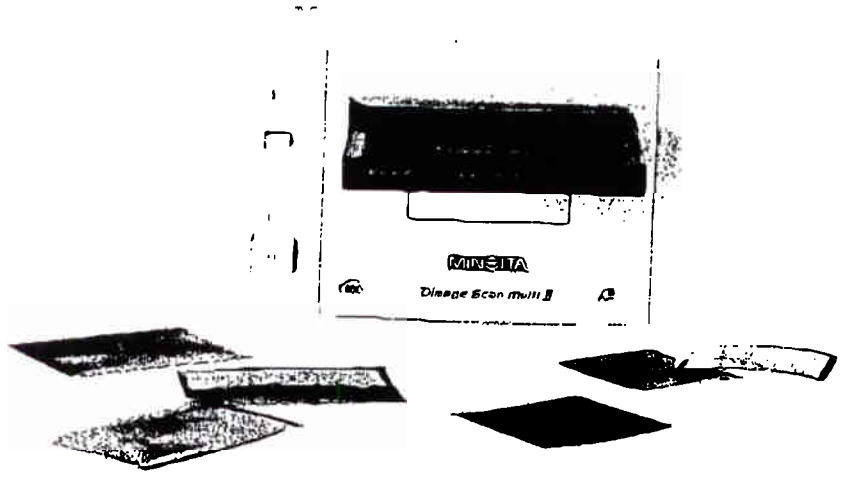


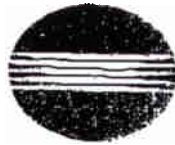


Dimâge Scan Multi II

Enhanced Edition of the Dimâge Scan Multi Provides Highly-Functional Driver Software Featuring Digital ROC™ and GEM™ Technologies...

The Dimâge Scan Multi II provides new, highly functional driver software while maintaining its predecessor's superb qualities such as high-resolution scans, precision autofocus and multiple-format scanning capabilities. In addition, the new driver software provides Applied Science Fiction's Digital ROC™ and GEM™ technologies. Combining these sophisticated features with Minolta's Multi Sample Scanning and Color Matching system further enhances the excellence of high-quality images. The new user-friendly GUI has a multitude of functions that significantly facilitate advanced image corrections. With highly automated features, such as the Navigation function, the scanning procedure is simplified. Furthermore, the Dimâge Scan Multi II is capable of scanning medium format films with the equivalent of 2,820 dpi through software Interpolation. The Dimâge Scan Multi II is an ideal scanner for professional uses in the photographic, design, printing, medical, educational and R&D fields.

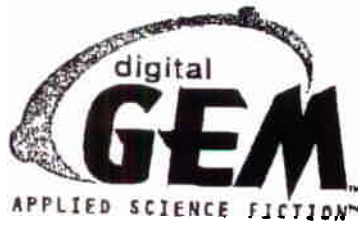




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⇒ **Digital GEM™ and ROC™ Technologies**



Digital GEM™ (Grain Equalization & Management) technology is based on another complex set of proprietary algorithms that are used during the data collection portion of the scanning process. This technology is able to read the grain details in film or slides and extract all of the vital data related to image quality, color and sharpness, much in the way that Digital ICE™ technology corrects for surface defects. The resultant image is amazingly sharp and clear, without all of the grain clutter or graininess.

Film grain is the silver halide crystals that compose the photographic emulsion; it's the by-product of the film light sensitive emulsion. The graininess of film refers to a subjective measure of the visible clumping of the grains in the emulsion. Film grain is similar to the resolution of a computer monitor, the lower the resolution, the larger the pixels and the less image detail is provided.

In the past, the best media for enlargements came from either large format cameras or small format cameras using slower speed film. Now, faster speed films and smaller format cameras (like 35mm) can be used with the same success as with the larger format cameras.



The second technology developed by Applied Science Fiction, called Digital ROC™ (Reconstruction of Color), addresses the need for high-quality scanned image output, regardless of the color condition of the original film, slide negatives and positives.

Digital ROC™ technology is software specifically tuned to the characteristics of a specific scanner. The technology automatically and meticulously rebuilds the lost color values in film positives or negatives and recreates instant color-corrected digitized images. This technology will always restore some of the color and in extreme cases will certainly improve it, although in extreme cases might not be able to totally restore the image.



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Unlike other image-quality improvement products in the market (PhotoShop™ and Intellihance™) that run a series of filters on the post-scanned image which amounts to intelligent guess-work, Digital ROC™ software identifies clues in the original imaging medium to correct the color. Using a complex set of proprietary algorithms, Digital ROC™ technology reconstructs the actual colors from the original color data and presents a fully restored or enhanced image to the user. As with Digital ICE™ technology, the process is done during the image capture phase leaving the user free to use other software for manipulating or modifying the image. For the novice user, the Digital ROC™ enabled scanner will be an automated, single-button solution (on/off). For the more advanced user or professional, Digital ROC™ software can be configured to allow for all aspects of image correction including definable profiles for different input devices, output devices and customer preference.

⇒ **COLOR MATCHING SYSTEM**

The Dimâge Scan Multi II's Color Matching offers sRGB, Apple RGB, SMPTEC-C, PAL/SECAM and other color space settings so images on one monitor can show the same colors on another monitor. In addition, using the monitor's ICC profile makes it possible to match the colors of prescanned images and final scanned images on the monitor.

⇒ **MULTI SAMPLE SCANNING**

The Multi Sample Scanning function makes multiple exposures of the same image and generates a scanned image based on the average data in order to eliminate or reduce random noise. Users can select the number of scans from 2, 4, 8, 16 and 0 (off).

⇒ **USER-FRIENDLY DRIVER SOFTWARE**

The Dimâge Scan Multi II's driver software combines versatility with simplicity. This driver software is available for both Macintosh and PC/AT compatible systems. It is delivered as a stand-alone application. It can also be used as an Adobe PhotoShop plug-in or a TWAIN driver. A multitude of popular graphics applications have been tested using both. The driver software features the following user-friendly functions:



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Navigation Function

Scanning multiple images has never been easier than with the Navigation function; a system to automate the scanning procedure. For scanning check the box of a desired operation, and start Navigation. The Navigation function will activate a scanning flow, opening a window that takes the user step-by-step through the setting process. Combine this with the continuous scanning feature and the procedure for scanning is even more simplified. Scanning the Advanced Photo System film will be drastically simplified as procedures for the entire roll of film can be automated from index scan through rewind, with minimum manual operation for selecting frames.

Snap Shot

One of the critical jobs in image correction is to decide the best image to scan while corrections are applied to the preview image. But the latest correction may not be always the best one. Snap Shot enables the users to temporarily save various corrections for each preview image and compare them quickly with a scroll.

Image Correction Job

Image Correction Job saves the correction settings of an image, so the users can apply them to another preview image. This will make the retouch and comparison process much easier.

Auto Crop

With Auto Crop function, holder frame and slide mount frame can be automatically removed from the preview images.

Hue/Saturation/Lightness Correction

For added versatility, HSL system enables image correction by Hue, Saturation, and Lightness in addition to ordinary R/G/B color balance adjustment.



Dimâge Scan Multi II

AE Area Lock

For versatile exposure compensation, the AE Area Lock adjusts the exposure based on a selected area.

⇒ **2,820 DPI FOR MEDIUM FORMAT FILM**

In addition to the 2,820 dpi optical resolution currently available for 35mm, APS and 16mm film, the Dimâge Scan Multi II is capable of scanning medium format film with the equivalent 2,820 dpi through software interpolation.

FEATURES FROM THE DIMÂGE SCAN MULTI FIRST EDITION

- **Multi-Format Capability**
Usable film types include 35mm, Medium format, APS, 16mm and TEM.
- **High Image Quality**
 - Max. 2,820dpi optical resolution is available to 35mm, APS and 16mm.
 - 12-bit input, 16-bit output (per channel), plus 3.6 wide dynamic range means smoother, faithful color rendition, from highlight to darkest point.
 - High precision autofocus features Point AF, which allows autofocus to be used for a particular point of an image area.
- **High Productivity**
 - Fast scanning (when Digital ROC/GEM function is off.)
 - Continuous scanning is available up to six sleeved- and four mounted-frames of 35mm film. For APS, up to four mounted-frames can be scanned, while the optional APS Adapter AD-100 allows scanning 40 frames in cassette. With the optional Slide Feeder, up to 50 mounted-slides can be scanned.
- **Simple Operation**
 - Minolta's unique Job Function
Approximately 670 settings of Job function eliminates the need for complicated calculations of image size and resolution for output. It's even possible to make custom settings.



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Technical Details

Usable film type

35mm:	Color/B&W, negative/positive
Medium format (120/220)	
(6 x 4.5, 6 x 6, 6 x 7, 6 x 8, and 6 x 9cm):	
	Color/B&W, negative/positive
APS:	Color/B&W, negative/positive
16mm:	Color/B&W, negative/positive
TEM (5.9 x 8.2cm):	Color/B&W, negative/positive

Scan size & No. of pixels TBD

<u>Film Format</u>	<u>Scan Size</u>	<u>Max. Input Pixels</u>	<u>Max. Input Resolution</u>
35mm:	24.20 x 36.30mm	2,688 x 4,032 pixels	2,820 dpi
Medium format (120/220):			
6 x 4.5	56.16 x 41.76mm	2,496 x 1,856 pixels	1,128 dpi*
6 x 6	56.16 x 56.16mm	2,496 x 2,496 pixels	1,128 dpi*
6 x 7	56.16 x 64.80mm	2,496 x 2,880 pixels	1,128 dpi*
6 x 8	56.16 x 78.08mm	2,496 x 3,472 pixels	1,128 dpi*
6 x 9	56.16 x 83.52mm	2,496 x 3,712 pixels	1,128 dpi*
APS:	17.28 x 29.95mm	1,920 x 3,328 pixels	2,820 dpi
16mm:	13.00 x 19.50mm	1,444 x 2,166 pixels	2,820 dpi
TEM:	56.16 x 82.00mm	2,496 x 3,644 pixels	1,128 dpi*

* With optional Universal Holder, max. 2,820dpi equivalent resolution is available.



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Specifications Table:

Max. Input Resolution (optical)	35mm, APS, 16mm: 2,820 dpi Medium format, TEM: 1,128 dpi
Scan System	Fixed sensor, film transport, single pass type
Image Sensor	RGB 3-line CCD (2,700 pixels)
Scan Time (times are approximate)	TBD
A/D Conversion	12-bits
Output Data	8-bits or 16-bits per color channel
Dynamic Range	3.6
Interface	SCSI-2 (connector: full 50 pin or D-sub 25 pin)
Focus	Autofocus, Point AF, Manual Focus
Light Source	3-wavelength fluorescent lamp
Power Frequency	100-240 VAC, 50/60 Hz
Power Consumption	Max. 40W
Dimensions (wxhxd)	7-7/8 x 16-1/8 x 4-7/2"
Weight	211-5/8 oz.
Standard Accessories	CD-ROM for Dimâge Scan Multi II 35mm Film Holder FH-M1 Slide Mount Holder SH-M1 Medium Format Film Holder MH-M1 including mask for 6x4.5, 6x6, 6x7, 6x8, 6x9 APS Sleeve Film Mask 16mm Film Mask SCSI Cable
Optional Accessories	APS Adapter AD-100 Slide Feeder SC-100 Universal Mask UM-M1 Universal Holder UH-M1 Fluorescent Lamp Holder FL-100



Dimâge Scan Multi II

PC/AT

- Computer:** IBM PC/AT Compatible.
- CPU:** Intel Pentium® processor or better.
· Support cannot be provided for custom or home built machines.
- Operating System:** Windows® 95 (incl. OSR2), 98 (incl. Second Edition), Windows® 2000, Windows NT® 4.0
- Memory:** TBD
- Hard Disk Space:** TBD
- Monitor:** XGA (1024 x 768) or larger is recommended. VGA (640 x 480) monitor capable of displaying High Color (16 bits) can also be used.
- SCSI Board:** TBD
- Other:** TBD

MACINTOSH™

- Computer:** Apple Macintosh™ (Power Macintosh).
- CPU:** PowerPC only (68K not supported).
- Operating System:** Mac OS 7.55 or later.
- Memory:** TBD
- Hard Disk Space:** TBD
- Monitor:** 19 inch-type (1024 x 768) or larger monitor capable of displaying at least 32,000 colors is recommended. 13 inch-type (640 x 480) can also be used.
- SCSI Board:** TBD
- Other:** TBD

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Competitive Film Scanner Comparison

	Minolta Dimâge Scan Multi II	Kodak RFS 3570	Polaroid Sprintscaan 45I	Nikon LS-4500AF
Max Resolution (35mm) (Medium Format)	2820dpi 1128dpi	2000x3000 (1888dpi) 2000x3000 (910dpi)	2000dpi 2000dpi	3000dpi 1000dpi
Color Depth (per Channel)	36 bit (12 bit/channel)	36 bit (12 bit/channel)	36 bit (12 bit/channel)	36 bit (12 bit/channel)
Dynamic Range	3.6D	N/A	3.4D	3.0D
Output Data	8-bit or 16-bit	8-bit	8-bit or 16-bit	8-bit
Image Sensor	1 pass RGB CCD	monochrome CCD	1 pass RGB CCD	3 pass monochrome CCD
Light Source	RGB 3-wavelength fluorescent lamp	Xenon Flash tube with 3 color filters	cold cathode fluorescent lamp	halogen lamp with 3 color filters
Pre-Scan Speed	Approx. 10 Sec.	Approx. 7 Sec.	Approx. 60 Sec.	Approx. 30 Sec.
Scan Speed (max. reso- lution, 6x6 film)	Approx. 60 Sec.	Approx. 60 Sec.	Approx. 180 Sec.	Approx. 180 Sec.
Max File Size	APS 18.2 MB 35mm 31 MB 13.2MB / 82 MB* 6x4.5 17.8 MB / 108.6 MB* 6x6 20.5 MB / 138.5 MB* 6x7 26.5 MB / 165.7 MB* 6x9	N/A 18 MB 8.9 MB 12 MB 14.6 MB 17 MB	N/A 18 MB 48.1 MB 64.5 MB 73 MB 96 MB	N/A 35 MB 10.8 MB 14.5 MB 17.7 MB 20.9 MB
Autofocus	Yes Manual (selectable)	Yes	No	Yes
Digital ROC, GEM	Yes	No	No	No
Multi Sample Scanning	Yes	No	No	No
Continuous Scanning	Yes (APS & 35mm)	No	Yes (35 slide only)	No
Color Matching	Color Space ICC Profile	No	No	No
Interface	SCSI 2	SCSI 2	SCSI 2	SCSI 2
Driver Software	Mac, Win95, Win98 WinNT 4.0	Mac, Win95, Win98	Mac, Win95, Win98 WinNT 4.0	Mac, Win95, Win98
Bundled software	Canto Cumulus 5.0 Genuine Fractals	None	Binuscan	None
APS Compatible Adapter:	Yes Optional (auto advance)	No	No	No
Slide Feeder Adapter	Optional	No	No	No
SCSI Board	Included AVA-2906	Not Included	Not Included	Not Included
Size (WxHxD)	7.8" x 4.9" x 16.1"	13.25" x 8" x 21"	13" x 7" x 21"	11.6" x 9.8" x 16.5"

*Interpolated resolution at 2,820 dpi.