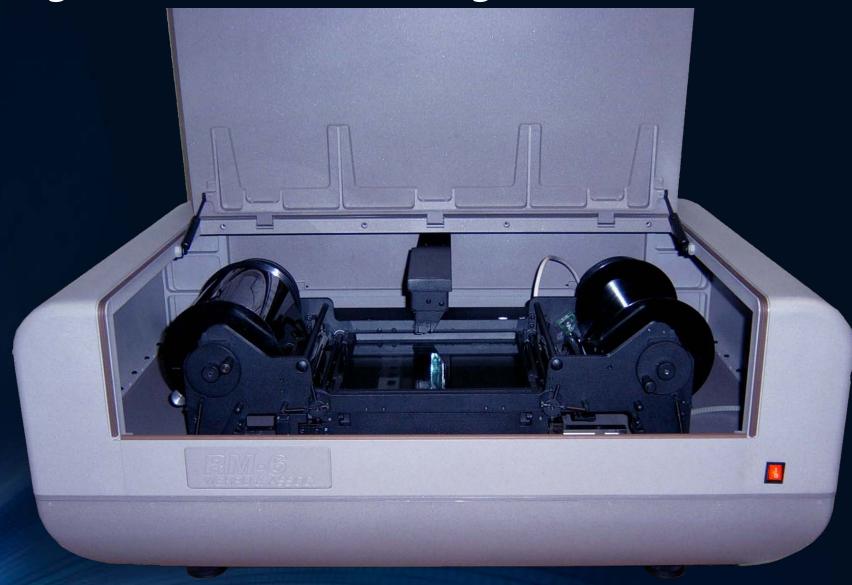
RM-6 AutoScanner

A <u>WEHRLI/GEOSYSTEM</u> INSTRUMENT

Photogrammetric Scanning

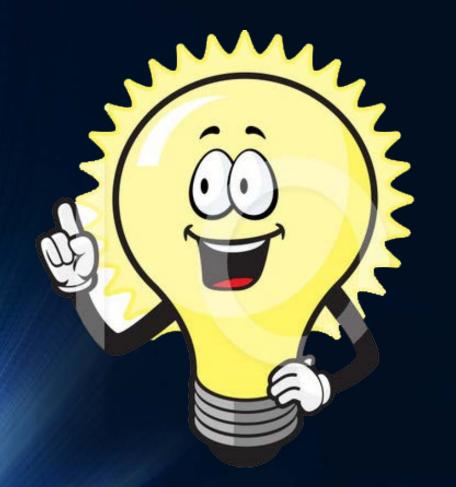


Reel Features



- Roll film or individual frame (cut sheet) scanning
 Color, Black/White or Infrared film Glass plates
- Motorized spools for automated film advancement
- Automatic fiducial or image edge detection to find next frame
- Auto rewind film when scan session complete
- Pressure plate & film lifted during transport to prevent scratching of film

Illumination Features



Cool LED illumination system – no heat
Full spectrum light source
Calibrated for even light levels – no banding
Long lasting – 30,000 hours

Project Management



- Multiple setups/jobs; scan/skip frames; rotate frames
- File names count up/down; user defined prefix or mask
- Histogram Analysis brightness, contrast, gamma
- Scan parameters defined automatically for best tonal correction and image quality
- Auto rewind film when scan session complete
- Image Editor: rotate, resample, pyramids, remove camera vignetting, etc.

Dust/Scratch Removal Module: The only way to truly get clean images



Image With Dust & Scratches

Image Of Only Dust & Scratches



Clean Image - No Dust or Scratches

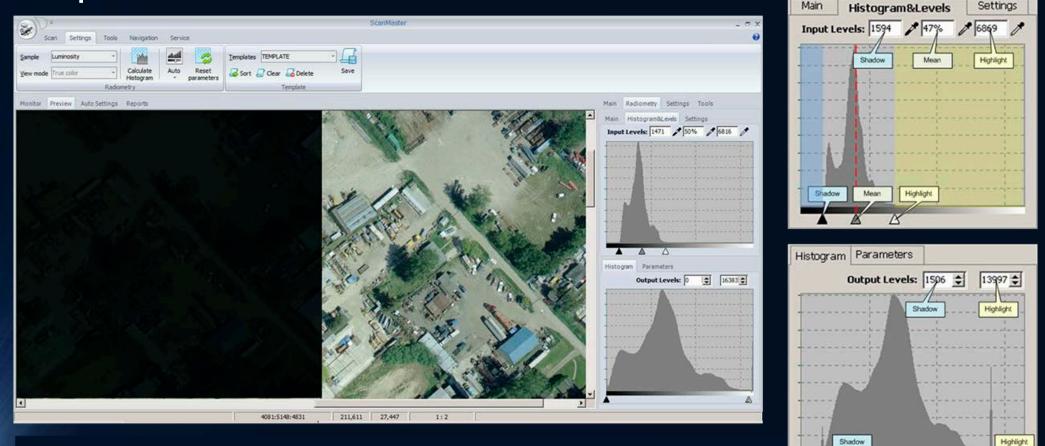
HOW IT WORKS:

The image is scanned twice – once with RGB light and once with IR light. The IR image is used to detect exactly where and what is foreign from the original image. Software then utilizes surrounding image information to remove the foreign matter from the original RGB image

Modern User Interface:

- Templates for quick, easy setup
- Progress reporting
- Single window with multi-tabs
- Real time preview of scanned image

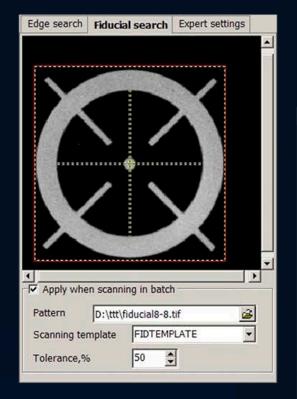


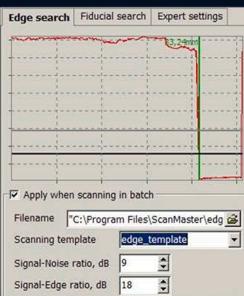


Easy Scanning Setup:

- Histogram analysis Automatic adjustment processing tools such as AutoLevels and AutoColors
- Preview for adjustment of radiometric parameters maximize histograms
- Input / Output levels analysis for image correction

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Automatic Scanning Features:

- Easy and complete multi-frame scanning session setup
- Detect next frame via Fiducial or Image Edge
- Wizards walk operator step-by-step for setting up scan session

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Log Reports:

- List of captured images with all scan parameters
- Log of system status, errors and warnings
- Thumbnails of scanned ••• image per session

Technical Specifications

8µms optical (3175 ppi)				
12,16,20,24,128µms in real time by binning				
Other sizes by post process				
Roll Film (manual/automatic) - Individual Frame				
Positive or Negative - B/W or Color transparency				
±3µms RMSE <i>without resampling image data</i>				
1µm resolution				
14 bits/channel				
0.001 to 3.7D				
3.4D				
Computer controlled LED - 30000 hours				
Tri-linear CCD, Sony 5300, Fully compensated				
Roll Unit 260x240mm - Cut Sheet 260x260mm				
Tiled TIFF, Strip TIFF, TIFF 6.0 JPEG, JPEG 2000				
Output 8/10/12/14 bits per channel-user selectable (FULL)				
Windows 7 (32 or 64 bit) [™] , Windows XP [™]				
0.83x1.10x1.00 M				
165 Kg.				

Sample Scan Times for Full Frame

MODE	PIXEL SIZE	TIME
B/W	8 μms	8 minutes
B/W	12 µms	6 minutes
B/W	16 µms	5 minutes
B/W	20 µms	4 minutes
B/W	24 µms	3.5 minutes
Color	8 μms	14 minutes
Color	12 µms	10 minutes
Color	16 µms	8 minutes
Color	20 µms	7 minutes
Color	24 µms	6 minutes

World Wide Scanner Installations

<u>COUNTRY</u>	<u>UNITS</u>	<u>COUNTRY</u>	<u>UNITS</u>	<u>COUNTRY</u>	<u>UNITS</u>
Argentina	1	Iran	5	Russia	83
Armenia	1	Israel	2	Scotland	1
Australia	4	Italy	2	Serbia	2
Azerbaijan	1	Jordan	1	South Korea	4
Belarus	2	Kazakhstan	2	Spain	9
Botswana	2	Korea	1	Sudan	2
Bulgaria	2	Laos	1	Sweden	4
Burkina Faco	1	Malaysia	1	Turkey	7
Canada	5	Mexico	9	Turkmenistan	1
China	19	Mongolia	1	UAE	4
Croatia	2	Morocco	2	Ukraine	38
Egypt	1	Nigeria	1	USA	37
France	1	Nouth Korea	1	Vietnam	8
Ghana	1	Poland	3 Zimbabwe		1
Greece	1	Portugal	1		
India	2	Romania	2		

Company Profile

Gregory R. Wehrli Managing Director greg@wehrliassoc.com

Wehrli & Associates, LLC. was incorporated in 1991 with the aim to develop, manufacture and sell photogrammetric instruments worldwide. Founded by Hans Wehrli after serving 35 years as Director of Photogrammetry and CEO of the North American branch of Kern & Co. (now part of Leica GeoSystem).

Wehrli and Associates Inc. main advantage has always been its ability to takes its user knowledge base and parlez that into the development of a useful, high quality photogrammetric tool. Our philosophy has always been to utilize a COTS strategy (components off-the-shelf) thereby letting larger industries absorb the cost and time developing those components.

Our instrumentation and software packages are used worldwide whether they be industry-ready or custom made instrumentation. Products analytical stereoplotters, RasterMaster (RM) photoscanners series, aerial stabilization platforms, digital aerial cameras, forward motion compensators and automatic 3D mapping software package for ready-to-fly drones.

Since 2000, Wehrli and Associates Inc has partnered with Geosystem SSPE (Vinnitsa, Ukraine) in the R&D and marketing of photogrammetric instrumentation. This has been most successful, as the marriage of our technical and marketing knowledge base aligned with a low-cost manufacturing source has enabled us to reach a broader worldwide base and provide better instrumentation to the market place.



Scanning Process

- Clean & dry film
- Determine number of frames to scan, skip and rotate
- Analyze condition of film splicing, age, media type

Inspect Film

Scan Film Roll

- Setup for optimal scan parameters resulting in automatic tonal correction
- Scan can be unattended

- Visual inspection of scanned frames
- Geometric accuracy report of scanner

Quality Control