Innovatrics
YOUR BIOMETRIC PARTNER

Innovatrics software development kits are the world's fastest fingerprint components available today. Effective, flexible, and the highest quality, the components below exemplify our commitment to enabling our clients' unique requirements:

IDKit SDK - designed for 1:N matching

ANSI & ISO SDK - NIST MINEX and STQC certified fingerprint verification

Segmentation SDK - fingerprint image segmentation and quality control

Match on Card (MoC) - fingerprint verification on smart cards

IDKit SDK

IDKit SDK is a fingerprint Software Development Kit for high-speed 1:1 and 1:N matching utilizing Innovatrics' proprietary fingerprint templates.

Features & Benefits

IDKit is unparalleled in speed, performance and accuracy. Offering quick and easy integration in the field, IDKit features easy end-client adoption with a low TCO and high ROI. Below are some of the values and benefits you can experience with the IDKit SDK:

- **Blazing performance** - IDKit is the fastest fingerprint SDK on any platform
- **Stunning accuracy** - IDKit utilizes a combined minutiae and pattern matching technique to ensure best accuracy

- **Ease of deployment** - IDKit is entirely software; no dongles are required
- **Fingerprint quality** - IDKit calculates the quality of an incoming fingerprint image before accepting it, which increases the reliability of the software
- **Sensor independence** - works with all fingerprint scanners that can provide a raw image
- **Brilliant support** - our highly trained support team is available at any time

What makes it so easy to integrate IDKit SDK?

As a stand-alone software solution, integration couldn't be easier. Simply call our libraries from your application and you'll be able to easily extract fingerprint templates, compare them with fingerprints stored in a database, and return a result of the comparison. With the IDKit SDK, you get to focus on what's important - your application - and leave the biometrics expertise to us.

> OS - Windows (32-bit, 64-bit): 2000, XP, Vista, 7, Phone; Linux (32-bit, 64-bit): Red Hat, Debian; Android 2.3.4 and higher; iOS 6 and higher; Embedded Linux *other upon request ▸ Coding environment - C, C++, VB, C#, Java ▸ Flat-file database (SQLite3) ▸ Template Size -1kB ▸ Encryption - AES (256bit) ▸ Fingerprint input - BMP, RAW, JPEG, JPEG2K, GIF, PNG images ▸ Image Compression - WSQ ▸ .NET & Java connectors including sample applications

ANSI & ISO SDK

ANSI & ISO SDK is the ideal solution for developers that need to include extraction and matching of ANSI and ISO fingerprint templates in their application. Utilizing an easy-to-implement approach, developers can quickly integrate vendor-neutral fingerprint recognition technology that works with any image from fingerprint scanner.

Features & Benefits

Along with seamless integration, ANSI & ISO SDK provides a number of powerful features and benefits including:

- Extraction and Matching of fingerprint templates in ANSI/INCITS 378, ISO 19794-2 and ILO SID standard
- Measurement of fingerprint Image Quality for enhanced recognition rates
- Conversion from and to ISO Compact Card Template

- Support of ISO 19794-4 fingerprint image standard
- Compliance with US Government's Personal Identity Verification (PIV) standards
- Certified in STQC (Standardisation Testing and Quality Certification Directorate designed for UIDAI)

MINEX Minutia Exchange

STQC Certification

What makes it so easy to integrate ANSI & ISO SDK?

ANSI & ISO SDK is highly compatible, flexible, lightweight and user-friendly software component. Simply install the component with your application, reference it in your code to instantiate it, and then just call the included functions. It's that easy. Integration of ANSI & ISO SDK is the easiest way to comply with all major industry biometrics standards and gain interoperability of stored data.

> OS - Windows (32-bit, 64-bit): 2000, XP, Vista, 7, Phone; Linux (32-bit, 64-bit): Red Hat, Debian; Android 2.3.4 and higher; iOS 6 and higher; Embedded Linux *other upon request ▸ Coding environment - C, C++, VB, C#, Java ▸ .NET & Java connectors including sample applications

Segmentation SDK

Collecting fingerprint images for government, civil applications, immigration, or criminal databases typically involves capturing all ten fingerprints. Innovatrics Segmentation SDK quickly separates the image into individual figures, assigns sequence, and provides a quality score for each individual finger.

Automatic segmentation of slap images

Automatic detection of hand orientation

Innovatrics Quality Score

Features & Benefits

The Segmentation SDK includes a number of powerful features and benefits including:
- Background noise removal
- Support of different image format inputs and image conversion (WSQ, BMP, PNG, JPEG2K)

- Ability to set bit rate for WSQ and JPEG2K formats
- Fingerprint quality map retrieval
- NFIQ - NIST Fingerprint Image Quality score retrieval
- Dry / Low pressure and wet / high pressure finger detection
- Build in support for 2-slap and 4-slap fingerprint scanners

What makes it so simple to integrate Segmentation SDK?

With Sgmentation SDK, it's easy to add fast fingerprint image segmentation and fingerprint image quality control into your application.

- OS - Windows (32-bit, 64-bit): 2000, XP, Vista, 7, Phone; Linux (32-bit, 64-bit): Red Hat, Debian; Android 2.3.4 and higher; iOS 6 and higher; Embedded Linux *other upon request ■ Coding environment - C, C++, VB, C#, Java ■ Fingerprint input - BMP, RAW, JPEG, JPEG2K, GIF, PNG images ■ Image Compression - WSQ ■ .NET & Java connectors including sample applications

MoC (Match on Card)

Innovatrics Match on Card implementation provides a flexible and secure solution for 1-to-1 fingerprint verification directly on the card (with up to 10 fingerprints per card). Available for Java cards and .NET cards or as a native implementation for smart cards with any other OS.

Features & Benefits

MoC (Match on Card) includes a number of powerful features and benefits including:
- **Certifications** - ranked among the most accurate algorithms tested in MINEX II by NIST, Innovatrics is the only provider that offers a solution for both Java Card and .NET Card
- **High accuracy and speed** - MoC leverages the industry-proven Innovatrics fingerprint matching algorithms
- **Standards compliance** - built with the Java Card specification in mind, MoC improves portability and future usage without recompilation

- **Small footprint** - lightweight solution able to run on cards with limited hardware performance
- **Compatibility** - designed to work with ANSI & ISO SDK and other SDKs from the Innovatrics portfolio
- **Brilliant support** - highly trained support team available at any time
- **Experienced consultants** - capable of assisting on everything from design to development to system deployment

What makes it so simple to integrate MoC?

Innovatrics MoC (Match on Card) solution dramatically improves the security of smart-card authentication by storing fingerprint data directly on the card, thereby eliminating any need for the user to enter a PIN. What's more, the Innovatrics MoC solution can be implemented at any time in a smartcard authentication lifecycle - whether during an existing deployment or when planning for a new one.

- Code size: < 8192 bytes ■ RAM size: < 600 bytes ■ Template size: < 1 kB per fingerprint ■ Template format: ISO 19794-2 (Compact CardEncoding) ■ Provided as Java shareable interface object library ■ Includes sample application (Java applet and PC client) ■ Support of up to 10 fingerprints per card ■ Native implementation also available