

Biometric Consortium 2006 Conference

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Topic: Usability of Biometric Systems

Abstract: With the maturation of biometric technologies and algorithms, it is important to examine the human computer interaction and perform studies related to the usability of biometric applications for identification. While numerous guidelines exist for the design of user interfaces for desktop computers, no such guidelines have been developed for interacting with biometric hardware and software.

The use of biometrics will be new to many users, who will not understand the technology, nor be comfortable with using it. User behavior can affect both throughput of the system as well as the quality of the captured image. Guidelines for developing interactions with biometric applications that increase throughput and image quality would be extremely valuable to the biometrics community. This would help them develop hardware, software, and interaction techniques that would produce high quality biometrics. Designs that help end users understand the biometrics hardware and process would lessen the time it takes to obtain images improving the process for both the participant and the operator.

This presentation will examine the affect of height of the sensor on the quality of the fingerprints and the time required to collect prints. We will also examine the affect of training materials on quality and timing.

Biography: Mr. Orandi is a Principal biometric researcher in the Center for Information and Telecommunications Technologies at Mitretek Systems and a guest researcher at the Visualization and Usability Group in the Information Access Division of the National Institute of Standards and Technology working with the NIST Biometrics Group in the evaluation of biometric systems usability. Previously, he was a Senior Software Engineer and Manager at Lockheed Martin where he supported the development activities of various biometric systems including US-VISIT, IDENT, IDENT-Asylum and TWIC Phase-III. Mr. Orandi holds a Bachelor of Science degree in computer science from the University of Maryland at College Park and a Master's degree in computer science from Johns Hopkins University.