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Test Report ✓

The Microtek ScanMaker i900

by David B. Brooks

Professional Flat-Bed Scanner Features At A Consumer Price

Microtek may not be the most familiar name in digital photography, but the company offers the widest selection of scanner models available. Microtek has also been in the business of making scanners for about as long as they have been available in the consumer market. The one reason you may not be as aware of Microtek as some other product names is that until a short time ago many of the scanner models Microtek developed and produced had other brand names on them, such as Agfa and Polaroid. The most recent Microtek model, the ScanMaker i900, is a flat-bed that combines features from both consumer and professional models of the immediate past.

Unlike any other brand flat-beds, the film scanning capability of this ScanMaker is based on Microtek's exclusive EDIT (Emulsion Direct Imaging Technology), which means the film scanning is configured like a dedicated film scanner without any glass between the film and the scanner's sensor. This is accomplished by means of a separate drawer below the CCD array that supports SnapTrans glassless film holders for all film sizes from both 35mm slides and filmstrips, to 120 and 4x5, as well as 8x10. All formats have a glass support

under the film maintaining the direct emulsion to sensor feature.

The primary feature that makes this ScanMaker affordable is its 24,480-element Sigma Six CCD. This six-line CCD sensor array, in addition to making the i900 affordable, also makes it an exceptionally fast scanner for the high optical resolution of 3200/6400dpi that it supports. This quickness is further supported by both a six-pin FireWire connection and USB 2 for users who have computer support for either of these high-speed interface modes.

The ScanMaker i900 software bundle is also generous, including Adobe's Photoshop Elements 2.0, LaserSoft's SilverFast Ai 6 to complement Microtek's ScanWizard Pro, as well as ABBYY's FineReader Sprint OCR. The i900 also comes with both print and film IT-8 references, which can be used with Microtek's ICC profiler or SilverFast software to custom calibrate and profile the scanner.

Using The Microtek ScanMaker i900

A unique advantage of the ScanMaker i900 is being able to scan prints to 8.5x14" and all film sizes from 35mm to 8x10, which is a testing challenge that made me really dig in my files for the



necessary diversity of images for testing. But that also makes it fun and interesting to see what the scanner can do with such a broad range of original material. This diversity has an added advantage, which is the glass carrier for 8x10 and odd sizes like the many panoramic film formats. It can also be used to scan a number of frames of film of all sizes for making "contact sheets" for proofing and filing purposes.

My digging into files revealed some 3M Color Key cells. This material was made for proofing half-tone litho film that is the second step in analog color separation, used in offset printing plates for a four-color press. I used 3M Color Key to create special effects in the days before we even imagined what is now possible with Photoshop. The 3M Color Key cells are actually made up of separate thin film sheets, each in one color and then sandwiched together in registration to result in a large multicolored transparency. Because the resulting

colors do not correspond particularly to the values you get scanning normal photographic color film, they can be a real challenge to color correct as part of the scanning process.

Going to the next size down, 4x5,

most of my library in this format is black and white. I immediately found that the new Microtek ScanMaker i900 is particularly well suited to scanning black and white, and the good results kept me stuck on this part of the test like a

broken record. But my time on this format was not that long because I got so many images scanned even when setting the output size to 16x20" at 300dpi at 16 bits—the scanner is that fast.

Then when I moved on to scanning various 120 size film formats, I began with more black and white film to confirm the good experience with 4x5. I was also able to obtain a full range of tones that ideally represented the image values, including good shadows and highlights. However, the only physical shortcoming I found in this unique and advantageous film scanning design cropped up because the SnapTrans film holder for 120 supplied with the scanner has 6x9cm size film frame windows. They are not adjustable to support and mask the smaller 6x7, 6x6, and 6x4.5cm 120 film formats.

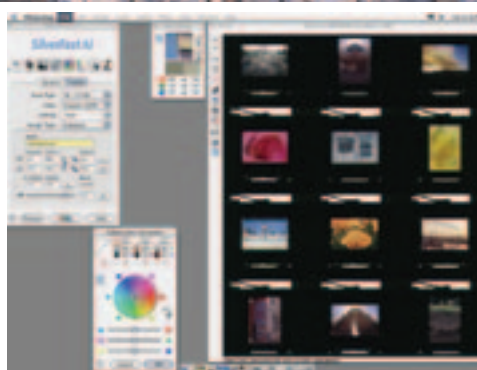
After satisfying myself of good black and white 120 film scanning performance I moved on to color 120 film images. With color I was equally impressed, but for a very different reason. The Microtek ScanMaker i900 sensor apparently has an advantage in its response to color image information by pulling up and recording more of what is available in the film image. This enhanced color sensitivity actually makes any color correction and adjustment, like removing a color cast, easier and more effective with SilverFast.

Moving on next to scanning color slides, the SnapTrans holder is a really distinct advantage because it holds 12 slides, all of which are easily loaded and then removed after scanning. Even compared to dedicated 35mm scanners, the i900 reduces the physical effort involved in loading and removing slides, reducing the frequency of the task to a third and making the entire scanning task noticeably more efficient. I also obtained the same color response advantage I experienced making 120 scans with 35mm scans. All of the above made the entire film scanning capability a positive one, establishing for me the value and versatility of this new Microtek scanner.

In addition, I should not forget reflective or print scanning. The unit has an advantage with a 3" longer scan surface compared to most other flat-beds in the consumer scanner field. With both



(Above) I don't know how many times I have tried to scan this image of a wooden wall in Teluride, Colorado, and failed because the Kodachrome was both underexposed and excessively blue from skylight at high altitude. But I attempted one more time and the Microtek ScanMaker i900 and SilverFast allowed correcting for the bad exposure and color cast while preserving the colors in the subject that inspired me to make the shot. (Right) The LaserSoft SilverFast Ai 6 software scanner driver for the Microtek ScanMaker i900 complements the scanner performance features very efficiently. If you choose, you can set SilverFast to batch mode and crop, correct, and adjust each image individually one after another without pause. Then, with one click, the software and scanner processes all 12 images, placing a file either in Photoshop or on your hard drive, depending on your choice, for each scan.



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Technical Specifications

Bit Depth/Optical Density: True 48-bit color/4.2 max. optical density

Optical Resolution: 6400x3200dpi

Max. Interpolated Resolution: 25,600x25,600

Scan Area: 8.5x14" Reflective; 8x10" Film/Transparencies

Interface Type: FireWire and Hi-Speed USB

Platforms: Windows and Macintosh

Included Software: LaserSoft Imaging's SilverFast Ai 6 (PC/Mac); Adobe's Photoshop Elements 2.0 (PC/Mac); Adobe's Photoshop Album SE version (PC); Microtek's ScanWizard Pro (PC/Mac); Microtek's Scan, Copy, Email, OCR, Scan-to-Web utilities (PC/Mac); Microtek's LANShare: LAN scanner sharing utility (PC); ABBYY's FineReader Sprint OCR (PC/Mac); Kodak's Digital Science Color Management

(PC/Mac); Ulead's Photo Explorer (PC/Mac); Adobe's Acrobat Reader (PC/Mac)

Included Hardware: FireWire and Hi-Speed USB cables; power adapter

Included Accessories: SnapTrans film holders: 35mm slides (for 12 slides), 35mm filmstrips (for 12 frames), 4x5" (for two); medium format (for four), and additional glass tray for scanning film transparencies up to 8x10"; Kodak reflective and transmissive IT-8 targets

Optional Accessory: Additional SnapTrans film holders

Image Sensor: 24,480-element Sigma Six CCD

Scanner Weight: 24.7 lbs

Scanner Dimensions: 23.6x15.2x6.3"

Estimated Street Price: \$599


color and black and white prints, the print scanning experience was as easy and quick and produced as fine a quality results as with film.

Evaluation And Conclusions

The Microtek ScanMaker i900 offers users an unusual combination of hardware features in a dual purpose (print and film) flat-bed scanner, including their EDIT glassless film scanning with convenient and efficient to use SnapTrans film holders, which support scanning all standard film sizes. The scanner also has very high operating specifications such as 6400x3200 optical resolution, 4.2 D-max, and 48-bit depth A/D conversion. Additionally, Digital ICE Photo Print Technology, as well as a very complete and generous software bundle at an estimated street price of \$599, makes it an exceptional value.

But this positive experience begs the question: is it comparable to a more expensive scanner of the same type, like Microtek's own ArtixScan 1800f I reviewed last year? My experience is that it is close, but does not match the higher-priced scanner in all respects. For example, even though the resolution specs of the 1800f are lower, the i900 does require more software image sharpening, especially when the original size becomes smaller, and does not capture as much fine detail. This is due to the i900's six-line CCD compared to the three-line CCD of more expensive professional scanners. To some extent this one shortcoming can be overcome by careful software sharpening that is done in stages using different sharpening tools. This should avoid creating artifacts that are common to using too strong a setting with Unsharp Mask sharpening.

My recommendation is that if your scan needs include scanning prints and a variety of large- and medium-sized film, and your budget is limited, you cannot do better than the Microtek ScanMaker i900. If the only film you have to scan is 35mm, you are best served by getting a dedicated 35mm scanner, like the Microtek ArtixScan 4000tf, which is now selling for close to the same price as the i900.

For more information, visit Microtek's website at: www.microtekusa.com. 



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(Above) On a shooting trip in the eastern part of Washington state I came across this unusually tall, isolated grain elevator. I had a new lens for a 4x5 camera with me and thought the elevator would be a good test subject. Not familiar with the lens I obtained an uneven exposure of the film top to bottom due to the camera adjustments necessary to correct for perspective distortion, and was never able to obtain a good print from the negative. Once scanned however, capturing all of the incredibly sharp subject detail with the Microtek ScanMaker i900, I was able to use Photoshop to correct for the uneven exposure to get a completely satisfactory print of this ubiquitous monument to America's wheatlands. (Below) Although anything but an artful composition, I couldn't pass up this photograph of a wall covered with stamped steel ceiling plates. The Microtek ScanMaker i900 was able to both capture the intensity of some colors alongside the muted subtlety of others to a rare and most effective degree, resulting in a print that did full justice to the subject.



