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AFIS Information Sheet
Automated Fingerprint Identification System

Function

The Automated Fingerprint Identification System AFIS helps in the identification of persons and crime scene evidence using the biometric characteristics of fingerprints and palm prints. The national AFIS database has been operated by the Federal Office of Police (Fedpol) since 1984 and is indispensable to Switzerland's security due to its proven quality and efficiency.

Background information

Fingerprints are the most reliable, rapid and inexpensive way to identify individuals because the shape of the papillary ridges of fingers and palms are unique to every person and cannot be manipulated. The associated science is known as dactyloscopy (Greek: 'daktylos' = finger and 'skopein' = to examine). The AFIS database facilitates personal identification by comparing new prints with those already stored in the system. However, it is the fingerprint expert who is responsible for the final verification.

Applications

The type of identification method used depends on the situation for which it is required:

Type of method	Objective	User / Field of application
2-finger prints (both index fingers)	Very fast personal identification (within a few minutes)	Police Border Guard Embassies *(visa applications),* State Secretary for Migration *(asylum section)*
10-finger prints (without palms)	Personal identification and investigations on unidentified trace evidence from crime scenes	State Secretary for Migration *(asylum section)*
10-finger prints (with palms)	Personal identification and investigations on unidentified trace evidence from crime scenes	Police[1] *(police fingerprinting)* Federal Customs Administration
Traces from crime scenes	Identification of trace evidence from crime scenes	Police[1] *(securing evidence at crime scenes)*

[1] Including exchange with foreign authorities, if legally permissible

Process

Fingerprints and palm prints are taken using either a high-definition scanner or, in seldom cases, ink and a fingerprint sheet that is subsequently scanned into the database. The data is then transmitted by a secure connection to fedpol's Biometric Services Division. After a quality check, the identification features of the prints are determined and the AFIS database runs a search. If the system turns up a match, the result is verified manually. The anonymised search result is then matched to the corresponding personal and case data and sent to the client in a secure electronic form. The search result can either incriminate or clear a person of suspicion.

Example of fingerprint scanning using a mobile AFIS terminal:

Data protection

The AFIS database only stores fingerprint data. Personal data and case-related details are physically removed from the prints and stored in a separate database. A connection between the two sets of data is only made when a search turns up a hit with a print already stored in the database. This procedure ensures compliance with data protection requirements.[2]

Statistics[3]

The AFIS database currently contains about 34,000 2-finger prints, 936,000 10-finger prints and 132,000 unidentified crime scene traces.

Approximately 165,000 database searches are made each year. Around 78,500 of these are personal identification checks, including 3,560 that turn up a match relating to unidentified crime scene evidence.

Further information

http://www.fedpol.admin.ch/fedpol/en/home/sicherheit/personenidentifikation.html

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[2] Ordinance on processing biometric identification data (SR 361.3)

[3] As at: 31.12.2015