Biometrika

Fx2000
Fingerprint Scanner

Fx2000 is a FTIR optical fingerprint scanner, which, thanks to its powerful 32-bit Risc CPU is capable of performing in hardware several useful tasks, thus improving security, efficiency and usability. The accurate optical design allows high quality images to be captured and a large finger area to be sensed. Fx2000 "state of the art" encryption algorithms make the data transfer extremely secure.

Used in conjunction with BiometriKa fingerprint recognition software, Fx2000 is one of the most powerful and cost effective solutions for identity-verification / recognition.

Technical specifications

Fingerprint Scanner
- Optical, high resolution (569 dpi)
- Sensing Area (0.98×0.52 inches)
- CPU 32 bit RISC

Performance
- Transfer Rate: 10 fps
- Identity verification < 1 second

Features
- Automatic finger detection
- 128-bit encryption
- Blind acquisition
- Smart Card (version SC only)

Interface and Development
- USB interface (2.0 and 1.1)
- Supported OS: Windows (98, 2000, XP, Vista), Linux
- FX3 SDK (available in Light version for image acquision only)

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Resolution	569 dpi
Sensing area	$0.98'' \times 0.52''$ The large sensing area improves recognition performance (since a larger number of minutiae can be detected and matched) and greatly reduces the occurrence of false rejections caused by incorrect finger placements
Frame Rate	10 frames per second are captured and pre-processed by the sensor hardware.
Auto Detection	Fx2000 can operate an autonomous detection of the finger presence on the sensor platen.
Encryption	The sensor implements a number of encryption algorithms and can operate in several distinct modalities, which are negotiated with the PC at initialization time. 128-bit "state of the art" symmetric algorithms are used together with non-repeatable keys, to secure the communications with the PC.
Blind Acquisition	Live showing the captured images is a valid help at acquisition time, in order to better adjust the finger position and pressure. On the other hand, drawing fingerprint patterns in "clear" on the screen can be dangerous from a security point of view. Fx2000 provides an excellent solution to this problem, by computing in hardware the finger silhouette and contrast which are sent to the PC for live-presentation. No real fingerprint image needs to be sent or visualized "in clear".
Interface	USB 2.0 and 1.1
Operating Systems	Windows 98/98ME/NT/2000/XP, Linux, Mac OS X (under development)
Smart Card	The Fx2000 scanner (SC version) integrates a versatile PC/SC compliant Smart Card reader. The reader can be used by every application (including third party applications) to read/write most of the commercially available Smart Card (and Memory Card).