

## **PEI Reviews the SilverFast HDR 4.0 Scanner Driver and the Olympus C-2500L SLR Digital Camera**

# **Out of the Box**

### **SilverFast HDR 4.0 Scanner Driver**

**L**aserSoft Imaging has been making SilverFast series scanner drivers for many years. These drivers, which support a number of third-party scanners, are among the most powerful and well-designed scanning interfaces around. It's a shame that many manufacturers place too little importance on the quality of the software that drives their scanners, but it's been a golden opportunity for LaserSoft. More and more scanner manufacturers are wisely leaving the writing of scanner software to SilverFast and bundling it with their hardware.

There are multiple versions of SilverFast software, but the package that looks the most interesting is SilverFast HDR 4.0. "HDR"—for high dynamic range—is perhaps a less-than-accurate term, but the application does work with scans or captures from digital cameras that contain more than 24 bits (8 bits per color). Such high-bit scans allow users to apply color

and tonal corrections to end up with the best possible 24 bits of color without data loss.

With SilverFast HDR, users can apply corrections to high-bit files with even more options and productivity than Photoshop offers, as we will see. (See June *PEI* 1999 for a tutorial on using Adobe Photoshop 5.0 on high-bit scans for color and tonal corrections.)

SilverFast HDR software is ideal for those who have scanners or digital cameras that can provide more than 8 bits per color, but do not have SilverFast-supported scanners. This is certainly true for users of high-end digital cameras that capture higher-bit files. For them, LaserSoft offers SilverFast DC (digital camera), although the HDR package will also work. According to LaserSoft, the following companies manufacture scanners that support the saving of high-bit files: UMAX Technologies, Agfa Corporation, Linotype-Hell, Epson America Inc., Nikon Corporation, PFU (Xfinity), Howtek Inc., Microtek Lab Inc., Imacon Inc., and Polaroid Corp. (with the new SprintScan 4000).

With SilverFast HDR, users can read high-bit files and process the data as if they had access to the original image on a scanner. Among the application's tools are Auto-Adjust, Histogram, Gradation Curves, Selective Color Correction, Unsharp Masking, Color Separation, CMYK-Preview, and a setting for output size.

One advantage of scanning in high-bit mode and passing the raw scan to SilverFast HDR is that the operator need only loosely crop the prescan and set the resolution required. No other training or specialized knowledge is necessary to operate the scanner.

In production environments where there may be many skilled users but only one scanner operator, SilverFast HDR software allows that operator to produce more scans per hour, since no correction work needs to be carried out at this stage. The operator simply sends the raw, high-bit scans to others in the network and continues scanning.

In this workflow, the scanning station does not require costly monitors or color calibration devices, because no critical color work is to

be done there. For users with less than ideal scanning software who have the capability to save high-bit files, this is an excellent feature.

SilverFast HDR, like the other SilverFast software, has virtually every control imaginable for image correcting. The new ScanPilot feature shows the various correction tools in a suggested order, which allows users to process files with the single click of a button. The settings can be individually turned on or off and set for specific uses. ScanPilot can be disabled to allow manual corrections.

The Auto-Adjust function works quite well. For many users, this tool will produce quite acceptable results without other adjustments. Auto-Adjust analyzes highlight and shadow areas and sets each end of the tone scale accordingly. It ensures these areas are neutral, and the onboard Histogram updates to show the corrections. You can control the behavior of the Auto-Adjust as necessary. For example, you could override Cast Removal for images

such as sunsets that need a particular color cast throughout.

The clipping values of highlight and shadow in Auto-Adjust can be specified as well. You can adjust the Histogram manually while looking at the preview (see Figure 1), or choose an image type (such as Skin Tone or Landscape), which will affect the behavior of the Auto-Adjust analysis. Like Photoshop, SilverFast has Eyedropper tools for setting highlights and shadows. A gray balance Eyedropper is provided for setting neutrals.

One excellent feature of the SilverFast Eyedropper is its ability to “find” the brightest and darkest points in an image when you hold down the command and shift keys. A red circle with a crosshair pinpoints the area, so targeting it with the Eyedropper is a snap.

The Gradations tool (curves) in SilverFast is especially powerful. You can manipulate the curve by clicking and dragging curve points, entering numeric values, or using the various sliders for contrast,

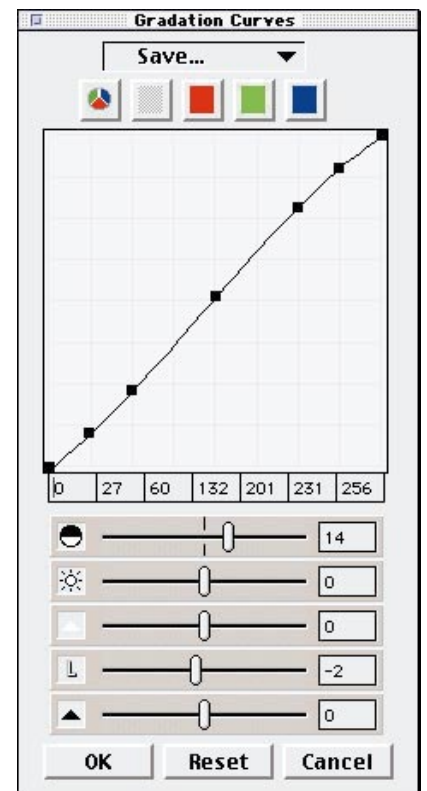


Figure 2. The Curves dialog with settings that were automatically applied by SilverFast using the Auto-Adjust function.

brightness, highlight, midtone, or shadow (Figure 2). Naturally, individual color channels can be selected for precise color corrections, and all the various settings can be saved to disk and reused on other images. Not only that, but saved Photoshop curves can be imported into the SilverFast curves dialog!

The Global Color Correction tool has sliders, numeric input fields, and a color wheel that can all be used to alter the overall color balance of the image (Figure 1). To specify a tonal area for correction, you click on one of four small icons on the top of the interface to affect 25%, 50%, 75%, or 100% of the tonal scale. Thus, highlights, midtones, three-quarter tones, or the entire tonal range can be targeted for color corrections.



Figure 1. The histogram dialog appears in the lower left corner, along with the SilverFast main interface. Notice the ScanPilot option along the upper right of the interface and the densitometer palette as well. The interface for the Global Color Correction palette is open in the lower right corner.



Figure 3. In the Selective Color Control, you can alter the colors by simply clicking on a particular color (in this case, the yellow square). A pop-up menu is then presented with preset options. I also altered the red and blues in this image, as you can see in the fields of the color matrix.

Selective color corrections are also available in the Selective Color dialog (Figure 3). This tool allows only certain colors in an image to be altered, while leaving others untouched. The interface takes some getting used to, but once you understand the basic idea, you can fine-tune colors within colors.

Colors within an image can be selected by clicking on the preview. They are then placed in the appropriate matrix in the interface, ready for editing. Hue (the color), saturation, and luminance (lightness/darkness) can be altered using the sliders marked HSL or by entering numeric values in the matrix fields in the interface. Up to 12 colors can be corrected using the new 12-matrix color tab for even more subtle color within color corrections. These tools are vastly more powerful than

Photoshop's Selective Color tools.

SilverFast also offers an Expert Dialog (Figure 4), which in one dialog box shows the various corrections specified in the individual controls. The settings can be edited or refined in this palette as necessary.

Setting color and density would be a chore without a good densitometer, and SilverFast has a fine tool for this, which supports RGB, HSL, CMY, LAB, LCH and CMYK and has a gamut warning as well. Before-and-after values are provided and the color spaces can be easily toggled by clicking on the arrows. You can place a measurement point in the preview window by pressing the shift key and clicking in the image. I only wish the software

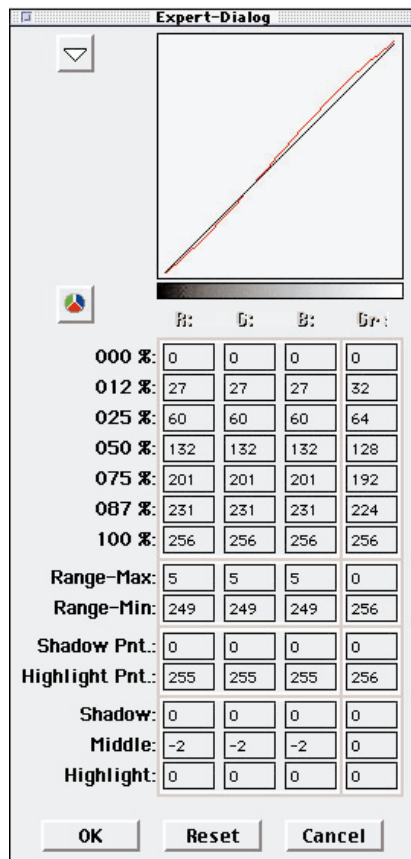


Figure 4. In the Expert Dialog, all corrections conducted on the image can be examined and updated in one place.

could support multiple measurement areas as Photoshop does with its four available sample points.

The powerful sharpening features in SilverFast provide many more options and controls than Photoshop. In Figure 5 (page 49), notice the Shadow Soft checkbox, which allows a softening effect to be applied to darker regions while sharpening the rest of the image. All of the settings are updated in the high-resolution preview, providing excellent visual feedback. The software is fully ICC/color management savvy to ensure that SilverFast previews perfectly match Photoshop 5.0 previews. It can even embed ICC profiles in saved files.

The version we tested can create scanner profiles with the supplied IT8 target to generate custom scanner ICC profiles. An excellent chapter in the users manual covers all the various color management features. In fact, the manual is especially clear and has an excellent addendum on resolution and high-bit editing, with documentation on all the key commands. Moreover, the software has live, onboard help displayed at the bottom of the main interface.

One of the most impressive features in this new package, and one that adds great productivity, is the Job Manager. In a nutshell, it's a batching feature built into SilverFast that allows the user to process multiple jobs unattended. With the HDR version, this provides some interesting possibilities. For example, you can actually load a low-resolution version of the HDR scan into SilverFast, go about the correction process using the tools described above, and then apply the corrections to the high-resolution files at a later time—all unattended!

The same frame representing a



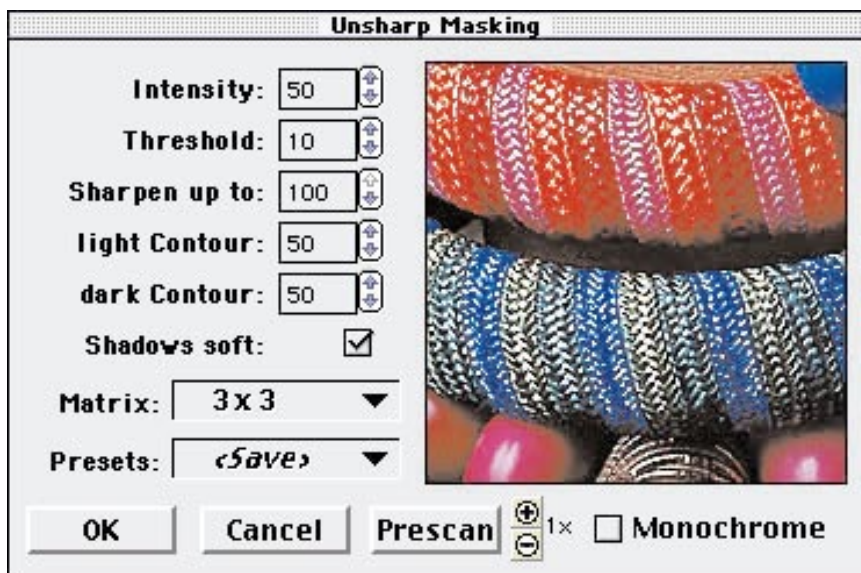


Figure 5. The interface for the Sharpening controls. A true full-resolution preview is provided and updated as the controls are altered.

job can be entered multiple times for different processing options. You can correct a single image then

convert one version to CMYK using an ICC profile while creating another version that remains in

RGB and is processed. You can load any saved correction settings created in SilverFast and apply some or all of them to any number of files set-up in the Job Manager window. The Job Manger is easy to configure, extremely powerful, and an overall workflow godsend.

Like its siblings, SilverFast HDR 4.0 is a powerful yet easy-to-use product with excellent productivity capabilities. For users who are not happy with their current scanning software, this product is a must-have. The various SilverFast versions range in price depending on the scanner supported. The HDR version is available for both Macintosh and Windows systems. Suggested retail prices start at \$335.

—Andrew Rodney

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## Olympus C-2500L SLR Digital Camera

Olympus has always been in the forefront of consumer and prosumer digital cameras development. The D-600L and the later D-620L were truly innovative cameras, with many features no other desktop digital cameras provided. They came with true through-the-lens viewfinders and flash mounts, had excellent ergonomics, and captured large files.

Likewise, Olympus's newest camera, the C-2500L SLR, has innovative features that put it at the top of the list in desktop cameras. In fact, the C-2500L SLR may be the first camera in its price range to lure professional photographers who would otherwise consider only professional digital cameras that cost much more.

Let's look at some of the unique features that make the C-2500L SLR stand out from the rest. Using the exclusive Olympus TruePic Technology, the  $\frac{2}{3}$ -inch progressive RGB CCD captures true 1,712x1,368-pixel resolution to produce 6.7MB files. This adds up to accurate 24-bit color (16.7 million colors) that can be output at 8x10 inches or larger with photorealistic quality on a photo-quality printer.

The C-2500L provides 95 percent centered SLR viewing, a feature seldom found on desktop cameras, and yet a critical one. The Olympus aspherical glass 3X SLR f/2.8-3.9 optical zoom lens (9.2-28mm) is the 35mm film equivalent of 36-110mm; the built-in macro focuses to 4 inches. There are several compatible

Olympus lens accessories, such as the optional B-28 (29mm equivalent) wide-angle lens and the 1.45X telephoto converter lens (160mm equivalent). The autofocus lens focuses extremely fast, and the software allows users to select three autofocus ranges (0.8 inches to infinity, manual focus from 12 inches to infinity, and selectable quick focus settings from 15 preset ranges).

Other features include fully automatic or manual exposure, white balance, and a built-in, five-mode flash. The flash has red-eye reduction and fill flash, as well as a Slow Synchro Flash Mode for shots requiring long exposure with fill flash—and all with TTL exposure. A hot shoe is provided for other flash units, although Olympus makes an

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This tack-sharp image of my dog 'Tosh' was shot under available light and shows amazing detail. Olympus has raised the bar several notches with the C-2500L SLR.

optional FL-40 flash that's designed from the ground up for use with the D-2500L SLR. The FL-40 features TTL flash using either the first or second curtain flash sync, exposure control of +/- 2 steps in 1/3-step increments, and the ability to zoom and match the focal lengths of the C-2500L 9.2-28mm lens.

The C-2500L has a very nice 122,000-pixel TFT LCD display for viewing images and the onboard menu system. Images can be enlarged 2X or 4X for close inspection. The camera has an amazingly large 16MB memory buffer that can store up to five photos between shots. The burst mode allows five shots to be taken at every resolution in less than three seconds. Images can be stored internally or on Compact Flash or SmartMedia, which affords excellent flexibility.

The camera's selectable center-weighted or five percent spot

metering provides precise exposure control. Users can record their images in no fewer than five modes and five resolutions, including uncompressed, full-resolution TIFF files (the ultimate in quality). For power, the camera ships with Olympus Ni-MH batteries and a charger; an optional AC adapter is available. The package also includes a 32MB SmartMedia card.

In short, this camera has every option and feature you can imagine and produces image files of excellent quality. It's lightweight and a joy to shoot because the controls and ergonomics are well thought out. Here's a desktop prosumer digital camera I can finally give up my small point-and-shoot film camera for. The C-2500L camera retails for \$1,499; prices for optional lens attachments begin at \$149. ◀

—Andrew Rodney

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