

Platforms Supported

CrispImage is available for Windows systems running Photoshop 7.0 or 8.0, or Photoshop Elements 2.0.

Installing the Plug-in

Download the CrispImage setup program, *CrispImagePI.exe*, from <http://www.softwhile.com/download.html> and run it. This will copy plug-in to the proper Photoshop plug-in folder. If you have more than one version of Photoshop installed, CrispImage will only be installed in the last installed version.

Licensing

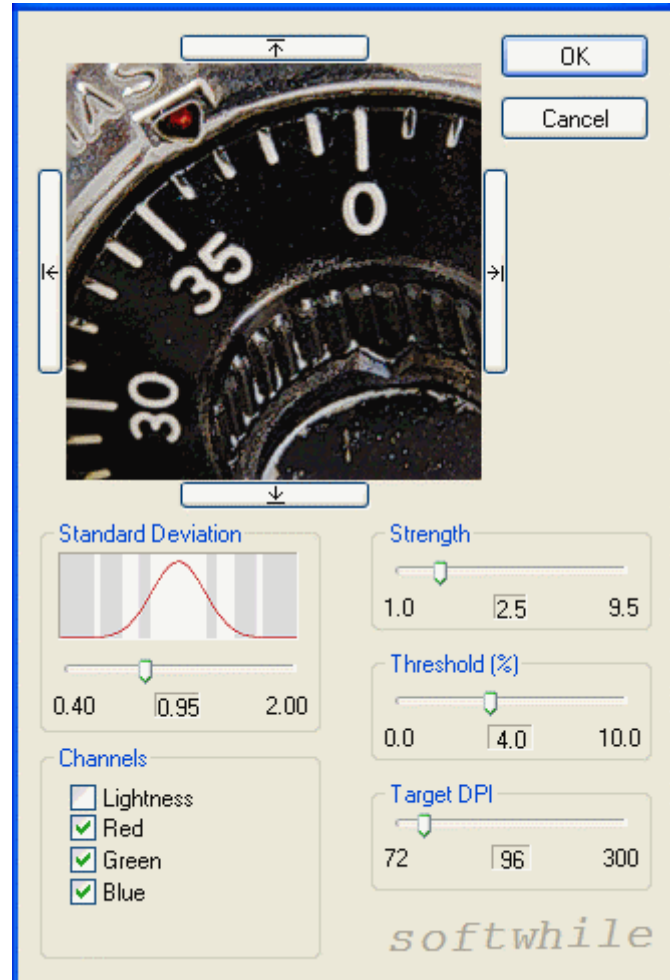
When initially installed, CrispImage will have a temporary license that will last for 7 days, giving you enough time to thoroughly evaluate it. At the end of the evaluation period, you will not be able to apply the filter. To enter a permanent license key, invoke the plug-in and click on the **License** button on the dialog box. Enter the license key and click on **OK**. When a valid license key is entered, the **License** button will no longer appear on the dialog.

Using Crisplmage

Invoke Crisplmage by selecting **Filter->Sharpen->Crisplmage** in Photoshop. This will bring up the Crisplmage dialog box shown on the right. The preview window shows the current settings applied to a portion of the image. As settings are changed, the effect can be seen in the preview window. When sliders are dragged, the new setting is not seen in the preview window until the mouse button is released. Clicking the **OK** button will apply the sharpening to the entire image. Settings are saved on an *image mode* basis, so when you apply Crisplmage to an RGB image, the initial settings are the last settings you used on an RGB image.

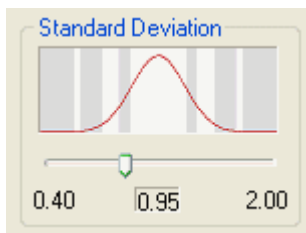
Preview

The portion of the image can be selected by pressing the mouse button while the cursor is inside the preview window, and 'dragging' the window to a new location. The four buttons at the edges of the preview window will cause the preview to be panned to the extreme edge of the image.



Individual Settings

Standard Deviation



Move the slider control to adjust the standard deviation used to compute the main sharpening mask used. The graph helps to show the effect of this setting. The vertical dimension represents the weight given to pixels by the mask. The horizontal dimension represents the distance from the target pixel. The inner-most gray bands show the distance to the nearest neighbors of the target pixel, the next pair of gray bands show the distance to the pixels that surround the target pixels neighbors, and the outermost gray bands show the distance to the next larger square of surrounding pixels.

Strength

The strength controls the basic amount of sharpening that is applied. Images that are printed usually require more sharpening than those to be displayed on the web. Images that have had some sharpening already applied by a camera or scanner also need less sharpening.

Threshold

The threshold value controls what level of pixel value difference will trigger sharpening. This is used to prevent the enhancement of noise or grain in an image.

Target Resolution

This setting adjust the sharpening to work best for the media that will ultimately be used to display the image. Normally this is a computer monitor, or a printer. Monitor resolutions are typically from 72 to 100 dots per inch. Printers used for photography (ink-jet, dye sublimation, photographic, etc.) usually print at around 300 dots per inch. Judging sharpening for a print can be difficult on a computer monitor. When a high resolution is selected in CrispImage, the preview window is resampled to more closely predict how a print will appear with the current settings.

Channels

You can select to sharpen all or a subset of the channels in an image. For RGB images, a *Lightness* pseudo-channel is also provided as an option. If this is selected, an internal conversion to HSL is done and sharpening is done only on the *Lightness* channel, before it is converted back to RGB.

Image Types Supported

CrispImage supports all image modes except *Indexed Color* and *Bitmap*. Both 8 and 16-bit modes are fully supported (sharpening is done using 16-bit values on 16-bit images).

Sharpening Tips

Most or all sharpening should generally be done after an image has been sized to its display/print size. Too much sharpening in a digital camera, or scanner software can leave halos and noise that is very difficult to undo. For the best results, keep these early sharpenings to a minimum. There is some benefit to pre-sharpening if the images is enlarged a significant amount (greater than about 50%).

Most printers require some over-sharpening, as it appears on a monitor, due to dot gain and the way smaller pixels are perceived. Some experience will help you judge the amount of sharpening for prints, but making several test prints is the best way to get good results.

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