Bio Sentry ® Fingerprint Authentication device

Introduction

The “World Book Multimedia Encyclopedia” article on fingerprinting has this extract: "**Fingerprints provide the most reliable method of identification because no person's prints are identical to those of another individual. Even identical twins have different fingerprints**."

We are living in a time where technology has made life easy and comfortable. Ironically, there are security-related side effects like hacker-prone web sphere, fraud, digital theft, password hacking, fake authentication and more.

In today’s fast emerging e-Transaction economy, the mere knowledge of a Password or possession of some magnetic card, proximity card or smart cards obviously is not enough to deter fraud.

The answer is *Sentry Biometrics Fingerprint Device*

In India, WYSE Systems has pioneered this technology in the form of Sentry Biometrics Fingerprint Device. This hi-security device ensures that no one except YOU can access an application. The compact hardware device records your fingerprint at the time of enrolling for a hi-security application. Later it verifies the same whenever you access that application. This level of authentication is 100% tamperproof, as the fingerprints of even twins are never the same. Sure enough, Sentry Biometrics Fingerprint Device is the first and last word in human authentication.

Fingerprint sensors are based on two types of technologies:

Optical :
The technology is based on reflection changes at the spots where the finger papilar lines touch the readers surface.
The finger is placed on a coated platen, usually built of hard plastic but proprietary to each company. In most devices, a charged-coupled device (CCD) converts the image of the fingerprint, with dark ridges and light valleys, into a digital signal. The brightness is either adjusted automatically (preferable) or manually (difficult), leading to a usable image.

Capacitance:

The silicon sensor acts as one plate of a capacitor, and the finger is the other. The capacitance between platen and the finger is converted into a 8-bit grayscale digital image.

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USB based Sentry Fingerprint Device
The USB based Sentry Fingerprint Device will be connected on USB port of the PC. USB based Sentry Fingerprint device is easy to integrate with any software application through the API's provided along the SDK.

Features and Specification:
- Capacitive solid state device.
- 500 DPI Resolution.
- Sensor area 1.28cm X 1.50 cm.
- 256X300 Pixel Sensor array
- Exceptionally Hard abrasion and chemical protective coating.
- USB and Ethernet connectivity.
- Compressed Template size 400 to 1024 bytes (depending upon number of minutia detected)
- World-class detection and matching algorithms.
- Complete SDK with documentation and sample code.
- Low Power Device
- Verification time is less that 2sec to match finger print within a database of 1000 Fingerprint templates.

Software Development Kit for Sentry Fingerprint Authentication System:

The SDK provides the complete software library supporting image capture, image enhancement, verification and quality assessment routines.

SDK System Requirements
To install the SDK, you need the following hardware and software:
- Sentry USB Fingerprint Module
- Pentium-class PC or greater.
- Windows 98 SE /ME /2000/XP
- 16 MB RAM or greater
- 5 MB or greater available hard disk space.
- USB port