

ANSIKit SDK

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MINEX-Certified Fingerprint SDK

Application developers and system integrators use ANSIKit SDK to develop ANSI/INCITS 378 or ISO/IEC 19794-2 compliant applications for governments and public administrations. ANSIKit SDK extractor and matcher were certified ANSI/INCITS 378-compliant by US Government National Institute of Standards Technology (NIST) in the Minutiae Interoperability Exchange Test (MINEX). More on MINEX: <http://fingerprint.nist.gov/minex/>.

Features and Benefits

- ANSI/INCITS 378 Generator

MINEX-certified minutiae feature extractor and template generator. Product ID: CBEFF PID 00350A01.

- ANSI/INCITS 378 Matcher

MINEX-certified template matcher. Product ID: CBEFF 00350B01.

- IEngine™ core

Innovatrics world-class algorithm ensures speed, accuracy and reliability of the template extraction and matching. The algorithm uses only fixed point operations, resulting in high speeds on less powerful platforms as well.

- PC and Mobile platforms

ANSIKit SDK exists in two versions depending on the target platform:

- ANSIKit PC SDK for Intel Pentium, Win32 platform

- ANSIKit Mobile SDK for Intel PXA, WinCE platform

Both SDK versions are the same; the only difference is the target platform on which they are compiled.

How it works

Step 1. Fingerprint Image Acquisition

ANSIKit SDK takes as input a fingerprint image (.BMP), which can come from any scanner. For a complete compliance of your complete application, make sure you use a FIPS201 compliant fingerprint scanner. Innovatrics has created partnerships with market leading vendors who provide the following FIPS201 compliant fingerprint scanners:

UPEK TCS1SecuGen HamsterIVCrossMatch Verifier310

Important: When purchasing the scanners, ask the vendor for image acquisition API. You will need it to extract the fingerprint image from the scanner.

Step 2. ANSIKit SDK Template Extraction

ANSIKit SDK Generator transforms the fingerprint images to ANSI compliant templates.

Step 3. ANSIKit SDK 1:1 Verification

ANSIKit SDK Matcher takes as input two ANSI compliant templates and returns corresponding similarity score.

The API of the ANSIKit SDK is based on MINEX API specifications designed by NIST. All functions in ANSIKit SDK library are thread-safe.

Utilization

Using standards-compliant generator and matcher ensure interoperability between vendors. For instance, interoperability is necessary where vendor A issues ID cards to government employees and vendor B provides access control devices to their facilities. Typically for these situations, ANSIKit SDK can be used in two scenarios:

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- Enrollment Station
- At registration ANSIKit SDK Generator extracts standard template from user's fingerprint image. The standard template is then stored on user's ID card.
- After card issuance, ANSIKit SDK Matcher compares the template stored on the card with user's live finger to validate the registration procedure.

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- Verification Station

SDK is used to verify users against their ID cards. The verification can be run on a PC station, on a PDA or embedded in access control device.

Typical applications

MINEX compliance is required by government and public administration programs, such as Personal Identity Verification (PIV), or Transportation Worker Identification Card (TWIC). Typical applications are:

- Enrollment and Card issuance stations
- Identity Card verification on PC and mobile stations
- Physical Access Control terminals
- Logical Access Control / Password replacement applications

MINEX compliance

"The Minutiae Interoperability Exchange Test (MINEX) is an ongoing evaluation of the INCITS 378 fingerprint template. The test program has two mandates:

- To provide measurements of performance and interoperability of core template encoding and matching capabilities to users, vendors and interested parties.
- To establish compliance for template encoders and matchers for the United States Government's Personal Identity Verification (PIV) program."

» [Learn more...](#)

Software package

Both ANSKit PC SDK and ANSKit Mobile SDK package contains:

- ANSKit SDK DLL libraries:
- MINEX-certified extractor (CBEFF PID 00350A01),
- MINEX-certified matcher (CBEFF PID 00350B01),
- Documentation (PDF, CHM),
- 1 Sample with source code in Microsoft Visual C++,
- Innovatrics License Manager.

Technical specifications

Specification
ANSKit PC SDK
ANSKit Mobile SDK

Processor
Intel Pentium
Intel XScale (StrongARM) 270, 255

Operating System
Win32
WinCE (Windows Mobile 5.0)

Programming languages
C/C++
C/C++

Available API
C/C++
C/C++

Extraction speed

100ms
300ms

Matching speed

10ms
30ms

Image I/O

BMP
BMP

Image Compression

WSQ
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Fingerprint Template Standards

ANSI/INCITS 378-2004, ISO/IEC SC73/19794-2
ANSI/INCITS 378-2004, ISO/IEC SC73/19794-2

Sensor Compatibility

Any available sensor
Any available sensor

Mobile device support

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HP iPAQ hx2750, HP iPAQ hx2790, DAP CE3240, DAP CE3240B, Intermec 751G

Performance and Warranty

The accuracy of Innovatrics ANSKit SDK has been tested and certified by NIST in the MINEX04 tests. The Innovatrics outstanding performance has been documented in the MINEX04 report available here: http://fingerprint.nist.gov/minex04/minex_report.pdf.

Use or Return policy: Innovatrics offers a money-back warranty, which covers initial 60 days period since purchase of the SDK product.

Prices and Ordering

SDK and license prices are available upon request.

ANSKit SDK may be ordered directly from Swift Biometrics by calling, sending an order e-mail through our online form

or by ordering in our online catalog.