U.are.U® SDK for Windows®

**PRODUCT DESCRIPTION**

The U.are.U Software Development Kit (SDK) for Windows enables integrators and developers to quickly add the power of fingerprint-based authentication to their Microsoft® Windows-based applications. Crossmatch™ offers powerful SDKs which feature accurate, high performing fingerprint authentication algorithms.

**EASY TO USE TOOLKITS**

In only a few hours, developers can easily integrate fingerprint authentication into their application and have access to a full range of authentication services for their PC, embedded computer, POS terminal or server solution. Sample code is included to illustrate the capturing of a fingerprint, extracting a fingerprint template and matching fingerprint templates. Simple architecture diagrams, programming workflow illustrations and detailed documentation enable fast integration of powerful fingerprint biometrics into customer-friendly applications.

**FINGERPRINT RECOGNITION ENGINE**

The FingerJet™ biometric matching engine provides MINEX-certified feature extraction, as well as enrollment. The FingerJet matching engine, combined with U.are.U Fingerprint Readers, offers accurate fingerprint recognition, low false accept and false reject rates (FAR/FRR) coupled with fast execution time.

**STANDARDS SUPPORT**

The U.are.U SDK for Windows fully embraces image, template and compression standards. In addition, the FingerJet matching engine features a MINEX-certified extractor. This provides developers with the flexibility to make unfettered choices of matching algorithms and the ability to comply with a growing customer requirement for standards support.

**ABOUT CROSSMATCH**

Crossmatch helps organizations solve their identity management challenges through biometrics. Our enrollment and authentication solutions are trusted to create, validate and manage identities for a wide range of government, law enforcement, financial institution, retail and commercial applications. Our solutions are designed using proven biometric technologies, flexible enrollment and strong multi-factor authentication software, and deep industry expertise. We offer an experienced professional services capability to assess, design, implement and optimize our identity management solutions for a customer’s individual challenges. Our products and solutions are utilized by over 200 million people in more than 80 countries.

Learn more at www.crossmatch.com

**USE CROSSMATCH FINGERPRINT BIOMETRICS TO:**

- Authenticate users reliably and conveniently
- Prevent fraud
- Simplify and enhance security
- Streamline business processes
- Address compliancy

U.are.U SDKs provide tools for developers to create a new generation of commercial and internal applications delivering the convenience, security and biometric assurance of fingerprint authentication.

From time and attendance to process control, point of sale and business applications, U.are.U SDKs allow developers to quickly integrate fingerprint authentication into their software and hardware designs.
## SPECIFICATIONS

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<tr>
<td>Programming Interface</td>
<td>C, C++, C#, Java®, VB .NET, Active X®/COM and JPOS/OPOS</td>
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<tr>
<td>User Interface</td>
<td>Customizable user interface</td>
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<td>Fingerprint Registration</td>
<td>Developer creates own custom application</td>
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| Fingerprint Readers      | • U.are.U 4500 Series  
                          | • U.are.U 5000 Series  
                          | • U.are.U Fingerprint Keyboard |
| Template Interoperability| Template format compatible with:  
                            • One Touch® for Windows® SDK, all previous editions  
                            • One Touch for Linux® SDK, all distributions  
                            • One Touch I.D. SDK (fast identification)  
                            • DigitalPersona Gold and Gold CE SDKs  
                            • ISO/IEC 19794-2:2005, Biometric data interchange format  
                            • ANSI/INCITS 378-2004 Finger minutiae data format |
| Fingerprint Image        | • DigitalPersona Fingerprint Image Format  
                            • ISO 19794-4:2005, Fingerprint Image Standard  
                            • ANSI/INCITS 381-2004. Finger Image Based Interchange Format |
| Biometric Engine         | FingerJet  
                            • MINEX certified extraction engine |
| Security                 | • Fingerprint templates are encrypted by the engine  
                            • The fingerprint reader sets up an encrypted link with the driver to securely transfer the image |
| Database                 | Developer may use a database of their choice |
| Application Deployment   | FingerJet Fingerprint Recognition Software (Runtime Engine) is supplied with the SDK and freely distributable. U.are.U hardware is not included with SDK |

## SUPPORTED FINGERPRINT READERS
- U.are.U 4500 Series
- U.are.U 5000 Series
- U.are.U Fingerprint Keyboard

## SECURITY AND PRIVACY
- Crossmatch has given much consideration to security and user privacy issues. Fingerprint data is encrypted everywhere along the data path offering protection from tampering and maintaining the user’s privacy.

## PROGRAMMING OPTIONS
- The U.are.U SDK for Windows supports C, C++, C#, Java, .NET, ActiveX/COM and JPOS/OPOS language interfaces. In addition, User Interface (UI) features, such as enrollment and customizable verification dialog boxes, eliminate having to create these modules.

## SYSTEM REQUIREMENTS

| Operating System | Windows XP/Vista/Win 7 (32/64), XP Embedded (32-bit), Windows Server® 2003/2008 (32/64-bit), Windows RDP, Citrix/ Terminal Services (local driver), .NET and Java  
                   | Citrix® XenApp Server using the following clients:  
                   | • XenApp Services Site  
                   | • Web client  
                   | • Windows Terminal Services including Remote Desktop Connection |
|-------------------|--------------------------------------------------|
| Hardware          | Pentium®-class processor (or better), CD-ROM drive, USB Port |

*Data subject to change without notice*