Standard for Friction Ridge Automation Training (Tenprint)

1 Automation Training for Friction Ridge Examiners/Trainees

Friction Ridge Examiners/Trainees working with friction ridge automation shall receive training that provides sufficient knowledge and skills necessary to knowledge of friction ridge automation technology. This training shall address friction ridge skin impressions recorded and processed digitally.

2 Qualifications

2.1 Friction Ridge Examiners/Trainees require knowledge, skills and the ability to recognize identifiable friction ridge detail before automation training.

2.2 Instructors must possess the knowledge, skills, and abilities for the courses being instructed.

3 Image Capture and Transmission

The knowledge of livescan, card scan, and import/export technology.

3.1 The knowledge of friction ridge detail on three dimensional skin is digitally captured as a two dimensional image.

3.2 The ability to differentiate between the various types of friction ridge recordings, e.g., rolled, flat, and slap/simultaneous impressions.

3.3 The ability to differentiate between the various methods of friction ridge capture, e.g., livescan, ink.

3.4 Knowledge of the process needed to achieve good quality friction ridge images, and recognize point of capture variables, e.g., clean fingers, clean platen, proper rolling speed and movement, scan resolution, compression rate, equipment maintenance and calibration.

3.5 Awareness of what happens to the digital image file after capture.

3.6 Knowledge of the basic concepts associated with ANSI/NIST, IAFIS EBTS, state and local standards for exchanging known friction ridge impressions.

3.7 Knowledge of live scan operator activities, e.g., booking officer techniques, exception handling (amputations, bandaged, etc.), moisturizers, and rescans.

3.8 Knowledge of the different manual recording techniques of friction ridge detail, e.g., ink, inkless.

3.9 Knowledge of individual agency live scan operator training policies.

4   Automated Fingerprint Identification System (AFIS). The term AFIS as used herein includes automated systems for any friction ridge area.

Required objectives related to tenprint operations

4.1 Knowledge of AFIS processes related to acquisition, classification, searching, storage, retrieval, and identification of tenprint records.

4.2 Knowledge of AFIS workflow from record entry through final reporting and storage.

4.3 Knowledge of friction ridge search criteria, e.g., designated finger search, how many fingers, palm areas.

4.4 Knowledge of the importance quality assurance has on maintaining the integrity of friction ridge data.

4.5 Knowledge of quality controls which ensure completeness, image quality and data integrity.

4.6 Knowledge of individual agency's system and component maintenance and calibration policies.

4.7 Knowledge of system requirements and limitations including text data fields, finger or palm print (image) quality, finger sequence and image replacement, image rotation, and tolerance for pattern interpretation.

4.8 Knowledge of the basic concepts associated with minutiae recognition, placement, rotation, ridge counts and other minutiae factors related to searching and matching.

4.9 Knowledge of the limitations of system interoperability.

4.10 Knowledge of the ability to integrate friction ridge image, mugshot, tattoo/scar/mark image, minutiae, other biometrics, as well as personal descriptors, and criminal history information.

4.11 Knowledge of search parameters, pattern classification and referencing, minutiae extraction, search algorithms, the significance of the range of candidate scores, threshold scoring, candidate list comparison and matching.

4.12 Awareness of "lights out" process.

4.13 Knowledge of the various search options among databases within a system.

4.14 Knowledge of logical search progression, i.e., local AFIS first, then state, regional, national and international.

4.15 Knowledge of the search result contents, e.g., ranked order, unique identifier, finger or palm position.

4.16 Knowledge of the differences between AFIS digital images and original friction ridge impressions, e.g., potential loss of quality due to compression of image.

4.17 Knowledge of printer technology limitations versus examinations from original friction ridge documents, e.g., paper quality, inked fingerprint cards.