Proposed
ANSI/NIST-ITL 1-2007
Standard

IAI AFIS Mid-year Meeting
Feb 28, 2007
Minutiae Updates (Type 9)

- INCITS M1-378 Template Support
  - Defined a reserved block of fields as a registered vendor block (126-150)
  - Specified the minutiae position for ridge endings and bifurcations
  - Common rules for angle determination
  - Used by PIV

- ISO 19794-2 Not used
IRIS Image Record (Type 17)

- New record type interoperable with the M1 Iris data format
- Iris image representation only (polar coordinate representation excluded)
Facial Record Updates (Type 10)

- Subject Acquisition Profile Levels (SAP)
- Subject Pose Angles
- Expanded list of subject facial descriptors
- Encoding of MPEG4 subject feature points
- Use of JPEG, JPEG 2000, and PNG compressions algorithms
- Provision for image quality metrics
- 3-D Provisions in future updates
Fingerprint Quality Metric

- FBI EFTS 7.1 requires NFIQ finger score (1-5)
- Alternate Fingerprint Metric
  - Finger Number
  - Predictive Quality Score (0-100 254 & 255)
  - Registered IBIA vendor Id,
  - Vendor algorithm code
- Quality fields
  - Reflect the format used in existing schemes (i.e. M1 standards)
  - Utilize the existing IBIA registry
Finger Segmentation Fields

Field 14.021 Finger Segment Positions
- Finger Number
- X(left) X(right) y(top) y(bottom)

Field 14.025 Alternate SEG
- Finger Number
- Total number of vertices
- Set of consecutive vertices (X & Y pixel offsets)
Latent Fingerprint Issues

- Develop an approach to encode first- and third-level details
- Require a minimum scanning resolution of 1000 ppi for the capture of latent images
- Develop codes for major case prints
- Update Finger Impression type codes by sensor type (live, contact, optical, etc.)
CBEFF Record Type - 99

- Biometric data conforming to data format standards developed by organizations registered with IBIA
- Carry items not carried in other ANSI/NIST record types
  - Finger Pattern Spectral Data (377)
  - Hand Geometry Silhouette Data (396)
  - Signature/Sign Behavioral Data (395)
  - Pattern Skeletal Data (380)
  - Vascular Data
Approved XML Resolution

- Incorporates all 2007 updates
- NIEM / GJXDM objects used
- One standard: Two Parts
- Develop a Part 2: alternative XML
- Conventional followed by XML
Steps to an ANSI Standard

- Develop a Canvass list of materially affected and interested parties
- Develop draft of proposed standard
- Canvass ballot
- Consensus on a proposed standard by users, producers, integrators, & others
- Broad-based public review on draft
Interest Categories

- Canvassees/alternates: 80
- Organizations: 60
  - Users: 23 39%
  - Producers: 17 28%
  - Integrators: 8 13%
  - Consultants: 10 17%
  - Others: 2 3%
Government / Non-government

Government: 40%
- Local: 3%
- State: 13%
- Federal: 12%
- International: 12%

Commercial: 38%

Private Consultants: 22%
Status of Proposed ANSI/NIST-ITL 1-2007 Standard

- Released January 17, 2007
- Letter ballots due March 5, 2007
  - 60 Canvassseees, 80 total members
  - 17 Ballots returned
- Public Review Period closes Mar 12, 2007
- See http://fingerprint.nist.gov/standard/ for draft document
ANSI/NIST-ITL 1-2007 Standard

- Conventional version developed
- Currently developing an XML version of ANSI/NIST-ITL 1-2007, which will be balloted after approval of the standard.
- The Committee to Define an Extended Fingerprint Feature Set (CDEFFS) is developing and evaluating an addendum, which will be balloted at a later date.

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