

# Status and Deployment of Biometric Standards

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## INCITS M1 Biometrics Published Standards

- Data Interchange Standards (M1.3)
  - INCITS 377 Finger Pattern Based Interchange Format
  - INCITS 378 Finger Minutiae Format for Data Interchange
  - INCITS 385 Face Recognition Format for Data Interchange
  - INCITS 379 Iris Image Interchange Format
  - INCITS 381 Finger Image Based Interchange Format
  - INCITS 379 Biometric Data Interchange Formats - Signature/Sign Data
  - INCITS 396 Hand Geometry for Data Interchange
- **Corresponding ISO/IEC Standards published as separate parts of ISO/IEC 19794**

## INCITS M1 Biometrics Published Standards

- Biometric Profiles (M1.4)
  - INCITS 383 Interoperability and Data Interchange - Biometric Based Verification and Identification of Transportation Workers
  - INCITS 394 Data Interchange and Data Integrity of Biometric Based Personal Identification for Border Management

## INCITS M1 Biometrics Published Standards

- Biometric Technical Interfaces (M1.2)
  - INCITS 358 The BioAPI Specification
  - INCITS 398 Common Biometric Exchange Formats Framework (CBEFF)
- Biometric Performance Testing and Reporting (M1.5)
  - INCITS 409.1 Principles and Framework
  - INCITS 409.2 Technology Testing and Reporting
  - INCITS 409.3 Scenario Testing and Reporting

## M1 Program of Work

- Revision projects – INCITS 377, 378, 398
- Amendment projects – INCITS 358, 383, 385 (3D Face)
- BioAPI projects – tenprint capture, Java interface, conformance testing
- Conformance testing for data formats (multi-part)
- Biometric fusion data format
- Biometric sample quality standard
- Profile projects – POS identification, access control, DoD implementations
- Biometric performance testing (multi-part)

## SC37 Program of Work

- 19784 – BioAPI – additional parts for archive function provider I/F, BioAPILite
- 19794 – data formats - additional parts for signature/sign, finger pattern, vascular, hand geometry, face identity
- 19795 – performance testing (multi-part)
- 24708 – BioAPI interworking protocol (BIP)
- 24709 – BioAPI conformance testing
- 24713 – profiles for interoperability
- 24714 – cross-jurisdictional and societal aspects report
- 24741 – technical report for biometrics tutorial

## DHS Biometric Standards Adoption

- Transportation Worker Identification Credential (TWIC)
  - INCITS 383 (Information technology - Application Profile - Interoperability and Data Interchange - Biometric Based Verification and Identification of Transportation Workers)
  - Major deployment using INCITS 378 fingerprint minutiae records on ID cards to identify workers at US seaports.

## DHS Biometric Standards Adoption

- Transportation Security Agency (TSA) Registered Traveler (RT) Program (Specification in Development)
  - Data Format Standards
    - ANSI/NIST-ITL1-2000 Biometric Data Interchange
    - INCITS 378 Finger Minutiae Format for Data Interchange
    - ISO/IEC 19794-6 Iris Image Interchange Format (rectilinear and polar formats)
    - INCITS 385 Face Recognition Format for Data Interchange
  - Related Standards
    - NISTIR 7151 (Fingerprint Quality)
    - INCITS 398 Common Biometric Exchange Formats Framework (CBEFF)
    - WSQ, JPEG2000, JPEG (Data Compression)

## DoD Biometric Standards Adoption

- INCITS 358-2002, BioAPI specification
- INCITS 398-2005, CBEFF, the Common Biometric Exchange Formats Framework specification

## Related Programs

- Personal Identify Verification (PIV) (NIST SP 800-76)
  - INCITS 378 Finger Minutiae Format for Data Interchange
  - INCITS 381 Finger Image Based Interchange Format
  - INCITS 385 Face Recognition Format for Data Interchange
  - INCITS 398-2005, CBEFF, the Common Biometric Exchange Formats Framework specification
- ICAO Biometric ID for Passports and MRTD
  - ISO/IEC 19794-2 Finger Minutiae Data
  - ISO/IEC 19794-5 Face Image Data
  - ISO/IEC 19794-6 Iris Image Data
  - ISO/IEC 19785 CBEFF

## Related Programs

- UN International Labor Organization (ILO) Seafarer's Identity Card
  - ISO/IEC 19794-2 Finger Minutiae Data
  - ISO/IEC 19794-4 Finger Image Data
  - ISO/IEC 19785 CBEFF

Thank you!

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