Oloneo
PhotoEngine

Expanding the Light

Nick Melidonis with the help of Ian Wiese investigates a new piece of photo-editing software.

I come across many different software packages which all try to capture a slice of the market. Many over-promise and under-deliver, so I'm pleasantly surprised when I see something that I feel is bordering on evolutionary or revolutionary.

Recently, I was introduced to Oloneo PhotoEngine by a photographer and colleague of mine, Ian Wiese. Ian had been playing around with the beta software and his experiments revealed some great potential.

In brief, Oloneo PhotoEngine v 1.0 (OP for short), offers HDR (high dynamic range) processing which has gained in popularity over the past couple of years. The software offers four main areas of digital image control:
• Raw file processing
• HDR merging
• HDR 'Relight', and
• HDR DeNoise

The Paris-based software revolves around a 32-bit per channel, wide colour gamut that allows users to edit tonal range, colour and exposure in real time with minimal data loss, and really quickly. Antoine Clappier, president of Oloneo and the main developer of PhotoEngine remarked, "We have devoted our entire time discussing and implementing the requests received from the beta testers, thus ensuring that PhotoEngine perfectly suits their needs in terms of features, usability and speed."

Power On

When OP is launched, you see a central browsing window. This lets you select images from your hard disk and view them as thumbnails. The program can view and use raw, JPEG and TIFF files and supports over 300 cameras. You select the images you want to use and add them to the 'Project Image Selection' box where they appear with details of the shutter speed, ISO setting and aperture.

Once images are added, you can merge them as an HDR image (HDR ToneMap), with noise reduction (HDR DeNoise), as an adjustable light source image (HDR ReLight), or simply process the raw file.

HDR ToneMap

Due to an increase in the popularity of HDR, there are many software packages for generating and processing high dynamic range images. Many HDR packages can be difficult to use, very slow and often produce garish and unrealistic results. I have reviewed Photomatix (which has become the industry standard) and HDR Efex Pro by Nik Software, so I was curious to see how OP would stack up against them.

The first thing about OP that impressed was its speed. It was blisteringly fast with an instant live view that filled the large preview screen. For example, a three image HDR bracket took a couple of seconds to process with OP, while Photomatix took over five times as long.

OP has four tone mapping methods: Auto Tone Mapper, Local Tone Mapper, Advanced Local Tone Mapper and Global Tone Mapper.

The Auto Tone Mapper only has one control and is the best for photographers new to tone mapping. This can really produce a good result without any intervention by the photographer.

The Local Tone Mapper provides more control over detail, exposure and contrast, while the Advanced Local Tone Mapper provides total control for all the variables and is the method of choice for photographers wanting the best outcome.

The Global Tone Mapper works best for images with a medium dynamic range and controls highlight and shadow recovery.

Similar to Nik Software's HDR Efex Pro, OP has added a range of presets to choose from and you can also define and save your own.

There are some useful tutorial videos for all of OP's functions, accessed from the 'Help' menu or by clicking the question mark at the top right of each HDR method box.

By the way, you can also apply these controls to a single image (rather than an HDR bracket), and all of the tone mapping methods are very good at keeping halos to a minimum.

Of all the HDR programs that I've tested, OP has the most number of options for controlling colour and also the helpful ability to add a colour tint to the shadow and highlights.
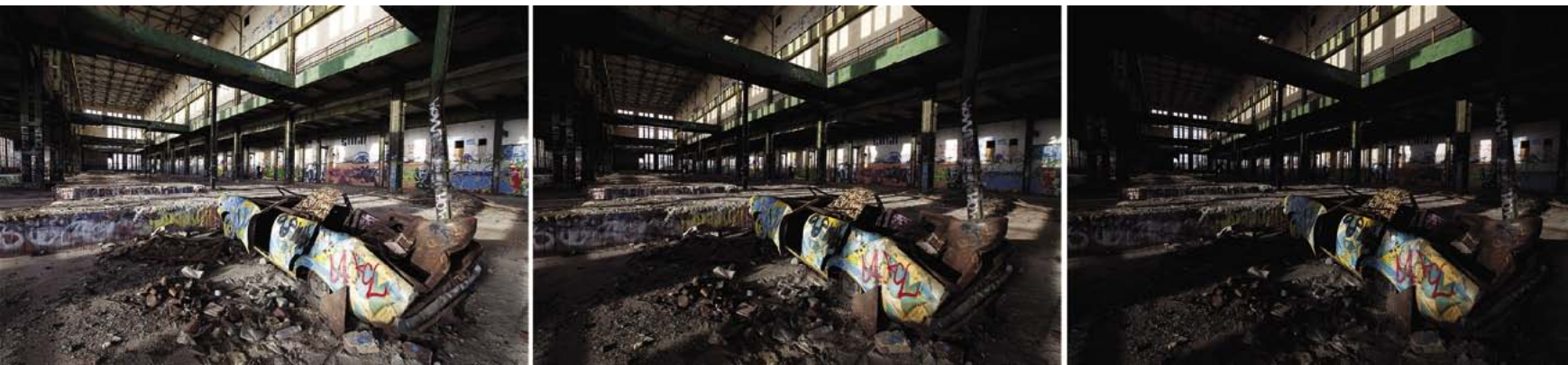
The three base exposures which were merged together in OP to produce the screen grab below.
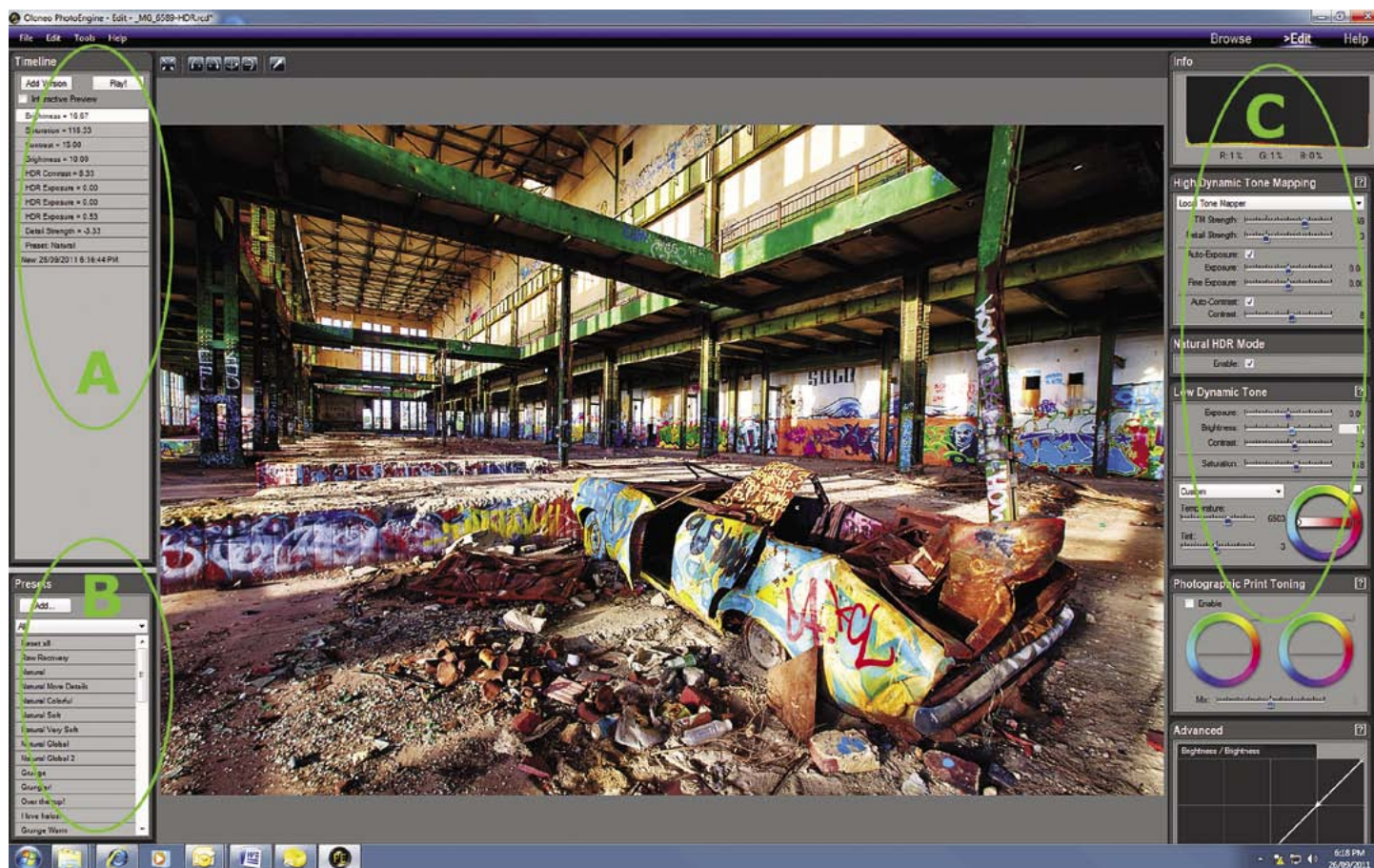
The three base exposures were blended very well by OP. In the interface, 'A' provides a timeline of the order of events you undertake in the tone mapping process similar to Lightroom's 'History' review. 'B' is a number of presets that OP provides to give you a starting point for the HDR Tone Mapping process. 'C' is the comprehensive set of Tone Mapping controls. The interface's large viewing pane with very fast, real-time changes taking place was a joy to work with.

DeNoise

The DeNoise function works well in reducing noise and preserves detail with little smoothing. If you stack a number of photos together (raw, JPEGs or TIFFs), the noise reduction works even better. This technique requires you to shoot several photos of the same image on a tripod. DeNoise can combine or stack several identical, high ISO images. Since noise is randomly placed, OP can compute which pixels are noise and which are genuine image pixels and then adjust the noise so it matches the surrounding pixels. This is a different approach to most noise reduction processes.

The raw and image processing module is quite comprehensive and includes, amongst other things, a customisable Colour Curve Equalizer with hue/saturation, hue/luminance and hue/hue curves, a brightness curve, a clever colour saturation curve, a colour toning tool and a white balance control.
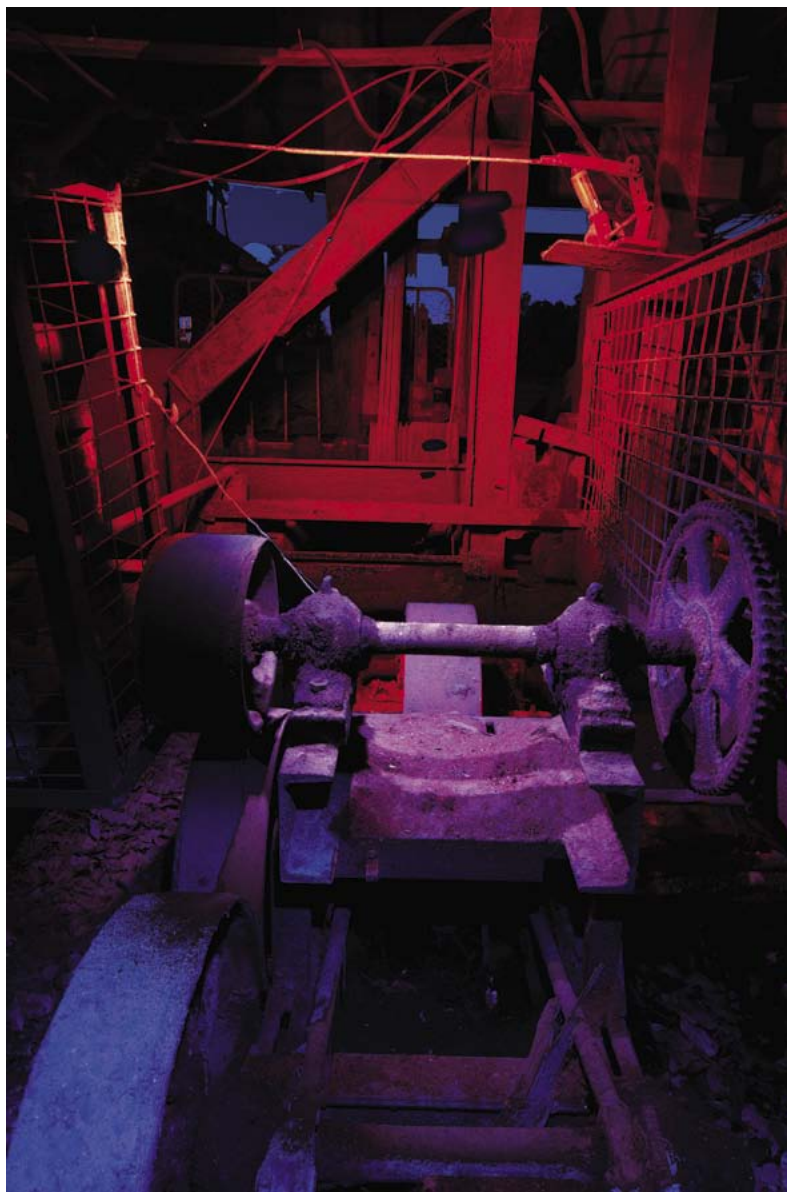
HDR ReLight

HDR ReLight, for me, is the most interesting part of OP and is what makes it well worth the cost of the software.

If you have ever been in a situation where you want to light up a scene (such as an architectural interior, a factory or a
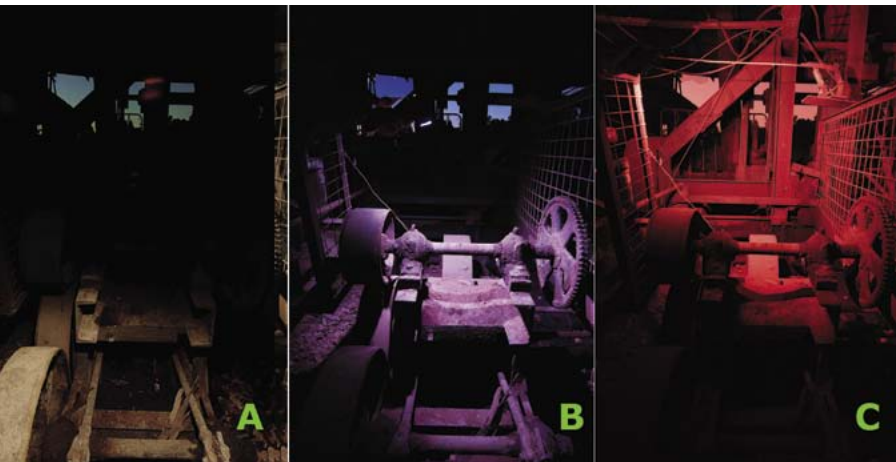
The three base exposures by Ian Wiese show the three separate lighting exposures prior to using OP ReLight.

The above image shows the final result of combining Ian's three images.

church), but only had one light source (for example, one flash-gun), then this software is for you.

Imagine that you have set your camera up on a tripod and taken a photo of the scene using the ambient light. This will give you a base exposure, but you probably have lots of deep dark shadow which need additional light.

You now leave the camera set up on the tripod and move around the scene, lighting it up corner by corner, area by area with your single light, thus building up a series of exposures, each with different lighting. You can even use different light sources for each exposure, such as a candle, a torch or switching on a different light in the building.

You now have a set of images, each with a different light source as well as the original ambient light. The magic that OP now does is to merge these images. It recognises each image separately and allows you to 'click on' each image's light source so you can adjust its strength of illumination and also its colour balance. Technically, you can mix the strength and colour balance of each light to provide a pleasing blend of illumination for the whole scene, all without complex lighting systems, fancy flash meters and a bunch of assistants. When I first saw this demonstrated, it blew me away.

HDR ReLight will:
- Allow control over temperature, tint and colour for each light source;
- Set the white balance of each light source independently;
- Auto-detect each light source's colour temperature;
- Auto-detect the ambient light;
- Provide fine control over the global image with a brightness curve;
- Allow each light source in a picture to be switched on and off for effect.

ReLight Limitations

OP suggests that the aperture, shutter speed, ISO and white balance need to be the same for each image when using ReLight, but we found that we could produce a final result without that necessarily being the case.

However, OP only allows six light source images at a time which is limiting as you may need several more images to fully light a scene. The workaround at the moment is to process six light sources at a time, and then reprocess the results.

Ian Wiese kindly provided a series of his images for this article where he lit up a sawmill and a steam train engine using a single light source (a flash) and fired it at different parts of the scene. *(See images at left.)*
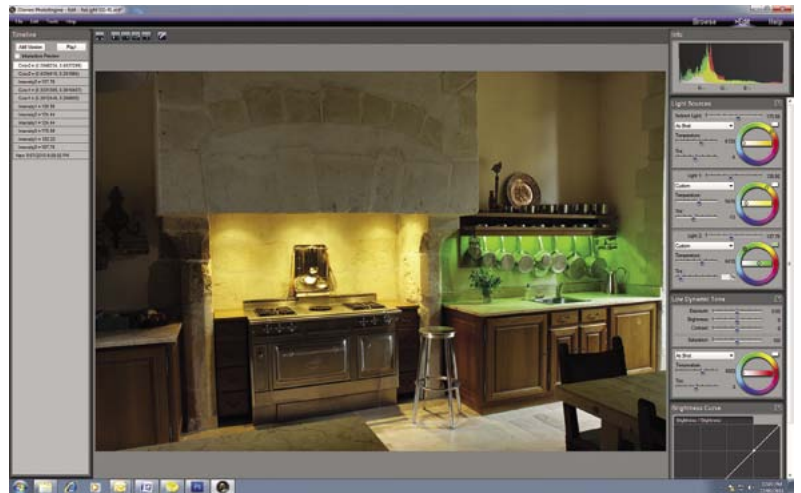
He took one shot lighting up the wheel and axle in the foreground, another shot lighting the carriage in the middle of the scene, and multiple shots lighting the background. The three images were then processed in OP ReLight and the ability to adjust the intensity of each "light" allowed Ian to even out any hotspots.

Ian decided to go for a psychedelic result, so he used OP ReLight to adjust the lighting intensity and to alter the colours. This gave an effect similar to using coloured lighting. To find out how Ian then added some fog and also his granddaughter (shot in a different location), go to his OP Engine tutorial on ***http://ianwiese.wordpress.com/oloneo-photoengine-tutorial/***.
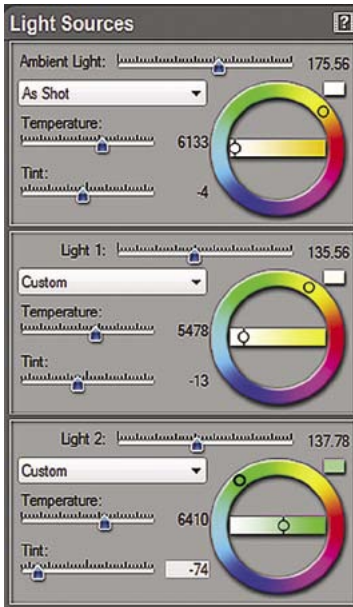
OP can also be launched from Lightroom which is handy. Select a single or several images in the Lightroom Library, then using the menu at the top of the screen, go to File > Plug-In Extras > Send Exposures to PhotoEngine. Choose your export options and click the 'Send Images' button.

OP offers a 30-day trial for interested photographers and at the time of writing, you can purchase it for US$149 on **www. oloneo.com**.

*Nick Melidonis is a Master of Photography and is a triple winner of the AIPP "Australian Professional Landscape Photographer of the Year". He was runner-up in the 2011 AIPP "Australian Professional Travel Photographer of the Year". Nick leads photo and cultural tours and takes pleasure in leading his iconic Greek Islands Odyssey Tour, now in its 13th year (see his website and ad in this magazine for details of the tour). He also offers further photographic adventures in other exciting destinations such as Cambodia (see 'Captivating Cambodia' tour on his website). He conducts seminars and workshops, including Creative Photoshop, Lightroom and Photoshop Elements workshops around Australia (see his website under 'courses'). Nick is also available as a speaker. You can contact Nick at **nick@nickmelidonis. com** or visit his website at **www.nickmelidonis.com**. Nick wishes to thank Ian Wiese for his valuable input for this article. See Ian's work at **www.ianwiese.wordpress.com**