Photomatix Plug-in for Aperture

Version 3.0

User Manual



© 2014 HDRsoft. All rights reserved.

Table of Contents

Introd	ction	1
1	Taking Photos for HDR1.1Setting up the Camera1.2Selecting the Exposures	3
2	Installing2.1Use the Installer, or Install the Plug-in Manually	
3	Selecting and Pre-Processing Images3.1Load a Bracketed Image Set3.2General Merge to HDR Options3.2.1Alignment Options3.2.2Deghosting Options3.2.3Noise Reduction Options3.2.4Reduce Chromatic Aberration3.3Working with Single Image Files	5 6 6 6 7 7
4	Adjusting Images Using Tone Mapping or Exposure Fusion4.1Image Adjustment Workflow4.2Presets4.2.1Built-in Presets4.2.2Save, Load & Share Custom Presets	9 10 10
5	Image Adjustment Settings5.1Tone Mapping Details Enhancer Settings5.2Tone Mapping Contrast Optimizer Settings5.3Tone Mapping Tone Compressor Settings5.4Fusion/Natural Settings	
6	Preferences 6.1 Import Options Panel	
7	Registering the Plug-in with Your License Information	19
8	Getting More Information, and Help Resources	
Glossa	y	

Each section title above links to its section below. All footers link back to this Table of Contents.

Introduction

The Photomatix Plug-in for Aperture works with multiple photographs of the same scene, taken under different exposure settings. These differently exposed images of the same scene are commonly referred to as "bracketed" images, or as "a bracketed image set".

The Photomatix HDR Plug-in merges a bracketed image set into one image. It then lets you adjust the merged image to your liking using HDR tone mapping or exposure fusion methods.

You can also use the Plug-in to tone map a single photo. However, you will get optimal results with multiple exposures. See the online FAQ for details on how to take exposures of a high contrast scene.

The plug-in offers four methods to adjust your image.

- **Details Enhancer Tone Mapping**: increases local contrast, which has the effect of "boosting" shadows, and enables adjusting images for artistic and dramatic effect.
- **Contrast Optimizer Tone Mapping**: good at producing realistic-looking results while still enhancing shadows and highlights.
- **Tone Compressor Tone Mapping**: adjusts contrast uniformly, producing a more "photographic" look, and avoiding noise and halo artifacts.
- **Fusion/Natural:** combines your bracketed photos in such a way that bright details (highlights) are taken from the underexposed photos and dark details (shadows) from the overexposed ones. The result is a more "natural" look than tone mapping.

The settings for each method are described below in Section 5.

1 Taking Photos for HDR

The shooting phase is essential for getting good results with Photomatix HDR processing. To photograph a high contrast scene, you need to take several exposures in order to capture information in both the highlights and the shadows of the scene. The exposures taken must properly cover the dynamic range of the scene, especially the shadows.

The number of photos you need depends on the dynamic renge of the scene. It also depends on the **Exposure Value** (EV) spacing separating the photos. If you take them in one-EV steps (e.g., -1, 0, +1 EV), you will need more photos than if you take them in two-EV steps (e.g., -2, 0, +2 EV). We recommend shooting in two-EV steps whenever possible.

High contrast scenes can be grouped into roughly two types depending on their dynamic range:

- Medium dynamic range scene: Most landscapes and other types of outdoor scenes fall into this category. Three exposures taken in two-EV steps (i.e. -2, 0 +2 EV), or five exposures taken in one-EV steps, are usually sufficient for this type of scene.
- High dynamic range scene: A typical example is the interior of a room with a view outside the window on a sunny day. You need to take at least five exposures in two-EV steps (or nine exposures in one-EV steps) to capture this type of scene, but you may need more.
- Limits of auto-bracketing: Most cameras that autobracket are limited in the number of photos and the EV range that can be captured automatically. If your camera cannot auto-bracket at least 3 photos in two-EV steps, or 5 photos in one-EV steps, your options for capturing the full dynamic range of a typical scene are:
 - 1. **Manually**: Manually shoot all exposures of the bracketed set.







Three exposures of a medium dynamic range scene, in two-EV steps

2. **Manually extended auto-bracketed set:** Shoot an auto-bracketed set, and then augment this set with additional manual exposures as necessary, above and/or below the exposures of the automatically shot frames.

3. **Two auto-bracketed sets, offset by Exposure Compensation**: A camera that is limited to three frames at one-EV steps can cover the necessary dynamic range by combining two bracketed sets. This may be more convenient than shooting 3 frames manually. Begin by shooting one bracketed set at (for example) minus one-EV Exposure Compensation and then Shoot another set at plus one-EV compensation. This produces 6 images, 3 of which are the desired two EV separated bracketed set. The remaining 3 images can be discarded.

The source photographs for HDR processing can be taken with digital or film-based cameras. The only requirement is that the exposure can be adjusted when taking pictures. If you use a film-based camera, you will need to scan the photographs into your computer before processing them.

1.1 Setting up the Camera

- Set your camera to **Aperture priority** (the "A" setting) so that only shutter speed will vary between the exposures.
- Set a low ISO such as ISO 100, or lower if available.
- Turn off the flash. The flash may try to balance the exposure of all the images, when the goal instead is a range of exposures.
- A tripod is typically recommended, but is not required, as the plug-in includes options to automatically align hand-held photos.

DSLR cameras and some compact digital cameras offer **Automatic Exposure Bracketing** (AEB). This enables you to automatically take three or more exposures in a row; one at the proper exposure, one or more underexposed, and one or more overexposed. Follow these steps if your camera offers AEB mode:

- Select the **Continuous shooting** mode on the camera's drive setting. Consult your camera manual for model-specific instructions for using this setting.
- Set the camera to Auto Exposure Bracketing (AEB)
- If possible, use the camera's self-timer setting, a cable release or a wireless shutter release to minimize camera shake.
- Set the exposure increment to +/- 2 for optimal exposure range. If your camera does not offer +/- 2 exposure increments, select the maximum possible. Consult the camera manual for modelspecific instructions for choosing this setting.

1.2 Selecting the Exposures

To get good results with HDR processing, your bracketed sequence must include photos that correctly expose highlights as well as photos that correctly expose shadows. The latter is especially important to prevent noise in the processed HDR image.

Exposure comp./AEB setting
Darker Brighter
-7.6.5.4.3.2.1.0.1.2.3.4.5.6:7

Canon Rebel T2i/550D LCD showing AEB with +/-2 EV increments selected



AEB settings on a Nikon D7000 (3 frames, at +/- 2 EV)

Note

The continuous shooting mode may not always be the best strategy because camera shake may build up. It is recommended to use a method that ensures the least possible shake for each single shot, such as mirror lock-up functionality, if available.

In the lightest photo of the sequence, the darkest shadow areas of the scene should be shifted at least into the midtones. To check this, use your camera's histogram preview in playback mode. In your most overexposed photo, the left part of the histogram should be empty until 1/3rd of the histogram's width. If this is not the case, add one or more photos taken with longer exposure times. Another option is to re-shoot the exposure sequence with the normal exposure set one or more EVs higher if your most underexposed image in the exposure sequence was too dark. This is the case when the histogram of your darkest image is completely empty on the right half.

The number of exposures needed depends on the dynamic range of the scene, in addition to the exposure increment. For most outdoor scenes, three exposures taken at +/-2 exposure increments is sufficient, provided the scene does not include the sun. However, for the interior of a room with a bright view out the window, you will need at least five images taken with an exposure increment of +/-2, or nine images taken with an exposure increment of +/-2, or nine images taken with an exposure increment of +/-2.

In scenes with extreme differences between light and dark details, you should change the exposures manually to ensure you capture a wide enough range to cover your scene.

2 Installing

To install the Photomatix Plug-in for Aperture, open the folder into which you downloaded the plug-in (which by default is your **Downloads** folder) and open the folder named **PhotomatixPlugin 3.0**.

2.1 Use the Installer, or Install the Plug-in Manually:

Use the Installer

- 1. Double-click on the file InstallerPhotomatixPlugInForAperture to start the installer.
- 2. Follow the on-screen instructions to complete the installation.

Install Manually

- 1. Move the file **PhotomatixPlugIn.ApertureEdit** to: Library/Application Support/Aperture/Plug-Ins
- 2. If there is no 'Plug-Ins' folder in **Application Support/Aperture**, create this folder manually.
- 3. Start or restart Aperture, so that Aperture will load the newly installed Plug-in.

3 Selecting and Pre-processing Images

3.1 Load a Bracketed Image Set

To load a bracketed image set into the plug-in:

1. Select a bracketed image set in the Browser or Viewer (the following screen shot shows the 3 lighthouse images selected in the Browser).



A 3-photo bracketed set is selected

- 2. Right-click or CTRL-click on one of the selected images to open the contextual menu.:
- 3. Select Edit with Plug-in / Photomatix HDR..., as shown in the following screen shot.



Right-click, or CTRL-click, to access the Edit with Plug-in menu

3.2 General Merge to HDR Options

After the bracketed images are selected, you can customize how the images will be merged for processing. Options include aligning the images and removing 'ghosts'. Refer to the following list for a description of the options when merging bracketed images:

3.2.1 Alignment Options

The **Align images** option is checked by default. It corrects misalignment problems when the camera moves slightly between the bracketed frames. Hand-held photographs have camera movement but even images shot on a tripod may have some slight camera movement as well, such as movement caused by wind, for example.

🤌 Note

The Align source images option should not be checked when your source images are stitched panoramas or when they are "fake exposures" derived from a single RAW file.

- **taken on tripod**: Select this alignment method when you used a tripod to take automatic bracketed photos. This method is fast, but corrects only for horizontal and vertical camera movement, and not for rotation or other types of motion.
- hand-held: Select this method when you did not use a tripod or when the images are difficult to align. The 'hand-held' method corrects for several types of camera movement, including horizontal and vertical motion, rotation, and forward and backward movement. When the 'include perspective' option is selected, it corrects for every kind of minor camera movement.
- Include perspective correction: This option requests that the 'hand-held' alignment method corrects for all types of camera movement, including rotation in all three dimensions, as well as horizontal, vertical, forward, and backward motion.
- **Crop aligned images**: This option removes the unneeded borders resulting from alignment adjustments. Unchecking it disables this, so that the resulting image has exactly the same width and height as the source images, but may have white areas around the edges.

3.2.2 Deghosting Options

Deghosting addresses the problem of artifacts that appear when combining bracketed images of a dynamic scene. For example, if the moving subjects are people walking, the people will appear multiple times in the combined image,

Mer	ge to HDR Options
🗹 Align images	Crop aligned images
 taken on tripod 	
🔵 hand-held	\checkmark include perspective correction
✓ Remove ghosts ✓ Reduce noise on Unc	Very Mild Deghosting: Very Mild Medium Strong Very Strong
Deghosting settings remove	ssive' the ghost removal is. Strong e more ghosts but increase the chance of medium or mild Deghosting setting to
	Merge to HDR
6	de als estimas etuese este

Setting deghosting strength

once for each frame, faded and in a different position as if they were "ghosts". This is why artifacts that arise from movement in a scene are commonly referred to as "ghosting" and the techniques to eliminate them are referred to as "deghosting".

Select **Remove ghosts**, and then set a Deghosting strength. The general rule of thumb is that you should use the lowest level of deghosting strength that is sufficient to deghost your image.

A high Deghosting setting removes more severe ghosting artifacts, but also increases the possibility and severity of unwanted artifacts.

3.2.3 Noise Reduction Options

The **Reduce noise on** option applies a high-quality noise reduction algorithm. Noise reduction is typically most helpful in dark areas of source images, and these dark areas are more prevalent in the underexposed and, sometimes, in the normally exposed frames.

With this in mind, you can use the **Reduce noise on** menu to specify that noise reduction be applied only to the darkest images in the bracketed set. Or, if you wish, noise reduction can be applied to all images in the set.

🗹 Reduce noise on 🗸	Underexposed image(s) only
Reduce Chromat	Normal exposure and underexposed All source images
Ν	loise reduction options

3.2.4 Reduce Chromatic Aberrations

The **Reduce Chromatic Aberrations** option automatically corrects color fringing due to chromatic aberrations of the lens. Checking this option is recommended, given that chromatic aberrations tend to show around high contrast edges, and are particularly an issue for HDR images.

3.3 Working with Single Image Files

The Photomatix Plug-in for Aperture supports Tone Mapping of single image files.

To load a single image, simply select the image you wish to work with and then right-click / CTRL-click on one of the selected images, to access the contextual menu, and then select **Edit with Plug-in / Photomatix HDR...**

When processing single images, there are no merge options to set. However, one or two dialog may appear, to let you choose whether to reduce the noise, and whether to reduce chromatic aberrations, before tone mapping:

	Do you want to reduce noise?					
٢	Click 'Yes' to apply a high quality noise reduction to your photo before tone mapping. This is particularly recommended if your photo is underexposed.					
	(Note: You can choose not to show this prompt via the Preferences accessible from the plug-in)					
	No					

To bypass these dialogs, an option can be preset in

Preferences either to always reduce or to never reduce noise and chromatic abberation in single images.

The Preferences window is accessed from within the plug-in.



Tone mapping with the Details Enhancer method makes any noise present in the image much more visible, so it is a good idea to pre-process your image with noise reduction before tone mapping.

> Note

Exposure Fusion is not available when processing a single image.

4 Adjusting Images Using Tone Mapping or Exposure Fusion

The plug-in's window has three main sections:

- Adjustments panel on the left
- **Preview** in the middle
- Thumbnail Presets on the right.

This section describes the workflow for adjusting, previewing and processing images, and describes each Tone Mapping and Exposure Fusion setting.

4.1 Image Adjustment Workflow

After you have merged your source images (or loaded a single image), the next steps within the Plug-in are:

1. Adjust the image to your liking:

Choose a style you like from the Preset thumbnails, shown at the right side of the plug-in window. You can then refine the effects of the chosen Preset in the **Adjustments** panel.

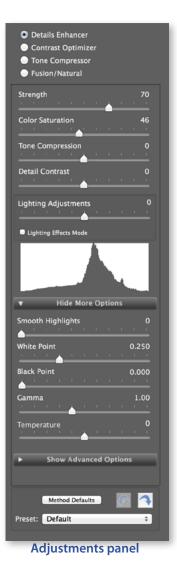
See to **Sections 4.3 through 4.6** for detailed descriptions of the settings.

Refer to Section 4.2.3 for more information about using presets.

2. Process the image:

When you are satisfied with the adjustments, apply your settings to the image at its original resolution by clicking **Save**.

The processed image will now be saved in your Aperture project.





Note

To undo changes made during the adjustment process, click the undo arrow at the bottom of the adjustments panel. To redo adjustments, click the redo arrow to reapply changes.

4.2 Presets

There are two types of presets, **built-in** and **custom**.

Only built-in presets are displayed in the Preset Thumbnails panel.

Your own custom presets can be saved and loaded using the **Preset:** menu located at the bottom of the Adjustments panel.

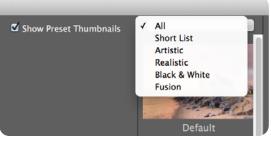
4.2.1 Built-in Presets

The **Presets** panel shows the available built-in presets, giving a preview of the effect of the preset on your image. When you click on a preset thumbnail, that preset is applied to the Preview.

Built-in presets are "factory" presets that are provided with the software.

32 built-in presets are available when you are processing bracketed photos, and 27 when you are processing a single file.

The pop-up menu at the top left of the **Thumbnail Presets** panel lets you view subset categories of built-in presets.



Preset thumbnails panel category menu

There are four categories of built-in presets: Artistic, Realistic and Black & White, and Fusion

You can also display a selected subset of presets, which includes examples from all categories, by selecting the **Short List** option.



When using the Details Enhancer or Contrast Optimizer methods, the Preview is not always an accurate representation of the final tone mapped image.

4.2.2 Save, Load & Share Custom Presets

Custom presets are those which you configured while adjusting an image, and then saved for your future use, or to share with other users of Photomatix. Or, perhaps another Photomatix user shared their presets with you.

To work with Custom Presets, click the **Preset** drop-down list located at the bottom of the Adjustments panel.

Save a Custom Preset

To save your own custom preset:

- 1. In the Adjustments panel, click the **Preset** drop-down list.
- 2. Select **Save Preset** from the list.
- 3. Enter a name for the preset in the File name field and click **Save**.

The newly saved preset will appear at the bottom of the Preset menu, the next time that you open the plug-in.

Share a Custom Preset

Once you have saved a custom preset as detailed above, you can share this preset with another user as follows:

The newly saved preset will appear at the bottom of the Preset menu, the next time that you open the plug-in.

To share this preset with another user:

1. In the Finder, select the menu option **Go / Go to Folder...**

2. Copy the folder path below, and paste it into the **Go to Folder** dialog, and hit return or click **Go**

~/Library/Containers/com.apple.Aperture/Data/Library/Application Support/Plug-Ins/Photomatix/Presets/

If you have made any custom presets, they will be located here.

3. Copy the preset to your Desktop, or other location from which it will be easy to find, so that you can share it by email or another method.

Load a Custom Preset

To import a custom preset created by other Photomatix users, select the menu item "Load Preset..." in the drop-down list. Then browse to the location on your computer where you downloaded the preset files. Preset files have a ".xmp" file extension.

	Custom Load Preset Save Preset
	Previous Session
V	Unlisted
	Default
	Balanced
	Photographic
	Natural
	Painterly
	Vibrant
	Enhanced
	Deep
	Surreal
	Grunge
	Creative
	Soft
	Smooth
	Monochrome
	My 1st Custom Preset

Preset menu

5 Image Adjustment Settings

5.1 Tone Mapping Details Enhancer Settings

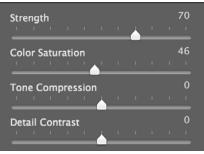
General Settings

- **Strength**: Affects the amount of enhancement given to contrast and detail in the image. A value of 100 gives the greatest enhancement. Moving the slider to the left gives a more natural effect. The default value is 70.
- **Saturation**: Adjusts the color saturation of the image. The greater the saturation, the more intense the color. Setting the slider to its lowest value (0) produces a grayscale image. The default value is 46.
- **Tone Compression**: Adjusts the dynamic range of the tone mapped image. Moving the slider to the right decreases the dynamic range, brightening the shadows and darkening the highlights. Moving to the left has the opposite effect, giving a more 'natural' look. (Note: This setting was previously named 'Luminosity'.)
- **Detail Contrast**: Controls the amount of contrast applied to detail in the image. Moving the slider to the right increases the contrast of details and gives a sharper look to the image, but also has a darkening effect. Moving to the left decreases the contrast of details and brightens the image.
- Lighting Adjustments pane: The two lighting adjustment modes affect the overall 'look', controlling the extent to which the image looks natural or surreal.
- Lighting Adjustments slider: Affects the overall 'look', controlling the extent to which the image looks natural or surreal. Moving the slider to the right makes the image look more natural. Moving to the left makes it look more 'painterly' or surreal.
- Lighting Effects Mode checkbox: Lighting Effects Mode lets you switch between two modes for the Lighting Adjustments setting, where each mode produces slightly different results. Checking the box tends to produce results with a type of 'Magic Light' effect. Note that finer control is not possible in this mode.
- **Lighting Effects Mode**: Affects the overall 'look', controlling the extent to which the image looks natural or surreal.

More Options

- **Smooth Highlights**: Reduces contrast enhancements in the highlights, preventing white highlights from turning grey, or preserving a uniform blue sky. It is also useful for reducing halos around objects placed against bright backgrounds.
- White Point: Sets the maximum value of the tone mapped image. Moving the slider to the right sets a lower maximum value, which brightens the image and increases global contrast. Moving to the left sets a higher maximum value, which decreases global contrast and reduces highlights

sets a higher maximum value, which decreases global contrast and reduces highlights clipping. The default value is 0.25%.



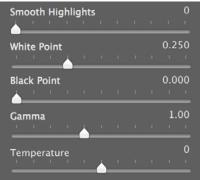
Details Enhancer – General settings

Lighting Adjustments	,	1	ļ	1	0
Lighting Effects Mode					
Details Enhancer –					

Lighting Adjustment settings



Details Enhancer – Lighting Effects Mode



Details Enhancer – More Options

- **Black Point:** Sets the minimum value of the tone mapped image. Moving the slider to the right increases global contrast. Moving to the left sets a lower minimum value, which decreases global contrast and reduces shadows clipping.
- **Gamma**: Adjusts the brightness of the midtones, which also has an impact on the overall contrast. Moving the slider to the right brightens the midtones and decreases the contrast. Moving to the left darkens the midtones and increases the contrast. The default value is 1.0.
- **Temperature:** Adjusts the color temperature of the tone mapped image relative to the temperature of the

HDR source image. Moving the slider to the right gives a 'warmer', more yelloworange colored look. Moving it to the left gives a 'colder' more bluish look. A value of 0 (default) preserves the original color temperature of the HDR source image.

Advanced Options

- **Micro-smoothing:** Smoothes out the enhancement of small details, which has the effect of reducing noise in the sky for instance, and tends to give a 'cleaner' look to the result
- Saturation Highlights: Adjusts the color saturation of the highlights relative to the color saturation set with the Color Saturation slider. Values higher than 0 increase the color saturation in the highlights. Values lower than 0 decrease it. The default value is 0.
- Saturation Shadows: Adjusts the color saturation of the shadows relative to the color saturation set with the Color Saturation slider. Values higher than zero increase the color saturation in the shadows. Values lower than zero decrease it. The default value is 0.
- Shadows Smoothness: Reduces contrast enhancements in the shadows.
- **Shadows Clipping:** The value sets how much of the shadows range is clipped. This control may be useful to cut out noise in the dark area of a photo taken in a low-light situation.
- **360° image:** Checking this option eliminates the seam between the left and right sides of a panorama viewed in a 360 degree panoramic viewer. This option is intended for a stitched panorama it should not be used for individual frames of a panorama that have not yet been stitched.

Micro-smoothing	ı	ı			2.0
Saturation Highlights	ı	ı	ı	ı	0
Saturation Shadows	ı		,	ı	0
Shadows Smoothness					0 1
Shadows Clipping	ı				0
360° image					

Details Enhancer – Advanced Options

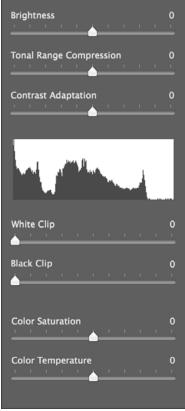
5.2 Tone Mapping Contrast Optimizer Settings

- Strength: Affects the amount of enhancement given to contrast and detail in the image. A value of 100 gives the greatest enhancement. Moving the slider to the left gives a more natural effect. The default value is 50.
- **Tone Compression**: Alters the dynamic range of the tone mapped image. Moving the slider to the right decreases the dynamic range, brightening the shadows and darkening the highlights. Moving to the left has the opposite effect, giving a more 'natural' look to the image.
- **Lighting Effect**: Controls the prominence of the shadows, affecting the overall look of the image. Moving the slider to the right brightens the shadows, giving a more 'vibrant' or surreal look. A value of zero disables the effect, leaving the shadows unaffected. The default value is 20.
- White Clip: Adjusts the amount of highlights clipping. Moving the slider to the right brightens the image and increases global contrast. Moving to the left decreases global contrast and reduces highlights clipping.
- **Black Clip**: Adjusts the amount of shadows clipping. Moving the slider to the right darkens the image and increases global contrast. Moving to the left decreases global contrast and reduces shadows clipping.
- **Midtone**: Adjusts the brightness of the midtones, which also has an impact on the overall contrast. Moving the slider to the right brightens the midtones and decreases contrast. Moving to the left darkens the midtones and increases contrast.
- **Color Saturation**: Adjusts the color saturation of the image. The greater the saturation, the more intense the color. Setting the slider to its lowest value (-10) produces a grayscale image.
- **Color Temperature**: Adjusts the color temperature of the tone mapped image relative to the temperature of the HDR source image. Moving the slider to the right gives a 'warmer', more yellow-orange colored look. Moving it to the left gives a 'colder' more bluish look. A value of 0 (default) preserves the original color temperature of the HDR source image.
- 360° Image: Checking this option eliminates the seam between the left and right sides of a panorama viewed in a 360 degree panoramic viewer. This option is intended for a stitched panorama - it should not be used for individual frames of a panorama that have not yet been stitched.

Strength				50
Tone Compression				0
				20
Lighting Effect				20
du .				_
				- 1
				- 1
	.			. 8
White Clip				4.0
	t	1	1	1 1
Black Clip				3.0
Midtone				0
Color Saturation				0
· · · · · · ·				
<u> </u>				
Color Temperature				0
- 2600 iman				
📃 360° image				
Contrast Optim	ize	r So	ett	ings

5.3 Tone Mapping Tone Compressor Settings

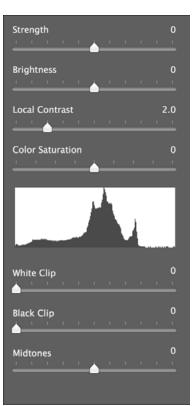
- **Brightness**: Adjusts the overall brightness of the image.
- Tonal Range Compression: Controls the compression of the tonal range. Moving the slider to the right has the effect of shifting both shadows and highlights toward the midtones.
- **Contrast Adaptation**: Adjusts the contrast in relation to the average brightness. Moving the slider to the right tends to decrease contrast and give more 'pronounced' colors. Moving to the left tends to increase contrast and give a more 'natural' look.
- White Clip: Adjusts the amount of highlights clipping. Moving the slider to the right brightens the image and increases global contrast. Moving to the left decreases global contrast and reduces highlights clipping.
- **Black Clip**: Adjusts the amount of shadows clipping. Moving the slider to the right darkens the image and increases global contrast. Moving to the left decreases global contrast and reduces shadows clipping.
- **Color Saturation**: Adjusts the color saturation of the image. The greater the saturation, the more intense the color. Setting the slider to its lowest value (-10) produces a grayscale image.
- **Color Temperature**: Adjusts the color temperature of the tone mapped image relative to the temperature of the HDR source image. Move the slider to the right for a warmer, more yellow-orange colored look. Move it to the left for a colder, more bluish look. A value of 0 (default) preserves the original color temperature of the HDR source image.



Tone Compressor Settings

5.4 Fusion/Natural Settings

- **Strength**: Sets by how much local contrast is accentuated. Moving the slider to the right tends to brighten the shadows and to show more details in the highlights. Moving to the left produces a more 'natural' effect.
- **Brightness**: Controls the brightness of the fused image by adjusting the influence each of the input photos has on the final result. Moving the slider to the right gives the overexposed photos more influence, resulting in a brighter result. Moving to the left darkens the result by giving the underexposed photos more influence.
- Local Contrast: Increases the contrast and sharpness of details in the image. Increasing local contrast may have the side effect of making noise more visible and of creating thin halo effects around strong luminosity edges. Values near the maximum tend to give a surreal look to the image. The default value is 2.
- **Color Saturation**: Adjusts the color saturation of the image. The greater the saturation, the more intense the color. Setting the slider to its lowest value (-10) produces a grayscale image.
- White Clip: Adjusts the amount of highlights clipping. Moving the slider to the right brightens the image and increases global contrast. Moving to the left decreases global contrast and reduces highlights clipping.
- **Black Clip**: Adjusts the amount of shadows clipping. Moving the slider to the right darkens the image and increases global contrast. Moving to the left decreases global contrast and reduces shadows clipping.
- **Midtone**: Adjusts the brightness of the midtones, which also has an impact on the overall contrast. Moving the slider to the right brightens the midtones and decreases contrast. Moving to the left darkens the midtones and increases contrast.





6 Preferences

The Preferences dialog is accessed from within the plug-in. The available Preference settings are:

Initial Image Settings

Start with sets whether to open the plug-in with:

- The settings as you left them the last time you used the plug-in.

or

- The default settings.

Start with	• Settings of previous session Default settings
When adjusting Preview, refresh	• when slider stops moving continuously as slider moves
Tag saved image with keyword	

Slider Behavior

Initial settings and slider behavior defaults

When adjusting Preview, refresh chooses between:

- Refreshing the Preview only after you have stopped moving the slider.

or

- Continuously refreshing the Preview as you move the slider. (Requires a fast processor. Performance improves if you zoom out to a small Preview).

Keyword Tagging

Tag saved image with keyword will save a keyword in your saved image's metadata, where it can read by Aperture, and similar applications. In Aperture, keywords can be accessed by choosing **Show Keywords HUD**, in the Window menu.

6.1 Import Options Pane

When **Import saved image** is checked, as it is by default, the image edited by the plug-in will be imported into your current Aperture Project once it has been saved. Importing the image edited by the plug-in allows you to change the edited image file format and name. **Import saved image**, however, has the drawback of moving the saved image at the top of your current project when viewed in Aperture's Browser and Viewer.

When **Import saved image** is unchecked, the image edited by the plug-in is saved "in-place", and therefore saved with the file name and in the file format Aperture used when exporting editable versions of the selected images to the plug-in. This is why the saved image shows next to the selected images when this option is unchecked.

mport options	Import saved image
	Stack with selected images
Save image as	JPEG ÷
	JPEG Quality 100
Add file suffix to saved image	_HDR

Default settings for Import options

Stacking Behavior

When **Stack with selected images is** checked, the imported image will be stacked with the source images from which is was created. New images, stacked or not, are found at the top of your current Aperture Project.

File Format

JPEG, TIFF 8-bit and TIFF 16-bit are the options. JPEG is the default.

Suffix

Will be applied to every image you save. "_HDR" is the default.

Noise & Chromatic Aberration Reduction

The options for whether to apply these filters, when you open a single image, are:

- Yes (Always apply this filter.)
- No (Never apply this filter.)
- Ask me whether to reduce (Prompt me to decide individually, every time I load an image.)

ge:	
Ask me whether to reduce	\$
No	\$
	ge: Ask me whether to reduce No

Single image default settings, for noise and fringe reduction

7 Registering the Plug-in with your License Information

To register your copy of the Photomatix plug-in for Aperture, click on the **Save** button. You will then get a window where you can enter your license key.

If the window letting you enter your license information does not show when you click on the **OK** button, this means the plug-in is already registered on your computer (which will be the case if you bought a license of Photomatix Pro Plus Bundle and already registered Photomatix Pro).

8 Getting More Information and Help

The **Photomatix Plug-in for Aperture FAQ** on the **HDRsoft.com** website has the answers to commonly asked questions related to the plug-in.

The **Photomatix FAQ** offers several tips and general information that are applicable to the plug-in, even though it is intended for the standalone Photomatix applications.

If you cannot find the answer to your question in the FAQs, you are welcome to contact us. Please refer to the **Photomatix Support** page for contact information.

Glossary

AEB Mode	(Automatic Exposure Bracketing). DSLR cameras and some compact digital cameras offer this feature. It enables you to automatically take three or more exposures in a row: one at the proper exposure, one or more underexposed, and one or more over-exposed.
Aperture Priority	In Aperture Priority mode, you select the aperture and the camera determines the correct shutter speed for the available light. The shutter speed also depends on ISO sensitivity. This is the right mode for shooting bracketed shots for HDR (refer to Section 1 for more information).
Bit	Bits represent digital data in computers. Digital Images are made of bits. A bit depth corresponds to 2^(Bit Depth) levels (e.g. 256 for 8-bit).
Bit Depth	The number of bits a file type uses to represent a pixel's color at a given location in an image.
Bracketed images	A group of photos taken with the Automatic Exposure Bracketing function of a cam- era, resulting in photos of the same scene taken with different exposures.
Chromatic Aberration	As the lens focuses different wavelengths slightly differently, chromatic aberration occurs. For example, the purple fringing you often find around edges (leaves in front of a bright sky).
Contrast Ratio	Another way to describe the dynamic range of a scene. The ratio between the darkest and brightest areas.
dSLR	Digital Single Lens Reflex camera.
Dynamic Range	In the context of photography, the total range of light intensity in a scene, from the deepest shadows to the brightest highlights.
EXIF	The Exchangeable Image File header contains information about the image, the cam- era, location, date and time and camera settings.
Exposure	The amount of light that enters a camera for the length of time the shutter is open. Exposure depends on aperture and shutter speed, as well as the camera's sensitiv- ity to light (controlled by the ISO). "Exposure" is also shorthand for a photograph or frame (a frame of film).
Exposure Fusion	Combination of bracketed photos in such a way that highlight details are taken from the underexposed photos and shadow details from the overexposed ones.
EV (Exposure Value)	A measure of exposure which is the equivalent of a stop. In the absolute sense, EV is defined as the exposure from a photo taken at 1 second, f/1, and ISO 100. In the relative sense, the correct exposure is normally 0 EV and any deviation is measured in positive or negative EV from that mark.
HDR	High Dynamic Range.

HDR Image	Strictly speaking, an HDR image is an intermediary image with 32 bits per color chan- nel (96 bits per pixel). An HDR image is the result of merging photos of the same scene taken under different exposure settings and stored in special HDR image format. The 32-bit intermediary HDR image must be processed with tone mapping for proper display on standard monitors and prints. It has become very common to define "HDR image" as the result of processing the 32-bit HDR image with tone map- ping, i.e. the tone mapped output, but this is not technically correct.
Histogram	Histograms represent brightness distribution in digital images. They help evaluate correct exposure. The y-axis represents the amount of pixels and the x-axis represents the brightness value.
JPEG	A common image file format with two primary strengths – a relatively small file size and universal compatibility. JPEGs use a lossy compression scheme and should not be edited and re-saved.
Noise	Statistical variations inherent in the sensor system cause noise. Noise is always pres- ent, but higher sensitivities and smaller sensors usually generate more noise.
Pixel	Digital pictures consist of pixels, the smallest units. Each pixel has a color that can be represented by 8 or 16 bits or as a floating-point number (32bit HDR).
PPI	Pixels per Inch. Can be used to describe the actual pixels per inch of a print. Often confused with DPI (Dots per Inch), used by color printers to print an image.
RAW File	A file containing the raw data from the camera sensor. RAW files do not have a color profile or other stylistic preferences permanently applied.
TIFF	A comprehensive image format that offers lossless compression schemes for smaller file sizes with higher quality. This format is suitable for editing and printing but not publishing on the Web.
Tone Mapping	Processing a 32-bit HDR image into an image that can be properly viewed on monitors and in prints.

www.HDRsoft.com