



MBARK

MULTIMODAL BIOMETRIC APPLICATION RESOURCE KIT

- **Biometric technologies are increasingly being used to authenticate a person's identity.**
- **Most biometric systems are "unimodal," meaning they rely on a single distinguishing physical characteristic for authenticating identity.**
- **A multimodal system that has several sources of information can be more flexible and reliable, helping to overcome problems such as poor illumination or dirty sensors.**
- **But most existing biometric equipment are not interoperable.**
- **Organizations must either purchase a complete system or develop "middleware" to link together applications, which can be very expensive.**
- **The Multimodal Biometric Application Resource Kit, or MBARK, reduces the complexity and costs of implementing such an application.**

MBARK represents a ready response to the *National Biometric Challenge* of developing middleware techniques and standards that will permit "plug-and-play" capabilities for biometric sensors. This Challenge was issued by *The National Science and Technology Council's Subcommittee on Biometrics & Identity Management*.

Provides a consistent user interface

By providing a consistent and user-centered interface no matter how many sensors are being used, MBARK reduces errors and minimizes the need to retrain users on different biometric sensors.

Allows users to recover quickly and easily from mistakes

Allowing users to recover quickly and easily from mistakes increases efficiency by reducing the number of times a biometric must be re-captured.

Provides flexible user configuration

Unlike applications with a fixed workflow, MBARK allows users to change the order, logic, and types of tasks a biometric application can perform.

Adjusts workflow automatically

MBARK will change a user's task list 'on-the-fly,' depending on the user's current situation.

Multitask whenever possible

MBARK uses multi-threading to accelerate long-running operations, such as sensor initialization.

Provides true sensor interoperability

MBARK uses a 'plug-in' style mechanism that allows for true sensor interoperability based on a unified 'electronic' interface, or API (application programming interface.)

Open and free

Anyone is free to modify MBARK source code for their application without intellectual property restrictions.

For comments, questions, or inquiries (including source code), please contact mbark@nist.gov.

Although it is being developed at NIST, MBARK is sponsored by the Standards Portfolio of the Department of Homeland Security's Science and Technology Directorate.

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