ADVANTAGES

IBScanUltimate SDK

One SDK. Every Platform. Every IB Scanner.

IBScanUltimate (IBSU) SDK is designed so that a partner's investment in an IB integration becomes more valuable over time. With a single, stable C API, partners can write an integration once and it keeps working as the deployment moves across operating systems, programming languages, and hardware generations.

Broad, Unified Device Support

The SDK exposes one common capture, quality, and device-management API across IB's entire scanner lineup — Mannix, Kojak, Five-0, Watson, Sherlock, Columbo, and Danno — spanning palm, four-finger, two-finger, and single-finger form factors. Device-specific behavior (LED user feedback, acoustic feedback, finger-count, etc.) is handled through API parameters instead of separate SDKs, so partners can support multiple IB scanner models, including future ones, without branching their codebase.

Runs Anywhere the Deployment Needs To

IBSU ships prebuilt libraries and native build support for:

- **Windows** — x86, x64, and ARM64 (Windows on ARM)
- **Linux** — x86/x64 and ARM (ARMv7 and ARMv8, including Raspberry Pi–class devices)
- **Android** — native and Java/JNI builds, including hardware paired scanning

One integration supports everything from desktop enrollment stations to rugged Android handhelds and low-power Linux devices, with no rewrites when platforms change.

Standards-Based Output, Out of the Box

The IBSU SDK is built on NIST reference libraries, not proprietary standards, ensuring day-one interoperability with downstream identity systems.

- **Template/image standards** — ISO/IEC 19794-2 and -4 (2005 and 2011), ANSI/INCITS 378 and 381, and ISO/IEC 39794-4 — built-in conversion API included
- **Segmentation Engine** — capture and format segmented biometric data adapted for client requirements
- **Compression formats** — WSQ, JPEG, JPEG2000 (lossy and lossless), and PNG, via NIST's NBIS codebase
- **Image quality scoring:** NFIQ, plus a dedicated NFIQ2 plugin (NIST NFIQ2 v2.3.0) with its own C, Java, C#, and Android bindings
- **Presentation attack detection (PAD)**: built-in spoof-detection API and dedicated PAD builds for liveness-aware deployments

Integrates With Your Existing Stack

Rather than locking partners into a single language, IBSU includes sample code and build support for eight development environments.

- **C / C++** (native, console and Windows GUI)
- **C# and VB.NET** (.NET)
- **Java** (desktop and Android/JNI)
- **Python** (including a PySide/Qt GUI sample)
- **Qt/C++** (cross-platform, Windows and Linux)

Each language track includes working sample apps covering single-scan, multi-device, live-capture, and polling workflows, giving teams a practical starting point on any technology stack.

Built for Real-World Integration

- **MOSIP-ready** – enable MOSIP deployments with the integrated MOSIP compatibility
- **Multi-device capture** — open and manage multiple scanners concurrently from a single application, with a dedicated sample demonstrating simultaneous multi-scanner capture
- **Hot-plug aware** — both event-driven (callback) and polling-based device-presence models, so integrators can match whatever architecture their application already uses
- **Rich event pipeline** — granular callbacks across the capture lifecycle (preview, finger detection, quality scoring, acquisition, result) for responsive, real-time UX
- **Pluggable matching** — works with third-party matcher libraries for 1:1/1:N matching without changing the capture integration
- **Robust logging** – accelerates rapid development and debug capabilities across diverse deployment scenarios

The Takeaway

With the robust and flexible capability of the IBSU SDK, IB fingerprint scanners are a low-friction, future-proof choice for identity and biometric workflows!