

Biometric Consortium 2005 Conference

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Topic: Independent Testing of Iris Recognition Technology

Abstract: Iris recognition has become a viable solution for immigration control, travel and transportation, access control, and national ID initiatives. Understanding the accuracy and usability of commercially-available iris recognition systems is an important component of procurement and deployment decisions.

In May 2005, International Biometric Group delivered the Independent Testing of Iris Recognition Technology (ITIRT) Final Report to the US Department of Homeland Security. ITIRT evaluated the matching accuracy, usability, and interoperability of iris recognition hardware and software from Iridian, LG, Oki, and Panasonic. This session addresses ITIRT results and findings, with a focus on test methodology and implications for operational systems. Among the ITIRT data analyzed are the following:

- False match and false non-match rates
- Failure to enroll and failure to acquire rates
- Transaction duration and level of effort
- Performance variation across subjects, systems, and capture methods

ITIRT represented the largest independently-conducted test of iris recognition executed to date. Over 100,000 iris samples were acquired over a several-week period from 1224 subjects varying in age and ethnicity. Sample acquisition was a controlled and automated process, enabling measurement of enrollment and acquisition rates, transaction durations, and levels of effort. Offline comparisons were executed once all samples had been collected, generating over 2 billion data points for analysis. Both intra-device and cross-device trials were executed to evaluate comparative performance and interoperability.

Biography: Michael Thieme, Director of Special Projects at International Biometric Group, is an authority on biometric technology evaluation, privacy issues in biometrics, and multi-biometric systems. Mr. Thieme leads IBG teams delivering integrated biometric systems and conducting biometric technology evaluations for DHS, TSA, AAMVA, White House OSTP, California DMV, NIJ, and numerous commercial firms.

Mr. Thieme is a co-author of *Biometrics: Identity Verification in a Networked World* and is the primary author of IBG's performance test reports and *Biometric Market and Industry Report* series. He is a member of INCITS Technical Committee M1, Biometrics, and is the editor of U.S. and international draft standards on biometric performance. He also serves as a U.S. subject matter expert to ISO/IEC JTC1 SC37 Biometrics.