## **BioLink AFIS** Automated Fingerprint and Palm Print Identification System

BioLink AFIS is an automated fingerprint and palm print identification system designed for the creation and maintenance of large databases of tenprints, fingers, and palm latents collected from crime scenes.









#### **Product Overview**

BioLink AFIS offers local, regional, and national law enforcement agencies a robust system to solve a wide range of vital tasks:

- Personal identification by fingerprints and palm prints
- Real-time identification by a single print when performing in-the-field identity checks
- Identification of the unknown dead
- Ascertainment of implication in past crimes
- Consolidation of crimes committed by one and the same person

BioLink AFIS is capable of supporting tenprint databases ranging from tens of thousands at the local level to millions of prints at the national level. The system utilizes state-of-the-art technical and methodological solutions. It operates on powerful servers and disk RAID-arrays, Oracle database, Unix/Linux -based workstations and servers, and standard network protocols.

#### **Features**

BioLink AFIS/APIS is a multifactor, scalable, fully NIST- and FBI-compliant system that allows to perform a wide range of tasks for processing, editing, searching, retrieving, and storing fingerprint images and subject records.

✓ Real-time "one-to-one" verification of persons by their livescan fingerprints

 $\checkmark$  Prompt identification of persons detained in the course of investigatory actions by various law-enforcement and security agencies, including the identification of fugitives

 $\checkmark$  Identification of persons sought by Interpol or other international law-enforcement agencies



✓ Identification of persons who are unable to provide information about themselves due to a mental illness, accidents, etc.

- ✓ Identification of criminals by the latent prints collected from crime scenes
- ✓ Identification of unknown deceased persons, including victims of accidents and natural disasters

### **System Features and Architecture**

BioLink AFIS is a flexible, responsive, and scalable solution that can be implemented in projects of any size: from a single desktop AFIS to a distributed network for local, regional, and national systems. The system is based on the client-server model enabling workstations to independently send requests to the server.



#### Local AFIS

Designed for database capacity of 20,000-90,000 tenprint cards. Generally, this type of systems includes 1-3 workstations connected over a standard local area network. They can be installed in small jurisdictions (towns, cities, etc.).

#### **Regional AFIS**

Designed for operating with 100,000–10,000,000 records. This system can be used to automate fingerprint and palm print record collections in larger administrative districts (metropolises, regions, counties, states, etc.).

#### **National AFIS**

Designed to automate the maintenance and search of the largest databases on a national scale. A National AFIS includes a federal central site networked with regional central sites.

#### **Product Key Features**



#### Input (Enrollment) of electronic tenprint cards

Input of tenprints into the system is achieved via LiveScan devices. During this process, the system defines the print boundaries, integral features (loops, deltas, whorls, types of patterns), minutiae points (beginnings or endings of papillary lines, bifurcation of lines, islands, spurs, etc.), as well as poor quality areas.

#### Input of latent prints collected from crime scenes

Input of latent prints can be performed from photos or transparent dactyloscopic films through flatbed scanners, as well as from any other data storage via video input device. Latent print encoding is done in an interactive mode, i.e. an operator can control any stage of the encoding process and, if necessary, correct either the integral features allocation or the pattern skeleton.

#### Different types of search

BioLink's automated fingerprint identification system performs the following types of searches: tenprint/latent, tenprint/tenprint, latent/tenprint, and latent/latent. Automatic creation of a search query with standard query parameters can be set up for every new tenprint and latent print entry. A search query with either standard or arbitrary parameters can also be made for any tenprint and/or latent print from the existing database.





#### **BioLink DS-30N Livescan Fingerprint Device**

Compact and ergonomic BioLink DS-30N uses optical technology that enables producing high quality fingerprint and palm print images even of moist fingers and palms.

#### **BioLink DS-45 Livescan Fingerprint and Palmprint Device**

Designed for capturing rolled and plain fingerprints and palm prints (including the so-called 'writer's palms'), this device provides best-in-class quality and functionality.

# BioLink DS-45M Livescan Fingerprint and Palmprint Device

BioLink DS-45M is equipped with a built-in color LCD display that enables you to control the process of taking fingerprints and palm prints (the operator does not use the monitor of the workstation – it replaces it with the scanner's display that helps the operator to concentrate upon the fingerprinting process only)

✓ Elastic contact surface (membrane) of the scanner optic units enables the more accurate capture of ridge patterns, even of the socalled "problem" fingers, i.e. with excessively dry skin, with a rubbed-off or wornout and low-relief pattern)

✓ Moisture discriminating optics ensures high-quality fingerprint and palm print images of sweaty hands

✓ Our program methods of image deblurring almost completely compensate for the effect of blurred or smeared pictures that are often met when taking rolled fingerprints

### **BioLink Remote AFIS Stations**



#### **BioLink MKDS 40**

BioLink MKDS 40 is designed to capture all the needed information during the process of booking subjects under any environmental conditions and for realtime identification. All the components of BioLink MKDS 40 are incorporated in two ruggedized transportable cases.

With one of these cases, containing a notebook, a fingerprint scanner and a camera, you can quickly and accurately create high quality electronic tenprint cards and verify the identity of subjects in the field.

#### **BioLink Mobile Versatile Professional Complex**

Among the benefits of this mobile complex is its versatility, making it useful for many tasks, and compactness enabling easy transportation.

BioLink Mobile Versatile Professional Complex is especially designed for forensic technicians to provide on-the-spot access to automated fingerprint/palmprint databases and resources.

BioLink Mobile Versatile Professional Complex is able to operate independently, i.e. as a stand-alone BioLink AFIS, booking station or express ID check terminal, or to be a part of a network operating as a remote BioLink AFIS station.



