

# Quantum

## ADVANCED MICROFORM WORKFLOW SOFTWARE FOR THE MACH-SERIES SCANNERS

In just ten years, the Quantum software suite, custom-designed for use with Crowley and Mekel Technology MACH-series microfilm and microfiche scanners, has become a staple in notable libraries, archives, government institutions and business organizations across the globe. Garnering praise for its revolutionary microfilm and microfiche capture and processing power, Quantum software offers an intuitive yet detail-oriented workflow for converting microfilm to digital images.



“The Quantum processing software is incredible. The Mekel scanners process better and faster than our former scanners because we don't need a server attached to each machine...This is a tremendous competitive advantage for our company.”

~ Ryan Candela, Project Manager, Mountain States Imaging

## KEY BENEFITS



### Time and Cost Savings

- Lossless, edge-to-edge roll film or entire fiche capture. 100% capture; no rescans.
- Simultaneously capture images in grayscale and bitonal formats
- Enable multiple post-processing workstations by easily transferring manageable digitized files from the scanner PC
- No reloads. Store image strips for the life of a project and make as many changes as necessary without recalling the original media.
- Multi-media capability. The Quantum software suite can be used on both microfiche and microfilm images captured using MACH-series scanners.
- Share workflow for more cost savings. In Crowley's exclusive hybrid approach, Crowley imaging specialists scan collections on-site or in-house. Raw images are sent to the client for processing using their own QuantumProcess license.



### External PC = More Workstations, Less Downtime

The Quantum software suite operates via an external PC to enable easy system upgrades and minimize downtime. While the media is scanned on one external PC, images can simultaneously be processed on an unlimited number of separate workstations.



### Minimal Learning Curve

Easy and intuitive software interface allows for production-level operation within minutes of installation.



### Increased Operator Production

- Drive multiple scanners with a single operator
- Scan at full-rated speeds without operator intervention
- Share quality assurance tasks with multiple operators



### Quality Assurance

View entire film rolls or fiche jackets for quick and accurate image quality and frame accuracy inspection.



### Capture FADGI-rated images\*

### Compatible with iMAGEhost

Easily integrate images into the online platform for hosting, storage, retrieval, editing and output.



### Crowley Made, Crowley Used

Used in Crowley's award-winning digitization services bureau, Quantum software is tested, optimized and continuously perfected as technology advances and efficiencies become available.

# Quantum Scan

## EASY TO USE MICROFORM CAPTURE SOFTWARE

The QuantumScan intuitive capture software works in tandem with Mekel Technology's and Crowley's MACH-series microfiche and microfilm scanners to provide reliable, accurate capture of full-fiche, aperture card or full-roll ribbons in exceptional resolution and at unbeatable speed.

### Automatic Frame Detection

No complicated set-ups, just 100% image capture regardless of size or skew. Includes up to three level of blip detection.

### Speed

Reach speeds of 1400 images (microfilm)/ 200 images (microfiche) or more per minute and capture in the highest optical resolution on the market.

### Template Options

Create job templates for like projects to reduce set-up time and ensure image continuity across shifts.

### Image Quality Settings

Decrease post-scan edits with features such as automatic sharpening, exposure and more.

### Advanced Focus Option

Quickly fine-tune focus for various film thicknesses to ensure optimum image quality.

### Pre-scan Testing

Ensure image frames and quality are correct *before* production scanning.

### Advanced Frame Detection

Automatic, on-the-fly detection of simplex, duplex, comic and cine mode film formats.

### Simple Transfer

Capture raw roll and fiche footage in manageable file sizes for fast transfer to centralized storage and quality assurance.

### Seamless Software Integration

Scripting integration within the Quantum suite allows for quick launch of customized functionality or third party applications.

### Easy Integration into Crowley's IMAGEhost Platform

Make image hosting easy with Crowley's IMAGEhost platform for quick online access to microform collections in their original format via any internet-enabled device.

# Quantum Process

## REVOLUTIONARY TIME-SAVING MICROFORM PROCESSING SOFTWARE

QuantumProcess software offers users an expansive tool kit of editing and processing tools to tailor final images to the exact specifications needed. The QuantumProcess software works independently of a scanner so projects can be processed on single or multiple PCs using separate software licenses, freeing the scanner for the next project.

### Optical Character Recognition (OCR)

Output OCR-enabled .PDF, .TXT and HOCR files for easy text searchability.

### Batch Processing

Operators can process and save images simultaneously at multiple licensed workstations across the network.

### Strip Zoom Capability

Zoom function allows for different viewing ranges from "quick glimpse" to "detailed review" for quality and frame accuracy.

### Editing Toolkit

Multiple, sophisticated editing functions are only a mouse click away: frame creation; resize; delete; insert; overlap; undo; mirror; invert; etc.

### Fixed Grid Frame Replication

Set and apply a fixed image size and spacing to all or selected frames.

### Blip Removal

Remove blips from frame detection (optional).

### Irregular Frame Flag

Select a median average of all frame sizes, flagging only those images that fall outside of the average for review.

### Custom Processing

Select individual frames, frame groups or all frames to process/export.

### Multiple Image Output Options

Output images to uncompressed TIFF, JPEG, JPEG 2000 and others as well as PDF/A, TIFF LZW in single/multi-page formats. Additional output options include: grayscale files only; bitonal files only; simultaneous grayscale and bitonal files.

### Multiple Ribbon Output Options.

Output full ribbons in various formats, including: uncompressed TIFF, JPEG, bitonal TIFF and more.

### Easy Workflow Integration

Enable scripting integration in QuantumProcess to launch customized functionality either within QuantumScan or other third-party applications.

### Auto-Split and Book Mode

Avoid missing data from over-sized frames and gutter overlaps with auto-split and book mode options.

### "Go To" Command

Jump to any frame within a roll or fiche quickly and easily.

### Image Enhancement

Correct image quality on individual images, a selected group of images or an entire digital film roll or fiche.

- Dual View – Display both grayscale and bitonal image versions side-by-side for comparison
- Real-time – View image edits on-screen immediately as they are made
- Editing tools – Use a full complement of image processing features, including: crop; deskew; invert; rotate; and others

### File Naming Features

- Flexibility – QuantumProcess allows for user-defined directories. Dual file outputs can be saved to the same or different/multiple file locations
- Duplex-naming – Various options are available regarding desired duplex file-naming output
- Blip-naming – Output various file names and/or group files by blip/image marks within the blip channel of the film.

### Re-Detect Frames

A useful option when different quality film is spliced together on a single microfilm roll, typically making it difficult for auto-frame detection to find a group of images.



# THE *Quantum*<sup>M</sup> SOLUTION

## 100% IMAGE CAPTURE

1

### EASY LOAD

Load microfilm, microfiche or aperture cards onto any MACH-series scanner

2

### SET CAPTURE PARAMETERS

Select a preset imaging template for quick capture or set custom digitization settings

3

### SCAN

Capture media simply and easily using QuantumScan software

4

### SEND FILES FOR PROCESSING

Microfilm roll, microfiche sheet or aperture card files can easily be sent across a network or to a separate PC for processing in QuantumProcess

5

### FRAME AND EDIT

Ensure proper image framing and use feature-rich software to edit images to the exact specifications needed

6

### OUTPUT

Export final images to any desired file format. Files can be output with Optical Character Recognition (OCR) for easy keyword search.

7

### SAVE. SHARE. PRESERVE.

Share images over a network, to a private database, on the web or integrate with

 IMAGEhost

