Color Photogrammetric scanner 260×260

is a digital photogrammetric system, which includes a color scanning workstation and several workstations for mapping and orthophoto. All the stations are connected via network that allows sharing scanner output effectively.

Scanning workstation

Color photogrammetric scanner for photographs up to 260x260 mm large and for roll films up to 240 mm wide

Geometric parameters

The scanner provides a high resolution, which is 8 μm (3175dpi).

Root mean square error of scanning does not exceed ±3 μm. The value of root mean square error is determined by scanning and measuring the control grid;

Scanner is supplied with a unit for scanning roll films up to 240 mm wide.

Radiometric parameters

Scanner is equipped with a SONY color linear CCD-sensor and a light source based on a power LED array: components that provide superb quality of output images;

Scanner provides scanning of transparent positive or negative, color and black-and-white materials and the scanning software stores output as True Color (42/24bit) or gray scale (14/8 bit) image files;

The scanning software automatically detects optimal values of exposition, contrast and gamma for each color channel;

Scanner can perform scanning in two modes: density linear and intensity linear, which provide optimal results for photographs of any quality;

Scanning time for a 230x230 image in True Color mode at a 16 μm pixel size is 8 minutes;

Automatic roll film transport

Scanning software

Supports scanning into TIFF Tiled, Strip TIFF, TIFF 6.0, JPEG, JPEG2000 RAW formats where the pixel size is: 4, 8, 12,16, 18…128 μm;

Contains a powerful unit for correction and transformation of output images.

Technical specification

1.	Minimum pixel size	8μm
2.	Geometric resolution	1μm
3.	Root mean square error	±3μm
4.	Maximal optical density	3.4D
5.	Optical density range	2.7D
6.	Video system resolution	14 bits per color channel
7.	Maximal scanning area	260x260 mm
8.	Roll film scanning	Up to 240 mm wide
9.	CCD-sensor	Color SONY 3x5300x8
10.	Light source	Power LED array
11.	Output formats	Tiled TIFF, TIFF 6.0, Strip TIFF, TIF (JPEG), JPEG, JPEG2000, RAW. Color 42/24bit, b/w 14/8bit
12.	Computer/OS	Intel/Windows

Typical scanning time

Pixel size	Color 24bit mode		Black-and-white 8bit mode	
	230x230		230x230	
μм	Time min	Size Mb	Time min	Size Mb
8	14	2368	8	788
12	10	1050	6	350
16	8	591	5	197

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LLC Analytica

The scanning software package is a collection of applications that work under Windows on an Intel-compatible computer. The software supports scanning of color and black-and-white photographs at various resolutions

Scanning software

Automatic detection of optimal parameters for scanning

Prescanning

Quick prescan feature allows building an image histogram, and then software automatically suggests optimal settings for further scanning: exposition, contrast and gamma for each color channel based on the histogram.

Users can set scanning parameters manually by simply clicking on the intensity histogram or on histogram of any color channel.

The program immediately reflects the changes on the image.

The program can build histograms for areas designated by user and perform image correction for these areas separately.

Sample prescan image with improper color balance and weak contrast

This is how the scanner output looks after automatic settings have been applied

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Scanning software capabilities

Automatic detection of optimal scanning settings;

Manual setting of scanning parameters and transformation tables for each channel separately;

Supports scanning into TIFF Tiled, Strip TIFF, TIFF 6.0, JPEG, JPEG2000 and RAW formats where the pixel size is: 4, 8, 12, 16…128 μm; Scanning into Tiled TIFF format with JPEG compression.

Density linear mode provides maximum detail and uniform distribution of pixel intensities around the image;

Scanning positives and negatives in straight and mirror modes, with rotation scanned image on 180°;

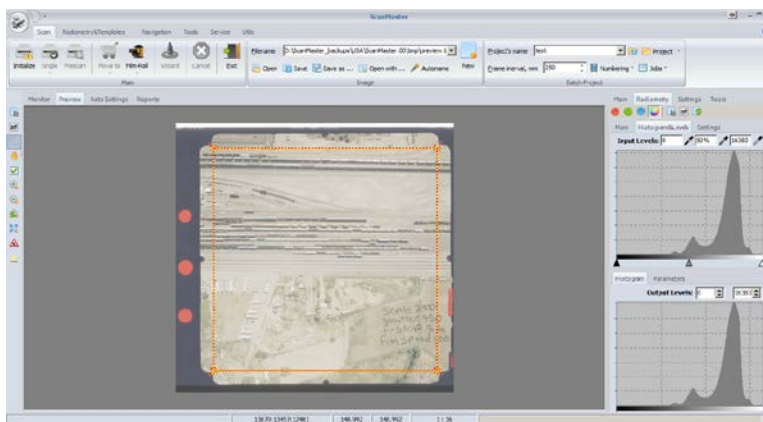The program can apply digital filters during scanning to reduce the noise of the image;

Dust & scratch removal module for color images only;

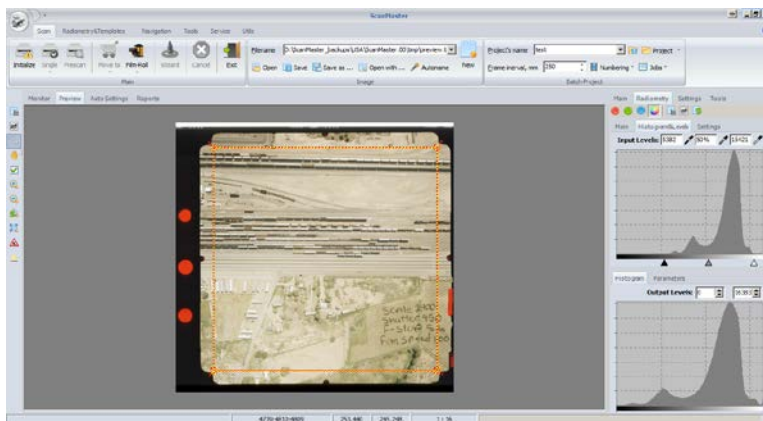Geometric calibration and accuracy control by measuring the control grid.

Radiometric calibration and elimination of irregularity of the light source;

An option that allows automatic creation of zoom pyramid during scanning.

Logging every scanning process allows users to view settings for previous processes and restore them, if necessary.

Post-processing software capabilities

Image analysis and histograms;

Image correction and applying various filters to groups of raster files;

Resampling images into any other pixel size;

Fast processing of raster files up to 4GB.