



## Rogue DNA Forensic Lab

### Fingerprints & Face – Paper to Electronic Conversion

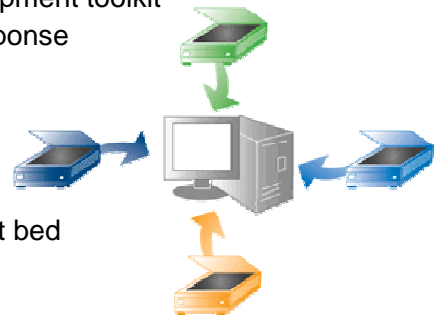
Rogue DNA's Forensic Lab suite (RFL) provides the following functions. Data can be seamlessly exchanged between each module:

- Face recognition & partial face recognition
- Fingerprint recognition and compliance with biometric standards
- Fingerprints & facial images – conversion of paper prints to electronic
- Biometric Application Server
- Document authentication

AccuScan is an add-on module for the NISTPack biometric editor that enables the use of commercial-grade flatbed scanners to scan paper ten-print cards and save them to disk. It will also convert photographic facial images to electronic. For high-speed automated batch processing AccuScanMB enables "multi-batch" fingerprint card scanning through a parallel configuration of up to six off-the-shelf, automatic document feeder flatbed scanners. If each scanner can process up to 160 500-ppi cards per hour or 48 1000-ppi cards per hour, with six scanners running in parallel nearly 1000 500-ppi cards can be processed every hour. Like AccuScan, AccuScan MB provides Appendix F-certified scanning at 500 and 1000 ppi, and maintains AccuScan's configuration, cropping functionality, and API.

#### Key Benefits

- NISTPack provides a full FBI and NIST compliant development toolkit from inked paper cards to electronic submission and response management
- Greatly shortens development time of card scanning solutions
- Uses off-the-shelf document scanners
- Eliminates all work associated with FBI certification of flat bed scanners
- Easy to maintain and customize for each agency



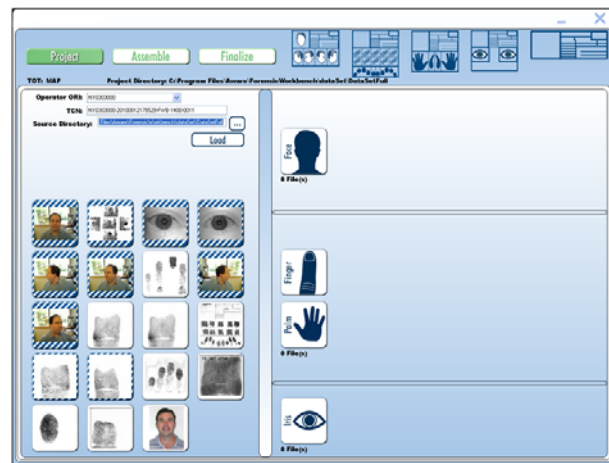
NISTPack with AccuScan provides a fully programmable and configurable software application that enables systems integrators to design and deploy a ten-print card scanning system that is a fully FBI compliant solution.

## The combined software capabilities provide the following:

- Fingerprint image quality measurement and Q/A
- Read, write, view, edit FBI EFTS civil applicant and criminal ten-print transactions
- Validate and error check the EFTS submission files (electronic ten-print cards) and the EFTS electronic responses (ident, no ident or error) from the FBI
- FBI certified WSQ compression and decompression
- FBI IQS Appendix F compliance for a scanner

The screen on the right shows the user interface that includes NISTPack, AccuScan and SequenceCheck. The individual fingerprint, face, and iris images have been cut out of the larger scanned image, compressed with WSQ and inserted into the EFTS file. An image quality score is recorded for each image.

The dialog box in the lower left hand corner of the user interface shows the match scores of each roll image to its impression mate (slaps or thumbs). The source code for this program is provided as part of the development kit.



## Card Template Tool

The scanning of inked cards presents a number of technical challenges. Different agencies frequently maintain and utilize a unique set of fingerprint cards and forms. Some jurisdictions have five or six different cards, with each card used for a different purpose.

AccuScan manages this challenge through an XML-based configuration file that holds the layout details of the original paper document. This file describes the size and location of each fingerprint image. The AccuScan SDK includes a utility (executable and source) that enables the easy creation of these XML configuration files. The process includes scanning a blank or populated original card, loading it into the Template Tool, and then tracing the fingerprint image boxes. After all image regions of interest have been selected, the file is saved and can be used by an AccuScan runtime application.