

## M1/05 - 0396

### **New Project Proposal – Conformance Testing Methodology for INCITS Biometric Data Interchange Format Standards – Part 10: Conformance Testing Methodology for INCITS 396:2005, Information Technology, Hand Geometry Interchange Format**

#### 1. Source of the Proposed Project

##### 1.1 Title

“Conformance Testing Methodology for INCITS Biometric Data Interchange Format Standards – Part 10: Conformance Testing Methodology for INCITS 396:2005, Information Technology, Hand Geometry Interchange Format”

##### 1.2. Date Submitted

June 8, 2005

##### 1.3. Proposer

INCITS Technical Committee M1

#### 2. Process Description for the Proposed Project

##### 2.1. Project Type

D – This is a standards development project.

##### 2.2. Type of Document

The project is expected to result in an INCITS standard that will be one part of a multipart standard on conformance testing methodologies for biometric data interchange formats. Parts 2-n are expected to specify details of the conformance testing methodology required by the specific biometric modality (e.g. reference data and conformance testing requirements for the specific modality not specified in the generalized testing methodology). Conformance test details common to all modalities to be specified in Part 1..

##### 2.3. Definitions of Concepts and Special Terms

This proposal uses vocabulary and terms as currently listed in M1/03-0128: M1 Vocabulary and Definitions and the following terms from ISO/IEC Guide 2:

*Conformance*- The fulfillment of a product, process or service of specified Requirements

*Conformance Testing*: Evaluation of conformance by means of testing.

*Assertions* – The specification (description) for testing a conformance requirement. These are specific class of conditions that can be tested.

*Test case* – a description of the actions (e.g., condition of the test, expected results) required to achieve a specific test purpose or combination of test purposes.

- 2.4. Expected Relationship with Approved Reference Models, Architectures, etc.  
None.
- 2.5. Recommended INCITS Development Technical Committee  
INCITS Technical Committee M1, Biometrics  
(INCITS Technical Committee M1.3 – Biometrics Data Interchange Formats)
- 2.6. Anticipated Frequency and Duration of Meetings  
It is anticipated that this project would require one-half day meetings approximately quarterly.
- 2.7. Target Date for Initial Public Review  
It is estimated that the draft document would be ready for submission to INCITS in June 2006.
- 2.8. Estimated Useful Life of Standard  
There is no known limitation on the useful life of this proposed standard.

### 3. Business Case for Developing the Proposed Standard

#### 3.1. Description

The proposed standard would establish the specifications of the framework, concepts, methodology for testing, and criteria to be achieved to claim conformance to INCITS 396:2005, Information Technology – Hand Geometry Interchange Format. The proposed standard will include:

- (1) Specification of abstract test suites,
- (2) Specification of conformance testing procedures,
- (3) Specification of required data streams and error indices to be used with the testing procedures,
- (4) Specification of a critical set of test assertions useful to develop test tools to test, at a minimum, the normative requirements of INCITS 396, and
- (5) Guidance for creating conformance testing samples.

#### 3.2. Existing Practice and the Need for a Standard

Currently there are no existing standards for conformance testing of hand geometry interchange format implementations. It is expected that a standard conformance testing methodology will encourage wider adoption by users of biometric solutions conforming to INCITS 396 and promote among the industry the development of conformant implementations of INCITS 396.

#### 3.3. Implementation Impacts of the Proposed Standard

##### 3.3.1. Development Costs

Technical editor labor is expected to total approximately one quarter of a staff year.

##### 3.3.2. Impact on Existing or Potential Markets

The proposed standard will increase the interoperability of hand geometry interchange format implementations based on INCITS 396. Existing markets for providing iris image data technology should experience

added growth from the benefits of interoperability.

#### 3.3.3. Costs and Methods for Conformity Assessment

There is no data at this time on which to make an estimate.

#### 3.3.4. Return on Investment

There is no data at this time on which to make an estimate.

### 3.4. Legal Considerations

#### 3.4.1. Patent Assertions

There are no known patents relevant to this standard.

#### 3.4.2. Dissemination of the Standards

The drafts of this standard will be distributed electronically. There may be distribution constraints as this document reaches different stages of development and processing within INCITS.

### 4. Related Standards Activities

#### 4.1. Existing Standards

- INCITS 396:2005, Hand Geometry Interchange Format
- INCITS 398:2005, Common Biometric Exchange Formats Framework

#### 4.2. Related Standards Activity

- ISO/IEC WD 19794-10, Biometric Data Interchange Formats – Part 10: Hand Geometry Silhouette Data
- ISO/IEC FCD 19785-1, Common Biometric Exchange File Formats Framework: Part1: Data Element Specification

#### 4.3. Recommendations for Close Liaison

Biometric Management Office  
National Institute of Standards and Technology

### 5. Units of Measurement used in the Standard

If units from a physical dimensioning system are needed for specifying the requirements of this standard, the goal would be to use the International System of Units (SI).