

### Managing Your Digital Camera's RAW Files

It's a JPEG world, the most common image format used these days with digital cameras. It is an acronym for Joint Photographic Experts Group (JPEG). A lot of cameras shoot them. Dozens of professional software packages support them. Heck, your Grandfather probably knows what they are.

Not so for the RAW format-the uncompressed, unprocessed data file captured by the camera. While gaining in popularity among quality-minded digital photographers, RAW is not as universally supported as the JPEG. Plus, each camera manufacturer's RAW format is different. This makes it difficult to build a RAW-friendly workflow. Shooting a RAW format photo is the easy part. Without careful planning, however, managing RAW photos efficiently and effectively can be challenging but it allows the most post-processing flexibility.

Fortunately, using a Macintosh / Windows based computer and some enhanced software from software developers means browsing, converting, and processing RAW photos is not the chore it once was. In fact, with the right applications loaded onto your hard disk, the handling of RAW files can be effortless.

### Converting the RAW Format

To open a RAW photo in Photoshop for hand-off to a client or publication on the Web, it has to be converted into a standard format such as JPEG or TIFF. Converting doesn't do away with the original RAW photo; instead, after the RAW photo's data is processed, a new version of the photo is created in the selected format.

To maximize the RAW formats benefits, look closely at the conversion capabilities of the camera manufacturer's software, as well as the software from innovative third party developers.

RAW files are generally maker/model specific and a few have started to gain visibility as formats, such as Nikon's 'NEF' and Canon's 'CRW', Kodak 'DCR', etc. The term 'raw' is used in essence, to take the exact output of the camera CMOS/CCD device and store it unaltered - usually in a format based on the TIFF format. Being unaltered, this format has some popularity as it is effectively a digital negative.

RAW is simply pixel data as it comes directly off the CMOS/CCD, no in-camera processing is performed. Typically this data is 8, 10 or 12 bits per pixel. The advantage being that file sizes are considerably smaller than an equivalent TIFF file. The image has not been processed or white balanced which means you can correct the image, and it's a better representation of the "digital negative" captured. The disadvantage is you can't open these image files with a normal photo package. The main advantage of a 12-bit per pixel data is when you might need to make some major corrections to the white balance, exposure, and color. During the processing of an image, you lose bits of image data due to data clipping. That is the more bits you have from the start, the more data you have with your final corrected image.

TIFF files. These give lossless compression, i.e. they decompress to the same quality as when last saved as no information is discarded in the save process. The format is an open standard, allowing for a degree of customization (e.g. some 'raw' files) and for custom 'tags' to be created to hold information. It solves the lossy compression issue but are still converted to 8 bit inside the camera. And most of the time, TIFF images are larger than the raw files but do not have the other benefits of raw. An 8 bit in camera processed TIFF file is only slightly better than a high-resolution JPEG.

JPEG files. These are the most common format for files with EXIF data - especially for non-pro level digital cameras. This is because the compression achieved allows more efficient use of limited storage available in the camera. This comes at the cost of 'lossy' compression, that is information is discarded in the compression process during saving the file - this information cannot be recovered later. An added factor to consider is that every time a JPEG is re-saved the compression occurs and further information is discarded, eventually leading to visible degradation of the image.

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### Product News

#### **SilverFastDCPro Release dedicated to Raw Data Enhancement of High-End Digital Cameras.**

LaserSoft Imaging AG, the developer of *SilverFast* Professional Scanner and Digital Camera Software solutions, recently announced the immediate availability of *SilverFast DCPro*. The *SilverFast DCPro* delivers lighting-fast, easy access within Photoshop – to Raw image formats ranging from Professional to Midrange digital cameras from Kodak, Minolta, Canon, Fuji, Olympus, Nikon and Sigma. It is available as a Stand-Alone application as well as a Plug-in that works with Photoshop 7 software.

*SilverFast DCPro* allows photographers to directly modify the original data captured, producing images with superior high quality, white balance and the maximum amount of detail. Raw images which are often called a „Digital Negative“ are mostly preferred by professional photographers. This is due to the maximum dynamic range and untouched details they contain. Accessing the raw image before conversion into formats like JPEG and TIFF allows users to adjust the color balance, saturation, smoothness and sharpness instead of using the camera's automatic settings.

*SilverFast DCPro* is a high-end Digital Camera Software, that has been designed specially for the needs of photographers. It combines the powerful functionality of *SilverFast Ai* with the unique Virtual Light Table - DC VLT. The light table is a work-base that no photographer wants to miss and who likes to organize, manage and resume images in an easy way. It also brings sophisticated noise removal - GANE, a tool for eliminating noise and grain while preserving image details and White Balance feature. Beside the ingenious magnifying functions, the user profits also from Presets adjustable Graphical User Interface (GUI) as well as the color temperature and the Red-Eye-Correction, all takes place using true 48-bit mode. Each *SilverFast DCPro* ships with an IT8 Calibration & ICC Profiler including the Online Quick Time Movies Training - as a guide tutorial about *SilverFast DCPro*.

*SilverFast DCPro* supports Raw Data Format of professional Digital Cameras: Canon, Minolta, Nikon, Olympus, Kodak, Fuji and Sigma. The conversion of the raw data format takes place as a time-saving background process and the result is being stored automatically. Hence, the user can re-open already converted files without time loss. For each supported camera, default and custom raw image settings are available and can be adjusted and saved between sessions. With the ability to apply settings across multiple files from the same photo shoot, the result is increased quality in the final image,

less after-import manipulation, and greater efficiency in the workflow for the photographic or graphic professional.

"We made *SilverFast DCPro* available to the digital camera market due to customers request, so they can view and work with raw camera formats in a stand-alone application as well as in Photoshop; we are proud that customers, for the first time, don't have to read an extensive manual, since QuickTime movies in each dialog explain all available functions" stated *Karl-Heinz Zahorsky, President of LaserSoft Imaging AG / LaserSoft Imaging Incorporated*.

A complete list of camera models and proprietary raw formats supported is available at:

<http://www.SilverFast.com/show/dc-cameras-raw/en.html>.

#### Pricing and Availability

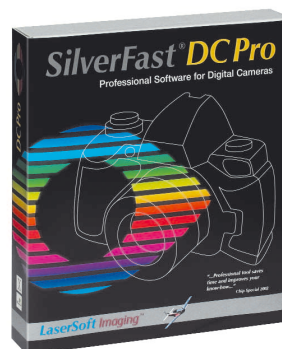
*SilverFast DCPro* demo software can be downloaded today at: <http://www.SilverFast.com/show/SilverFast-dcpro/en.html> and can be bought at an Introductory Price of Eur 299.00 (US\$ 299.00)

#### The advantages in a nutshell:

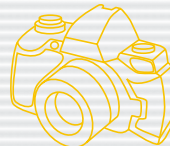
- ☒ **Reliable:** Clearly defined professional high-end end raw data software enhancement with Virtual Light Table functionalities. *SilverFast DCPro* is the first software to offer online Quicktime Movies so users have no need to read an extensive manual.
- ☒ **Flexible:** Supports wide range of high-end digital cameras available today and still more are coming.
- ☒ **Are you ready for Raw Data with professional enhancement? We are!**

### Sales & Marketing Tools

Explore our *SilverFast DCPro* high-end functionalities  
*SilverFast DCPro* Evaluation Copy now available!



Distributors, Dealers and Press Media can now benefit with our *SilverFast DCPro* Evaluation Copy. Please send your request to [marketing@SilverFast.de](mailto:marketing@SilverFast.de). Get your copy now!



### Customer Reviews: The Swiss army knife of scanning

Epson's 3200 Pro delivers lots of features and high quality at a low price

By Ira Gold

Over the past 30-plus years I have worked in scanner development, testing and otherwise playing with more scanners than I can count, but the Epson 3200 Pro is unique. Upon unpacking this fairly ordinary-looking scanner I wondered whether it would live up to Epson's claims of greatness. However, as I use it I gain more and more respect for this new scanner.

Epson left nothing out on this scanner. It is ready out of the box to scan reflective copy, but if you want to scan transparent originals it requires only a quick changeover—quick being measured in very few seconds. The bundled transparency carriers include 4x5, 2 1/4 (6cm), 35mm strips, and 35mm mounted. I was able to find carriers that fit every negative or positive transparency I had. You can connect the scanner using either a FireWire (IEEE-1394) or USB 2.0 interface to your PC or Macintosh.

For everyday scanning such as OCR, a quick scan for FPO, or a color copy, the "one-touch" button and its software help make this a very versatile machine. What turns the 3200 into a productive professional scanner is the LaserSoft *SilverFast SE6* ([www.silverfast.com](http://www.silverfast.com)) software. This software is simple to use and automates many of the scanning decisions for color balance and sharpening. The scanning menu includes a selection of color negative profiles and general profiles for landscape, skin tones, evening, and more. There are also available presets for unsharp masking and other sharpening settings. With the 3200 and *SilverFast* you can scan up to 10 frames of unmounted 35mm film—setting crop, size, resolution, color, and sharpening for each frame and then scanning the entire batch automatically.

More details you can find on:

[http://ep.pennnet.com/Articles/Article\\_Display.cfm?Section=Articles&Subsection=Display&ARTICLE\\_ID=183119](http://ep.pennnet.com/Articles/Article_Display.cfm?Section=Articles&Subsection=Display&ARTICLE_ID=183119)

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### SilverFastAi 6 - for Minolta Dimage Scan Multi PRO

By Peter Wolff

The *SilverFastAi* scanner software from German LaserSoft Imaging AG is now available for the Minolta Dimage Scan Multi PRO (Multi PRO) and this is very good news for current and coming owners of the Multi PRO film scanner. This article is a combined review of and tutorial for the *SilverFastAi 6* scanner software with special focus on the Multi PRO film scanner.

The Multi PRO scanner is capable of scanning a number of film formats, including 35mm and medium format up to 6x9cm. When it was introduced a while back, it was highly praised, but the software had a few problems when dealing with negatives. A group of users asked Minolta to look into the problems and Minolta answered their "prayers" and updated the software for better negative handling.

I myself did venture a bit into scanning negatives as well, but didn't manage to produce results that I was satisfied with. It's a long story, some of it can be read on this link:

[http://www.photographical.net/minolta\\_pro\\_neg.html](http://www.photographical.net/minolta_pro_neg.html)

While other scanners in the same league such as Nikon 8000 ED and Polaroid SprintScan 120 were supported by third party scanner software (and often bundled with different software solutions), the Multi PRO was only supported by the Minolta software itself - AND of course the excellent and cheap VueScan software which many users adopted I believe.

But this has now changed! The *SilverFast Ai 6* software now supports the Multi PRO scanner. This means that users of the Multi PRO now has an alternative and professional software package to turn to. Having more software options is a real bonus to any scanner user.

I've tested the *SilverFast Ai 6* for the Multi PRO and this and coming articles will describe my impressions as well as show examples of how to use the software.

This article will focus on describing the products, its features and the setup process as well as show some initial scanning examples. I will not, however, dig into scanning negatives here. My review is done by showing examples of how to use the software. I'm not going to show all the tools and options - far from - but I'll give you some basic ideas of how to use the software. In later articles I'll demonstrate further options and tools.

*SilverFast Products*

"*SilverFast*" is actually the name of a number of related products from LaserSoft Imaging AG:

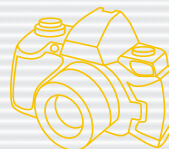
*SilverFast Ai* : Software for scanners. This is the package reviewed here.

*SilverFast SE* : Software for scanners - the light edition.

*SilverFast DC* : Software for digital cameras.

*SilverFast HDR* : Software for editing RAW 48bit data





### Macworld CreativePro Conference / Expo Highlights

Macworld CreativePro Conference & Expo featured 125 educational sessions taught by 131 industry experts covering audio, design, publishing, Mac skills, music, photography, video and Web design. Educational opportunities ranged from feature presentations to half-day labs, from two levels of conference sessions to birds of a feather sessions to tutorials. Popular sessions included:

- Chuck Weger's Mac OS X for Design and Publishing Professionals – Is it Soup Yet?
- Ben Waggoner's QuickTime Compression Secrets
- Bert Monroy's Photoshop Digital Creation: Uncanny Realism
- Adam Engst's Getting Started with iPhoto
- William Levin's Flash Cartoon Animation
- Dave McFarland's Dreamweaver MX Power User Tips and Tricks
- Jason Davies' Audio Restoration and Enhancement of Existing Content

The expo floor featured 133 companies displaying the latest technology for creative professionals, including Apple, Avid Technology, Canon, Corel, Creo, Epson, Harman Multimedia, Hewlett-Packard, Nikon, Sony Electronics, and Xerox.



### Inside



Dr. Thomas Turowski  
LaserSoft Imaging AG

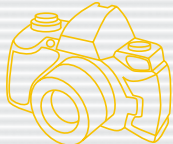
As the Product Manager, Dr. Thomas Turowski has already helped improved the organization in the field of Quality-Testing and Support. He works with the development and customer support, by implementing requirements and strategy as well as taking a lead role in the product change and problem management tasks. This is to ensure that product initiation, development, testing quality and delivery processes for all external/ internal commitments and expectations against the products are met. Dr. Turowski has brought 14 years of solid experience in the computer industry to LaserSoft Imaging since joining us May 2003.



Paul Buckner  
LaserSoft Imaging USA

Since April 2000, Paul Buckner has helped create Sales and Marketing channels for the Americas, as well as being the Spokesperson at over 30 trade shows in the last 3 years.

"The amazing and unexpected part of this job has been meeting so many *SilverFast* users that want to treat me as a family friend, because of the critical part of their workflow we play. Our users are by far the most loyal and appreciative people I have ever worked with after 10 years in the computer industry", stated Paul Buckner. "I look forward to meeting more of you at Photoshop World and Photo Plus East in the coming months."



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I want to have further information on:	Date: _____
Please, send the <i>SilverFast</i> News to the following people (email address):	
Here is my story (please add pictures):	
I have the following suggestions/comments:	
Others:	