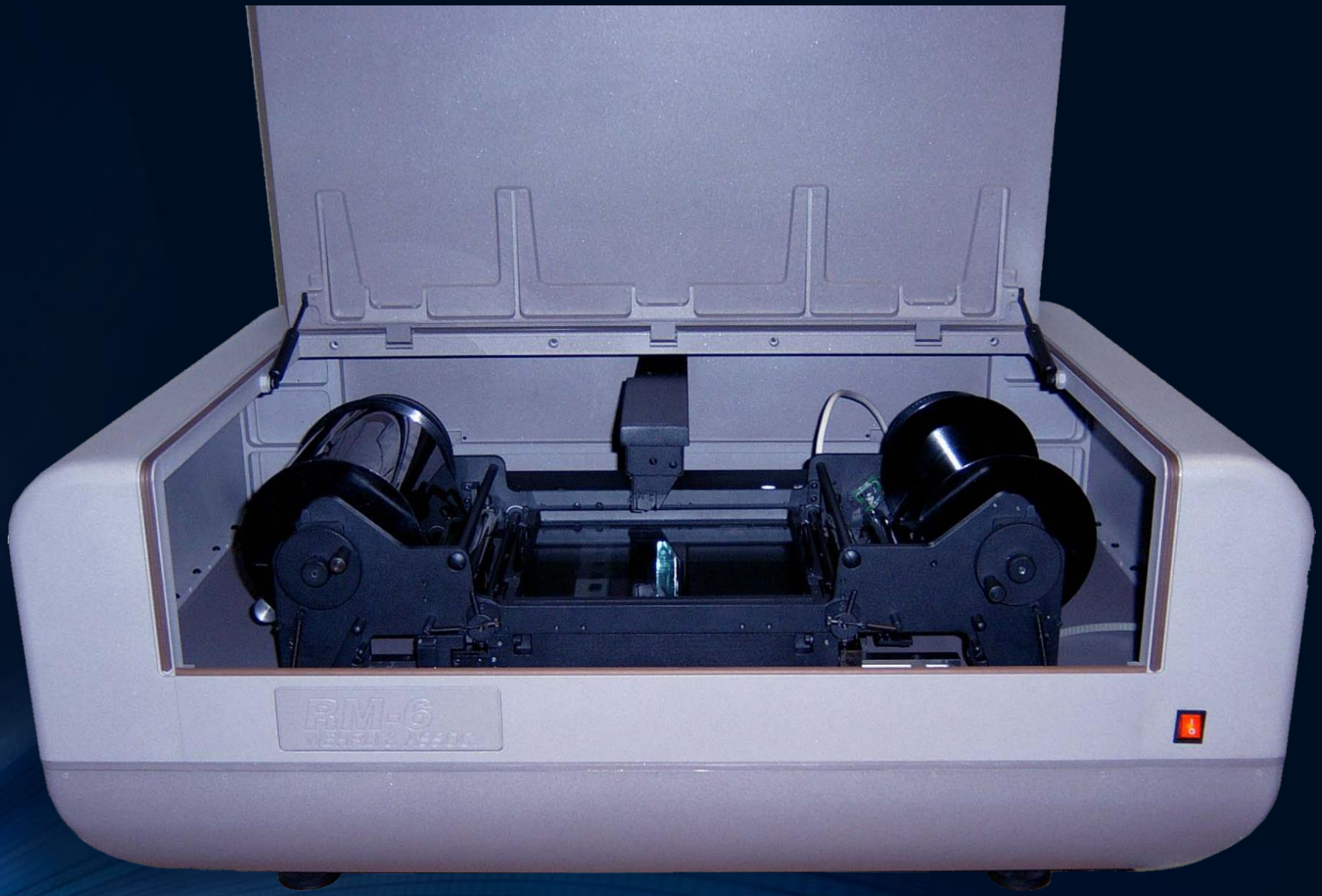
RM-6 AutoScanner

A WEHRLI / ANALYTICA 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

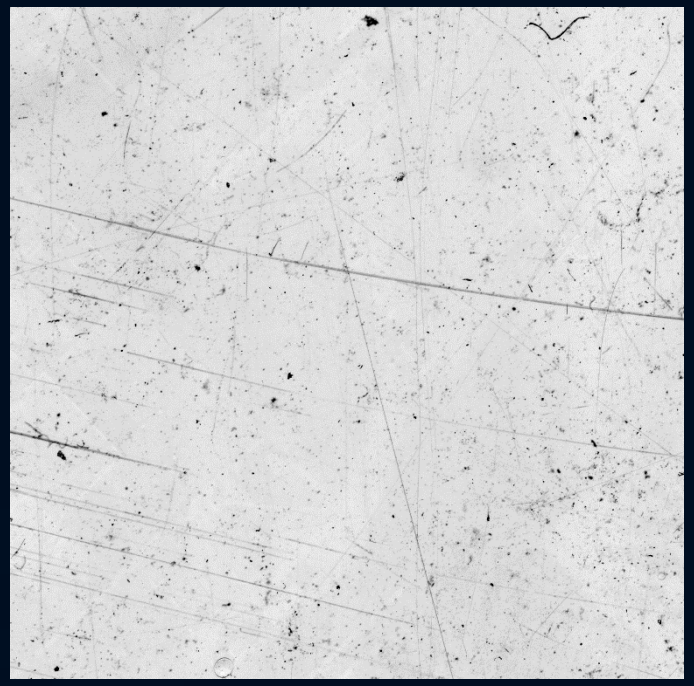
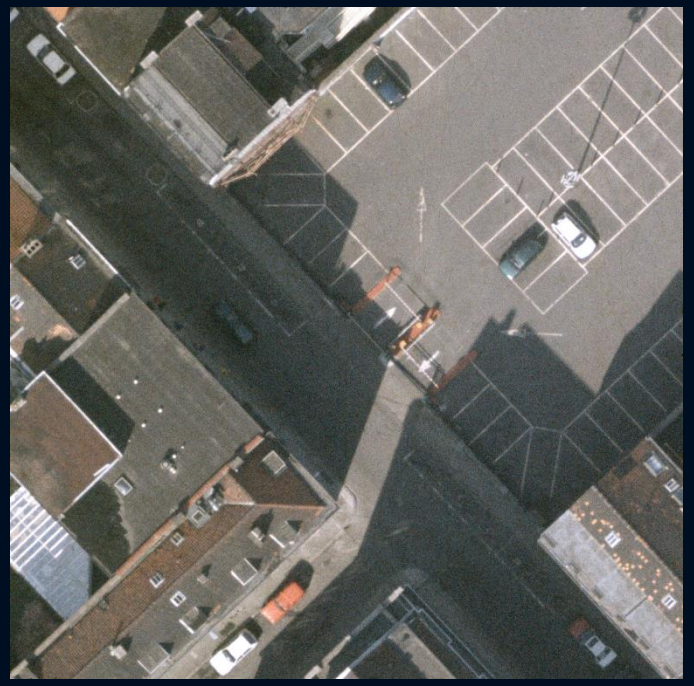


Image Of Only Dust & Scratches



Clean Image - No Dust or Scratches

HOW IT WORKS:

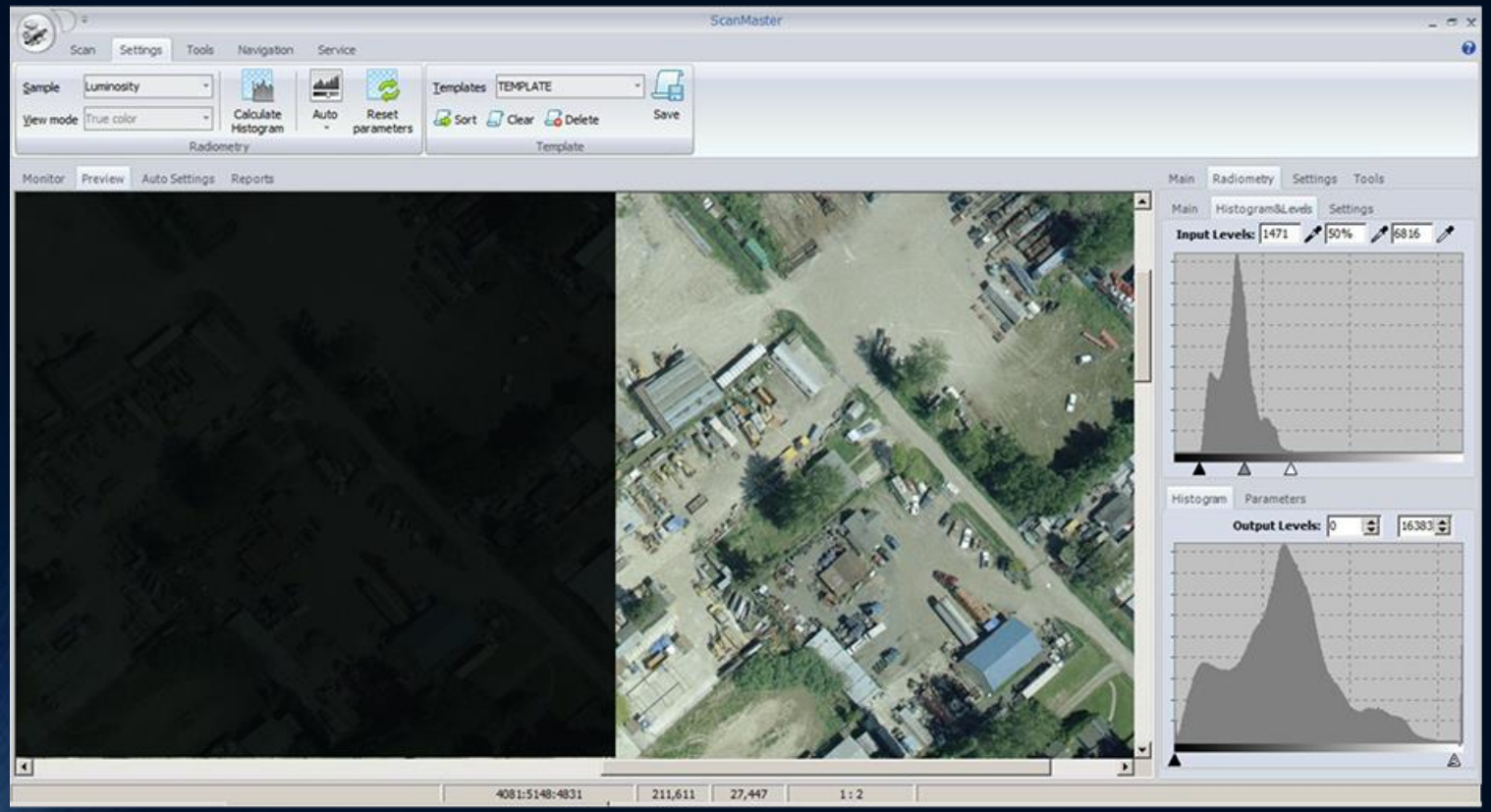
The image is scanned twice – once with RGB light and once with IR light. The IR image is used to detect exactly where and what is foreign from the original image. Software then utilizes surrounding image information to remove the foreign matter from the original RGB image

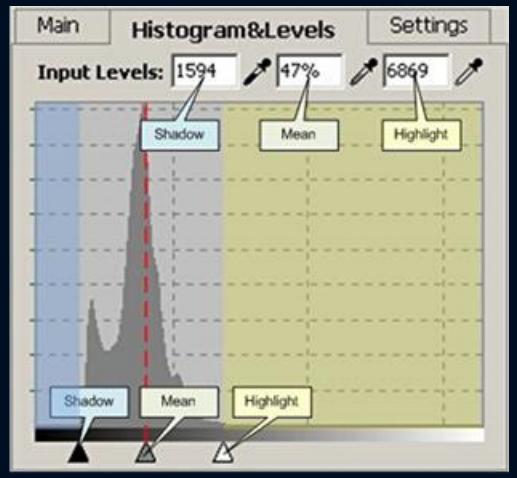
Operational Software:

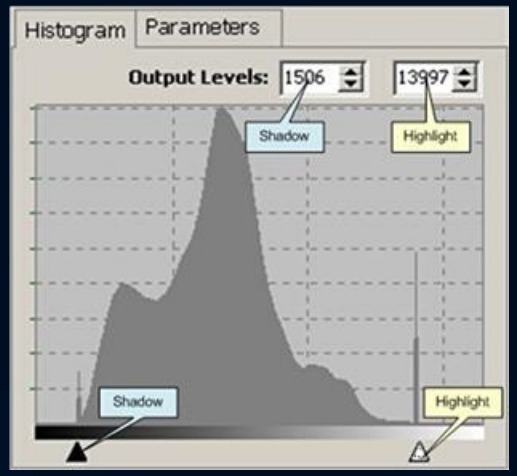
Modern User Interface:

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

Operational Software:



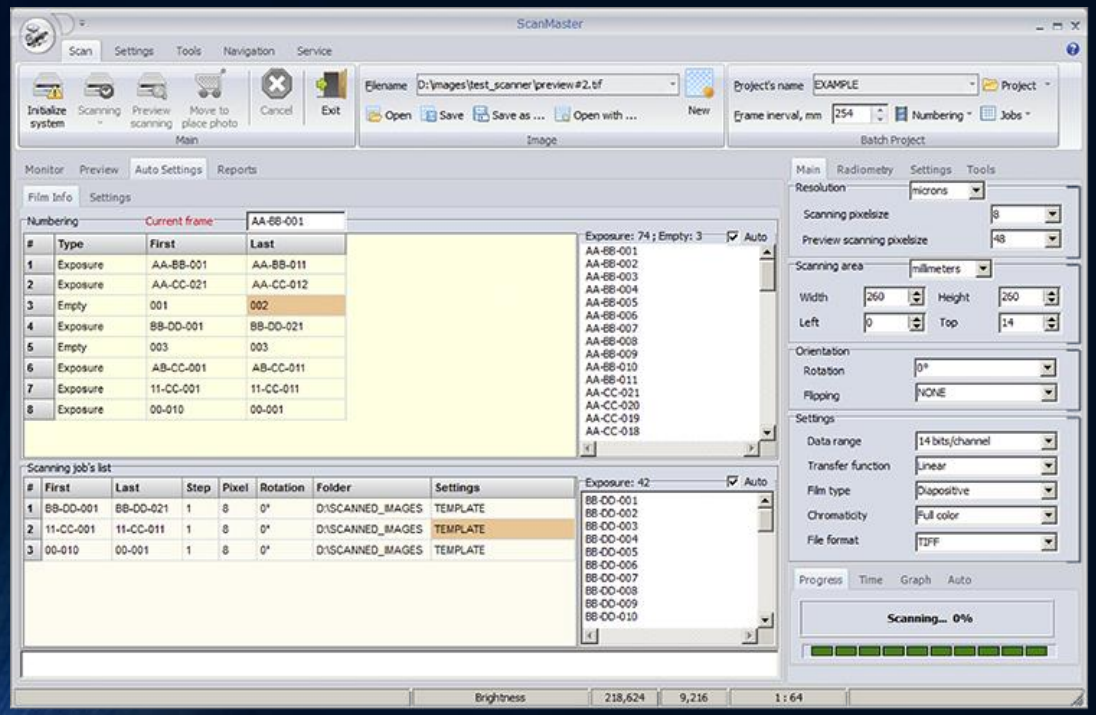


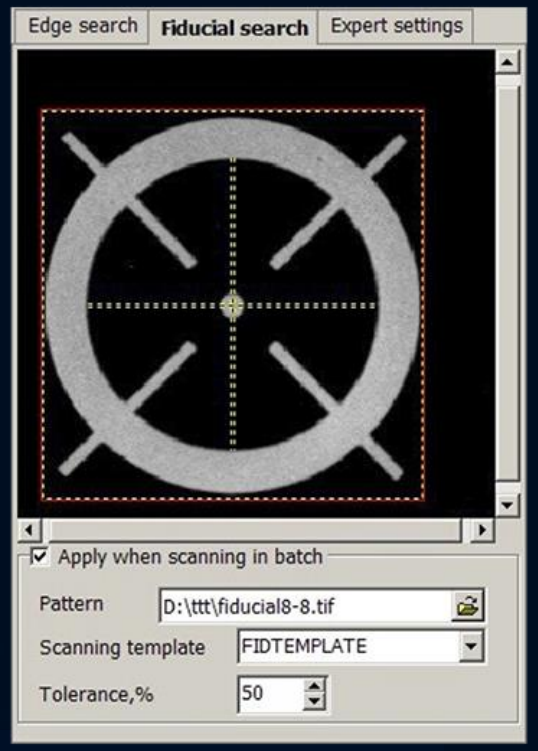


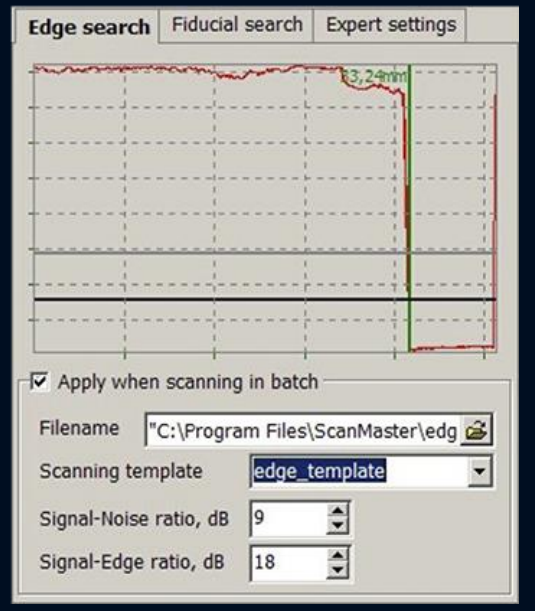
Easy Scanning Setup:

- 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

Operational Software:



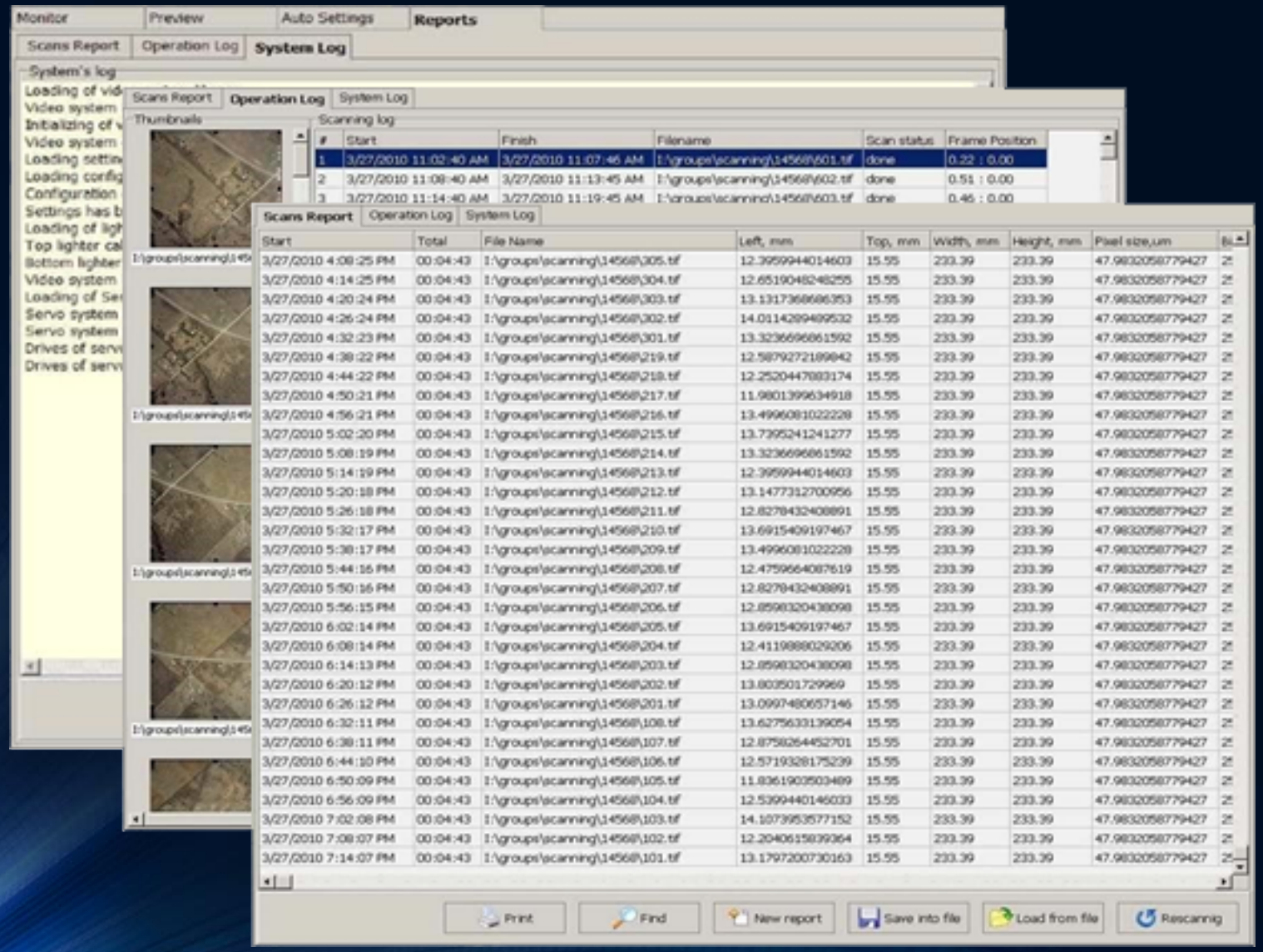




Automatic Scanning Features:

- 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

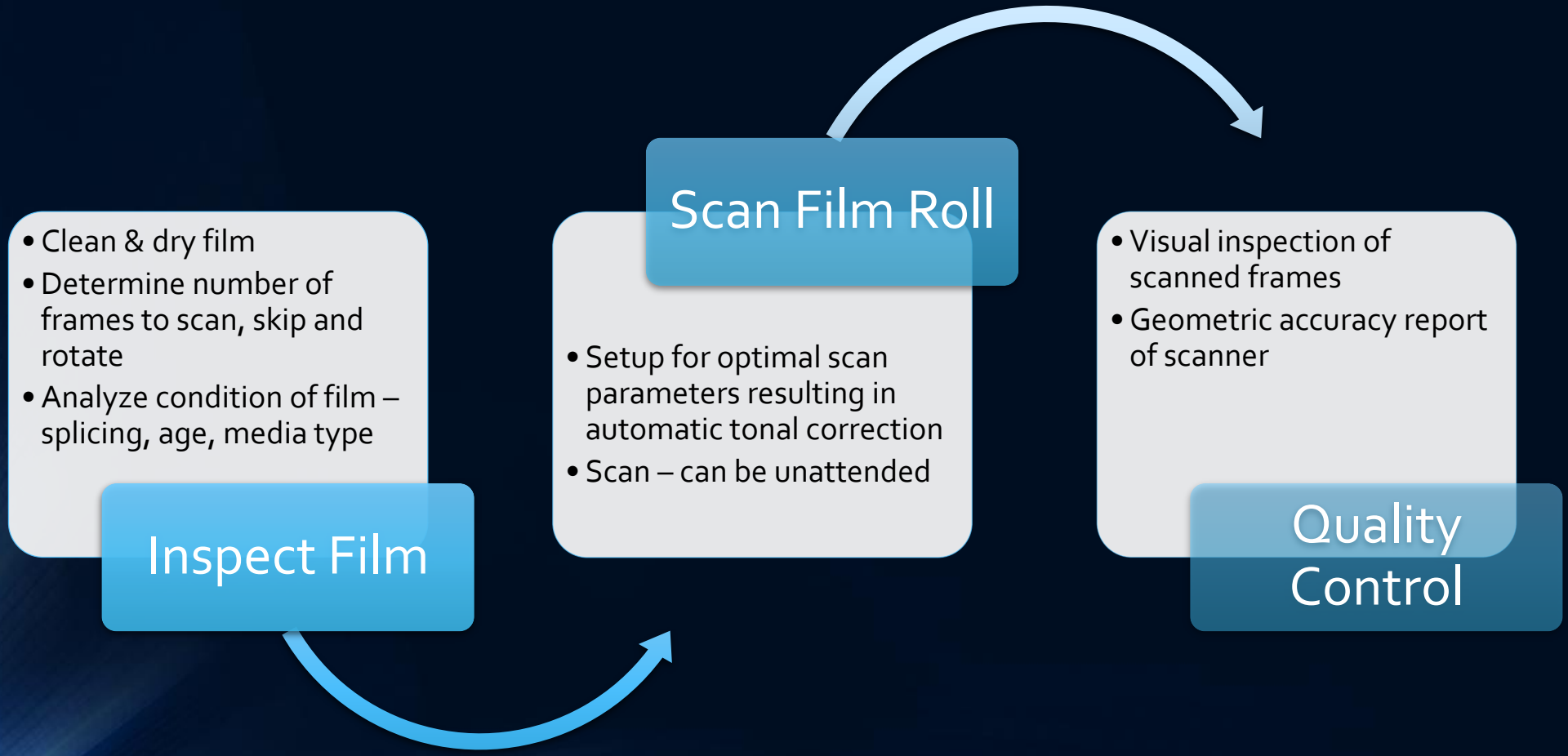
Operational Software:



Log Reports:

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

Scanning Process



Technical Specifications

Resolution	8µms optical (3175 ppi) 12,16,20,24,….128µms in **real time** by binning Other sizes by post process
Media	Roll Film (manual/automatic) - Individual Frame Positive or Negative - B/W or Color transparency
Geometric Accuracy	±3µms RMSE ***without resampling image data***
Geometric Precision	1µm resolution
Radiometry	14 bits/channel
Optical Density	0.001 to 3.7D
Dynamic Range	3.4D
Illumination	Computer controlled LED - 30000 hours
Sensor	Tri-linear CCD, Sony 5300, Fully compensated
Scanning Range	Roll Unit 254x254mm - Cut Sheet 256x254mm
Image Format	Tiled TIFF, Strip TIFF, TIFF 6.0 JPEG, JPEG 2000 Output 8/10/12/14 bits per channel-user selectable (FULL)
Operating System	Windows 7 (32 or 64 bit)™, Windows 10™
Dimensions	0.83x1.10x1.00 M
Weight	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

COUNTRY	UNITS	COUNTRY	UNITS	COUNTRY	UNITS
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	5	Thailand	4
Canada	7	Mexico	9	Turkey	7
China	19	Mongolia	1	Turkmenistan	1
Croatia	2	Morocco	2	UAE	4
Egypt	1	Nigeria	1	Ukraine	38
France	1	Nouth Korea	1	USA	37
Ghana	1	Poland	3	Vietnam	8
Greece	1	Portugal	1	Zimbabwe	1
India	2	Romania	2		

Company Profile

Gregory R. Wehrli
Managing Director
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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 LLC 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 Analytica (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.