Guideline for Use of Illumination Fix Toolkit 10-28-09

version 1.03 with 1.7 updates

Overview:

This toolkit provides means for fixing photos that have uneven lighting.   A typical lighting problem is a flash picture with an over-exposed foreground and an under-exposed background such as this one below.
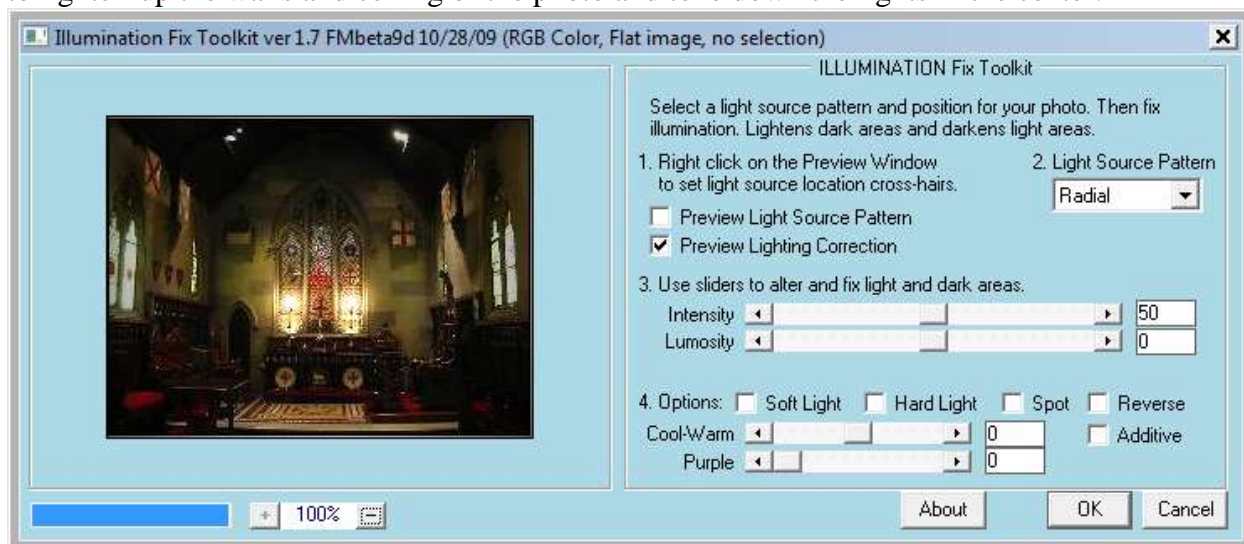

This can be corrected to look like the one on the right. Note that the foreground is darkened and the background is lightened.

Five Steps to a Fix:

Here is a photo of a church with a central light source and some window light sources. We want to lighten-up the walls and ceiling of the photo and tone down the lights in the center.
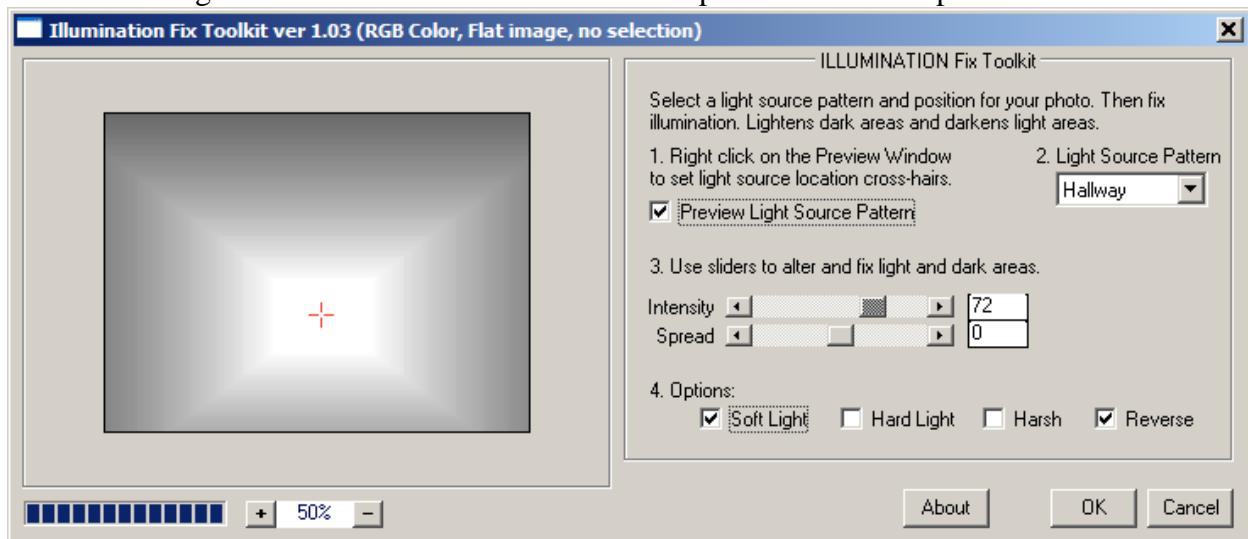

Step 1. Set the position of the light source cross hairs to the location of the lights you want to reduce or increase, i.e. between the two central lights. This is done by right-clicking the cursor in the Preview Window.
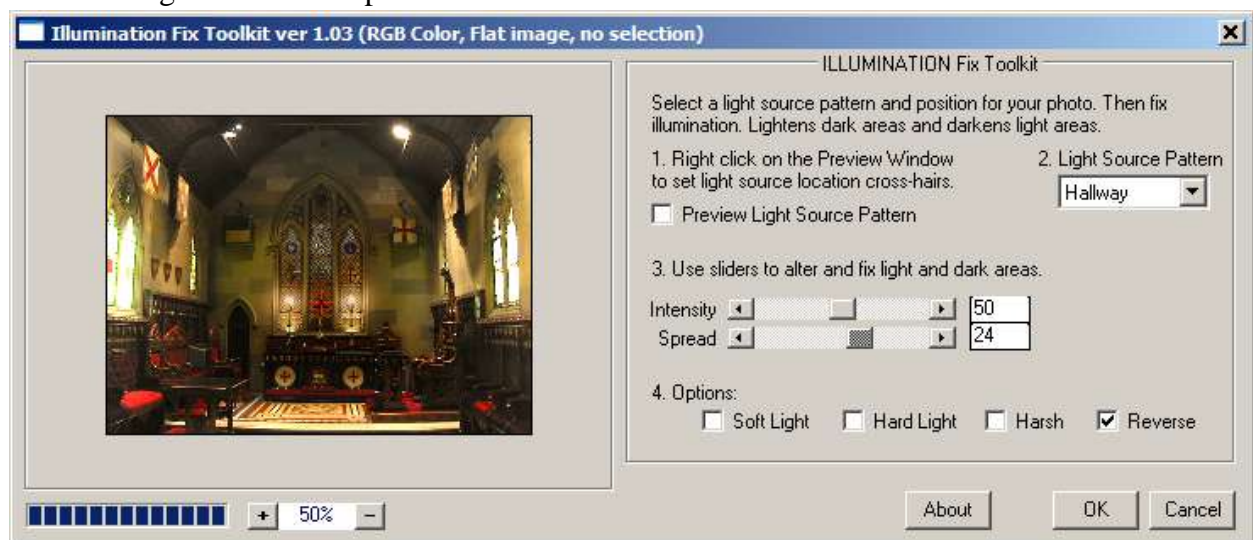
Note: this version 1.7 is an update from 1.03. See the appendix for changes.

Step 2. Select a light source pattern from the drop-down combo-box, such as this Hallway pattern below that shows the light coming from the center in a four-sided pattern. You can use the Preview Light Source Pattern checkbox to see the patterns. A radial pattern is the default.

Step 3. Use the sliders to alter the light and dark areas of your picture. To alter the intensity and size of the light-source fix-up.

Step 4. Use the Options for setting the particular properties of the light source fix-up. Note that "Reverse" reverses the light and dark areas of the light source. [version 1.7 changes default to brighten center of selected area vs. darken.}
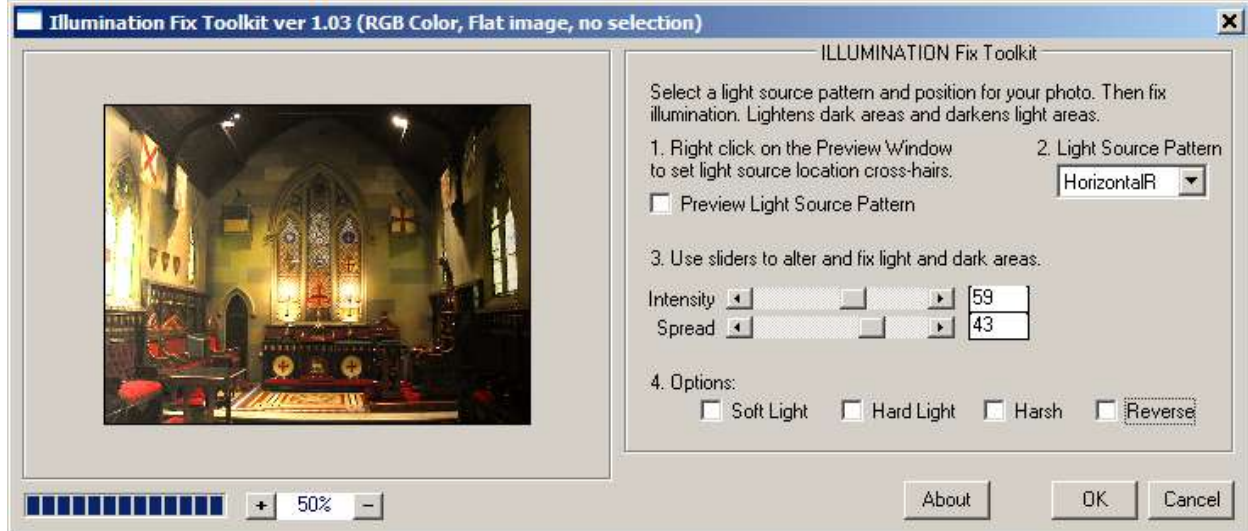
Step 5. Play with the settings and light locations until you are satisfied, and then save your changes by clicking on the OK button. If you wish, you can re-run the Illumination Fix Toolkit to fix other light sources in your modified picture.

Below are some examples of varying light sources and options used on the same picture.
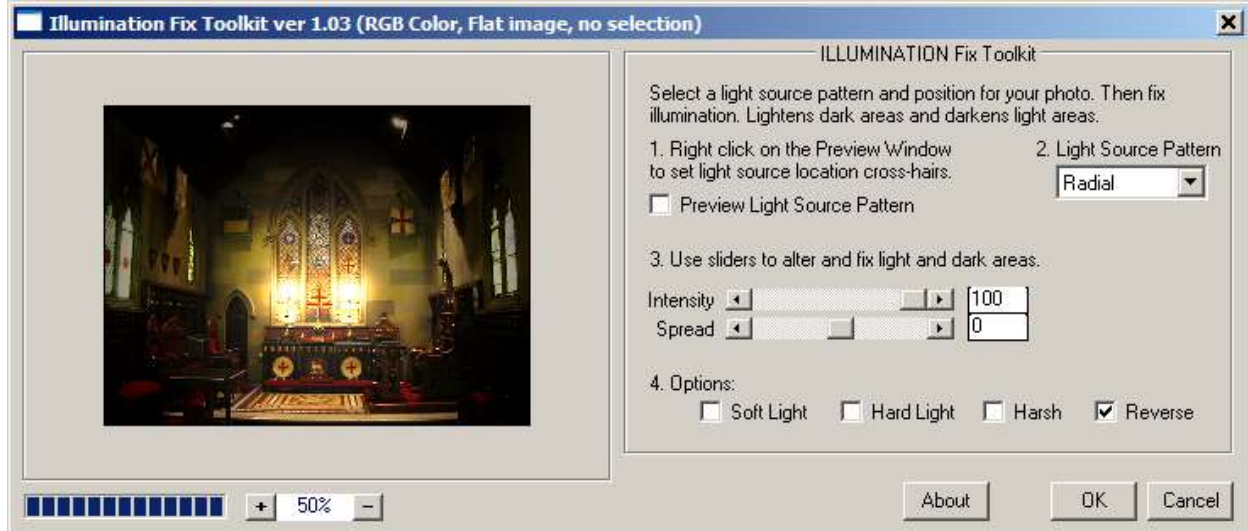
Example: Fix-up using a reversed vertical light source to lighten the ceiling.

Example: Using a horizontal light source to just lighten the left wall.

Example: Using a radial reversed light source to accentuate the center and darken the walls.

Appendix A
Changes in version 1.7

1. Light sources now default bright at the center of the selected region versus dark.
2. The Spread slider has been renamed Luminosity.
3. A Preview Lighting Correction checkbox has been added to see the difference your change makes.
4. An Additive checkbox been added to restrict the change to all positive values for images that are fully underexposed.
5. A Color corrections slide bar has been added to warm up or cool down colors.
6. A Purple shadows slide bar has been added.
7. The filter has been recompiled with FilterMeister version FM 1.0 beta 9d. This version is Vista compatible.
8. The ffp source code for this filter is included. It could use some improvements. If you have a FilterMeister License (http://www.filtermeister.com) , you can modify it as you wish. You get extra "good and trustworthy person" points if you email a copy of your updated ffp source code back to me.

Lotis Digital Arts, Port Orchard WA, USA
Lotis666@gmail.com