

In 1989, Mekel Technology brought the world its first microfilm scanner.

Today, it brings the most advanced microform processing software in the market.

Quantu



Roll film. Ribbon scan. Strip scan. Complete capture.

No matter what the technology is called, when it comes to full-fiche or full-roll ribbon scanning, Mekel Technology's **Quantum** software scanning and processing technologies offer superior image capture, quality, processing and savings benefits.

Increase operator production

Scan at full-rated speeds without operator intervention

Share quality assurance tasks with multiple operators

Drive multiple **MACH-series** microfilm scanners with a single operator

Reduce microform scanning costs

Never search for lost images

Eliminate the need to rescan

100% image capture guaranteed

Optimum image quality



CROWLEY

ADVANTAGE

Quantum Scan

Easy To Use **Microfilm** Workflow



Automatic Frame Detection

Regardless of size, **QuantumScan** will find any frame automatically on a scanned roll without the need for complicated set-up wizards – 100% image capture guaranteed

Speed

Using varying resolution and reduction scenarios, the **Mekel MACH-series** can operate at speeds up to 1600 images per minute and offers the highest optical resolution on the market.

Template Options

Create job templates for like rolls, ensuring the continuation of quick and easy scanning

Image Quality Settings

Utilize independent grayscale and bi-tonal settings for one-time, easy set-up to ensure optimum image quality capture

Advanced Focus Option

Fine-tune focus within seconds for various film thicknesses to ensure optimum image quality

Pre-Scan Testing

Provides quick confirmation that images are correctly framed and that desired image quality has been achieved before starting production scanning

Multiple Ribbon Output Options

Various strip output formats are available including: uncompressed TIFF, JPEG and bi-tonal TIFF

Advanced Frame Detection

QuantumScan detects simplex, duplex, comic and cine mode film formats on the fly

Easy Transfer

QuantumScan turns raw roll footage into manageable strips, allowing for easy transfer to centralized storage and quality assurance

Easy Workflow Integration

QuantumScan enables scripting integration to launch customized functionality within the software or for third party applications

Quantum Process

Revolutionary **Microform** Processing Workflow

Batch Processing

Single or multiple QuantumProcess license availability enables digital reels to be processed across a network by multiple quality assurance technicians

Strip Zoom Capability

Use the image zoom function to allow for a range from “quick glimpse” to “detailed review” for quality and frame accuracy

Editing Toolkit

A sophisticated toolkit ensures that multiple editing functions are only a mouse click away: frame creation, resize, delete, insert, overlap, undo, mirror, invert, etc.

Fixed Grid Frame Replication

Allows for the setting of a fixed image size and spacing to be applied to all frames or selected frames in a group

Blip Removal

Provides the option to remove blips from frame detection

Irregular Frame Flag

Save time and labor by selecting a median average of all frame sizes, flagging only those images that fall outside of the average for review

Custom Processing

The “all” or “selected” options give the operator the ability to process/export all images in a roll or only those pre-selected

Multiple Output Options

Various file output options include uncompressed TIFF, JPEG, JPEG 2000 and others as well as PDF, TIFF G4 in single/multi-page

Additional output options include: grayscale files only; bi-tonal files only; or simultaneous grayscale and bi-tonal files

GES



Easy and intuitive software interface enables operators to be up and running in minutes

Easy Workflow Integration

QuantumProcess enables scripting integration to launch customized functionality either within **QuantumScan** or third party applications

Image Enhancement

A full complement of enhancement features is available for image quality corrections on either an individual image, a selected group of images or an entire digital film roll

Dual view. Allows for quick and easy tab-style view of both the grayscale and bi-tonal version of the image under review

Real-time. With a quick slide of the image enhancement toolbar, the operator receives immediate visual feedback of the selected settings within the image

Editing tools. Take advantage of a full complement of image processing features to include: crop; deskew; invert; and rotate

File-Naming Features

Flexibility. **QuantumProcess** allows for user-definable file names and directories. Dual file output 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. Have the ability to output various file names and/or group files by blip/image marks within the blip channel of the film

Auto-Split and Book Mode

Auto-detect and split oversized frames. Gutter overlap settings are also available to ensure that no data is cut off within the gutter portion of the open book image

“Go To” Command

Quickly and easily go to any frame selected within a roll for additional time savings

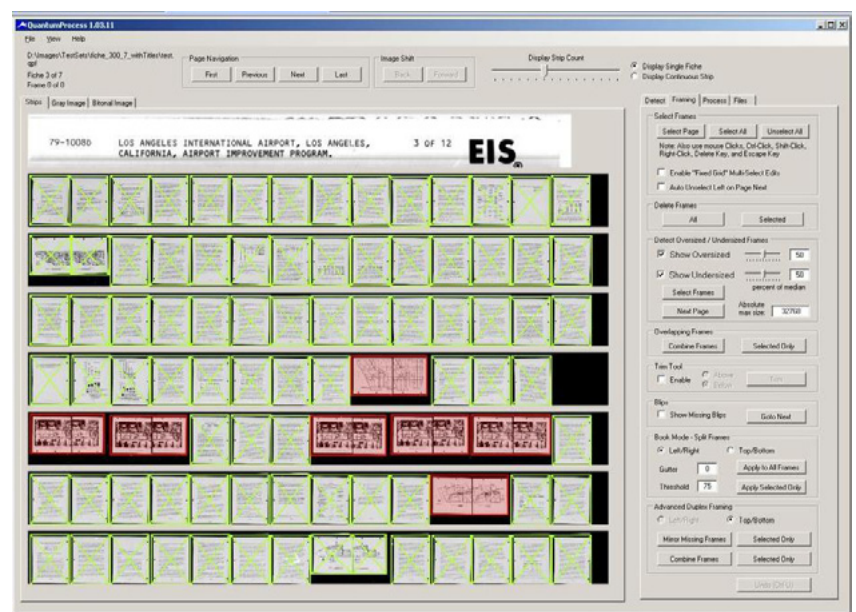
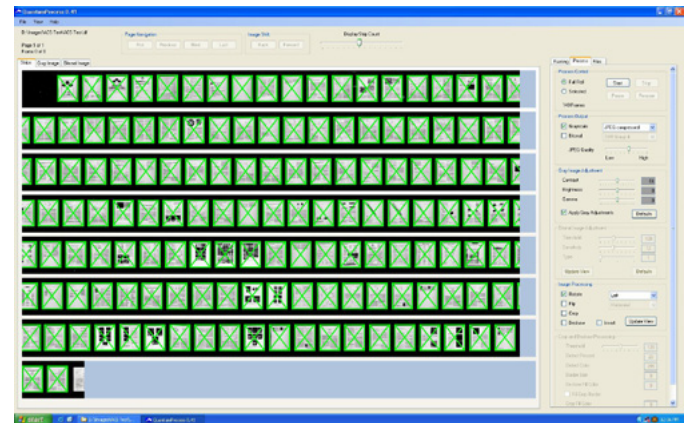
Re-Detect Frames

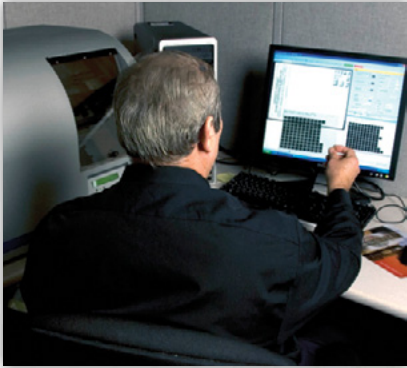
A useful option when different quality film is spliced together on a single roll, typically making it difficult for auto frame detection to find a group of images

Quality assurance at your fingertips

View your entire roll of film within **QuantumProcess** for image quality and frame accuracy inspection.

In this highly technical but simple-to-use quality control function, make changes after the film strips are saved and know that they'll hold...without compromising the original scan.





Don't Reload

Using **QuantumScan**, the need to reload has been completely eliminated. The **MACH-series** microfilm and microfiche scanners scan an entire roll of film in minutes, detecting all images and flagging those that need review. Whether reviewing an entire roll or just suspect frames, the operator has an array of manual and automatic features to ensure 100% accurate image detection.

Don't Rescan

QuantumProcess provides the opportunity to edit the image detection and make changes to both grayscale and bi-tonal image quality without ever having to reload a roll of film. Strips can be stored for the life of a project, allowing the user to make as many changes as necessary to deliver the highest quality images in the market.

Turn "Ugly" Into Useful

Quantum software has opened the world to "ugly" or poor quality film, which can now be scanned without missing images. Using **QuantumProcess**, these images can be scanned, processed and rendered as useable images. As a result of this capability, the new digital images can be used to create silver master films for long-term preservation of poor quality or degraded film.



Mekel Technology has been a part of The Crowley Company since 2003 and continues to engineer cutting-edge capture products and software for the future of data preservation.