

ISSUES LIST

1) Editor Authority to Revise Draft as Needed to incorporate working group output, results of the workshop, and to make grammatical and other non-substantive changes.

Result: **Consensus reached -- no voiced opposition**

2) Standard Name Change

Result: After discussion of several alternatives, **consensus was reached to keep the standard name as it was for the 2007 and 2008 versions: *Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information***. The Biometrics Standards Coordinator will work with ANSI to file the necessary forms to effect this. The spirit of the Workshop was that the potential of a name change shall not be again addressed for the foreseeable future.

3) New DNA Record Type-18

Result: **Support expressed for such a record type**. Concern was expressed about the number of mandatory fields and fields that may not be needed in ANSI/NIST that exist in the ISO representation of DNA. ISO's representation will be strictly in XML, but the ANSI/NIST-ITL standard will represent it in all authorized encodings of the standard.

Consensus for a DNA working group to refine the layout and representation of the DNA record.

Chair: Scott Carey (FBI) scott.carey@ic.fbi.gov

Initial List of Participants:

Matt Young (DoD BIMA)
Chris Miles (DHS S&T)
Mark Branchflower (INTERPOL)
Diane Stephens (DHS/US-VISIT)
Will Graves (DHS/US-VISIT)
Bonny Schier (Saber)
Cathy Tilton (Daon)

Victoria Lester-Saura (INTERPOL-Washington)

Brad Wing (Biometrics Standards Coordinator)

Added by email:

Benji Hutchinson (DoD)

4) Addition of EFS to Record Type-9

Result: There was consensus to include the EFS in the new version of the draft standard, with non-substantive changes allowed for editing purposes. The editor is specifically directed to streamline the field descriptions in the Type-9 record.

As a result of a separate vote (New ISSUE D), the [Conformance Working Group](#) will determine if the CDEFFS report shall be included only by normative reference or as an annex, or portions extracted from the existing Record Type 9 draft and included with further information from the CDEFFS report and then established either as a referenced normative external document or as an annex to the standard.

5) New Plantar Record Type-19

Result: There was consensus to include this record, with minor editorial revisions, if necessary.

6) New Forensic Data Fields for Face Record(s)

Result: There was consensus to adopt the proposed fields for the face record that focus upon mark-ups of images (with minor editorial revisions, if required). No objections were raised.

7) New Fields for Distortion, Lighting Artifacts in Face Record

Result: There were no comments or questions. Consensus was reached to include in the standard, with minor editorial revisions, if needed.

8) New Forensic Data / Image Mark-ups for Iris Record

Result: There was consensus that the concept of adding fields to accommodate markup of iris images. However, there were concerns about details of the field contents, such as with 'occlusion.' A consensus was reached on establishing a working group to refine the proposed fields.

Chair: Patrick Grother (NIST) Pgrother@Nist.Gov

Initial List of Participants:

Richard vorder Bruegge (FBI)

Rick Lazarick (CSC)

Ed German (USG)

Cathy Tilton (Daon)

Will Graves (DHS/US-VISIT)

Ben Bavarian (ABC)

Tom Hopper (Cogent)

Eric Kukula (Noblis)

Brad Wing (Biometrics Standards Coordinator)

NOTE: The mission of this working group was expanded based on issue number 19.

9) New Information Assurance Record Type-98

Result: There was considerable interest expressed in the concept of this record, but there were several questions whether this type of data security fits into the standard and how it should properly work. There was no clear consensus to include this record type or to exclude it. The issue was referred to a special Working Group.

Chair: Eric Albertine (NSA) ealbertine@gmail.com

Initial List of Participants:

Joe Pantero (FBI)

John Mayer-Splain (Noblis)

Kevin Bullmann (BKA - Germany)

Bonny Scheier (Saber)

Cathy Tilton (Daon)

Matt Young (DoD BIMA)

Brad Wing (Biometrics Standards Coordinator)

10) New Geographic Reference Field

Result: Consensus was reached that this field should be included in relevant record types. However, it was decided that a Working Group was needed to work out the details of the field contents. The concept of including the geographical location of storage of data was defeated -- the field shall only address geographical location of data capture.

Chair: Bonny Scheier (Saber) saberbgs@gmail.com

Initial List of Participants:

Kathy Plummer (NLETS)

Charlie Schaeffer (FDLE)

Brian Finegold (Noblis)

Adam Rosefsky (Maxvision)

Matt Young (DoD BIMA)

Cathy Wimer (FBI)

Patrick Grother (NIST)

Anthony Hoang (DHS CIO)

Brad Wing (Biometrics Standards Coordinator)

11) Inclusion of SAP levels to reflect Mobile ID codes

Result: A consensus was reached to remove the last two sentences of the write-up for field 14.031 that had proposed in the draft of the standard. Those sentences had restricted the use of mobile fingerprint devices to only those that were Appendix F certified. It was the consensus of the group that restricting the standard to Appendix F certified mobile devices was not desirable. The concept of how to describe PIV certified devices in accordance with the standard was referred to the Working Group for Resolution established under Issue 38.

Consensus was reached to include new optional fields in the Fingerprint and Iris records to list the SAP levels of mobile devices that captured the data. Consensus was also reached to extend the Facial SAP table to include the SAPs 32,42 and 52.

12) Deprecation of Record Types 3, 5 and 6

Result: There was consensus to deprecate Record Types 3, 5 and 6 in the new version of the standard and not include descriptions/layouts of those records, but include a reference that descriptions/layouts are available in earlier versions of the standard.

13) Deprecation of Fields 10.021 and 10.022

Result: This issue was split into separate categories:

- There was consensus not to delete 10.021
- There was no consensus to remove 10.022
- There was consensus that a statement shall be added to the text to indicate that if field 10.021 is used then field 10.025 cannot be used
- There was consensus that if field 10.022 is used, then field 10.026 cannot be used.
- The editor is instructed to ensure that all elements in field 10.022 are included in an update to the table for 10.026 and that multiple entries are allowed in field 10.026

14) Deprecation of Fields 9.004-9.012

Result: This was split into two parts: Deprecation of fields 9.005-12 and Deprecation of field 9.004 and the meaning of that field if it is retained. There was consensus to deprecate and delete descriptions of the fields 9.005-9.012 from the draft of the new standard. See Issue 36 concerning field 9.004.

15) Extension of TOT field in Traditional Encoding

Result: This issue affects backward compatibility. There was discussion as to whether the TOT field should be expanded to 5, 8, 14 or unbounded number of characters. A working group was established to develop the final recommendation.

Chair: Brian Finegold (Noblis) brian.finegold@noblis.org

Initial List of Participants:

Bonny Scheier (Saber)

Charles Schaeffer (FDLE)

Mike McCabe (FBI)
Will Graves (DHS (S&T))
Matt Young (DoD BIMA)
Kevin Bullmann (BKA Germany)
Timo Ruhland (BKA Germany)
Jennifer Stathakis (FBI)
Brad Wing (Biometrics Standards Coordinator)

Note: The original mission of this working group was extended to include examining the concept of a new field resembling the German user-defined field that contains information on what to do with the file.

The issue of subfields in TOT (See New ISSUE E) was referred to this working group.

16) New Original Reference Image Record Type-20

Result: A consensus was reached that this new record type should be included in the final draft of the standard. However, there was considerable discussion about the extent of what should be included and specified in the record. As a result, a working group was established to finalize the content of this record type.

Chair: John Mayer-Splain (Noblis) John.Mayer-Splain@Noblis.Org

Initial List of Participants:

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Kevin Bullmann (BKA - Germany)
Timo Ruhland (BKA - Germany)
Eric Kukula (Noblis)
Matt Young (DoD BIMA)
Adam Rosefsky (Maxvision)
Scott Hills (AWARE)
Charlie Schaeffer (FDLE)
Ben Bavarian (ABC)
Don D'Amato (Noblis)
Brad Wing (Biometrics Standards Coordinator)

17) New Image Hash Field

Result: A consensus was reached to include this field in the applicable records of the standard, with minor editorial revisions to explain the field's use in more detail.

18) Domain Field as Mandatory

Result: There was no consensus to make the domain field mandatory.

19) Iris Record Field additions for Compact formats, range, lens angle of view, image transform and acquisition and lighting spectrum.

Result: The presenter of this topic area raised the suggestion that the formats be extended beyond that included in the draft. He also addressed compression types. Consensus was reached that these fields should be referred to the working group established with issue 8 for wording and content revision.

20) New Field in Record Type 9 for Latent Workstation Annotation

Result: Consensus is to accept Field 9,901 as written in the draft.

21) New Record Types-11 and 12

Result: A consensus was reached to reject this proposed change.

Discussion evolved into associated new issues. See Section of NEW ISSUES at the end of this document.

22) Type 10 Record Update for New Fields or Type 11 Only (pending preceding vote)

Result: OBE See outcome of # 21

23) Addition of Palmprint Grasp code

Result: Consensus was reached to include GRASP in the list of palm codes.

24) Extension of SMT code list

Result: A consensus was reached not to included extensions of the NCIC codes in the standard (such as bite). This is best left to the FBI's APB process.

25) Develop Best Practice Documents for Fingerprints

Result: Consensus was reached not to develop and publish a Best Practices document for fingerprints.

26) Revision to Best Practice Document for Face Image Capture

Result: Consensus was reached to update the Best Practice Document for facial image capture to clarify level 50/51 pose angle requirements -- as had been included in the draft associated document.

Note: The issue was raised about streamlining the presentation language in the Best Practice document and determining if its directions are current. A working group was established to update the Best Practice document. Whether this document will be free-standing with a normative reference in the standard, or incorporated as an annex is referred to the Conformance Working Group (see New Issue D).

Chair: Scott Swann bscott,swann@leo.gov

Initial List of Participants:

Ben Bavarian (ABC)

T J Smith (LASD)

Bonny Scheier (Saber)

Charlie Schaeffer (FDLE)

Bastiaan Zetstra (Netherlands Police Agency)

Ed German (USG)

Will Graves (DHS/US-VISIT)

Mike McCabe (FBI)
Eric Kukula (Noblis)
Patrick Grother (NIST)
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John Mayer-Splain (Noblis)
Mike Barrow (Houston Police Department)
Brad Wing (Biometrics Standards Coordinator)

27) Formation of Working Group for Voice Record

There is no voice record in the current draft of the standard. If one is to be included in the next version of the standard, it must be developed. The consensus of the workshop was to establish a working group for this purpose.

Chair: Bonny Scheier (Saber) saberbgs@gmail.com

Initial List of Participants:

Cathy Tilton (Daon)
Cathy Higgins (Higgins & Associates)
Elham Tabassi
Brad Wing (Biometrics Standards Coordinator)

E-mail received to participate in group:

Jim Wayman (San Jose State University)
Joseph Campbell (MIT)

28) Formation of Working Group for proprietary binary data Record

This proposal was withdrawn by its submitter.

29) Establish NIEM Biometrics Domain & Mgmt Group

Result: The consensus was to establish a Working Group to examine the evaluate the establishment of a NIEM Biometrics domain.

Chair: Anthony Hoang (DHS CIO) anthony.hoang@dhs.gov

Initial List of Participants:

Arun Vemury (DHS S&T)
Will Graves (DHS/US-VISIT)
Charlie Schaeffer (FDLE)
Boris Shur (DOJ NIEM)
Rob Mungovan (AWARE)
Priscilla Walmsley (Datypic)
Cathy Tilton (Daon)
Catherine Plummer (NLETS)
Jennifer Stathakis (FBI)
Brad Wing (Biometrics Standards Coordinator)

30) 3D Scar Fields

Result: The consensus was not to form a working group on this issue and not to include it in the standard.

31) Reordering of NCIC table

Result: Consensus was reached to accept the reformatting of the NCIC codes as proposed by the Editor. The FBI will address whether the NCIC table content should be revised and updated as part of its APB process. The Conformance Working Group will address whether this should/could be an external document, allowing for update without directly revising the standard, or included as an Annex in the final draft.

32) Redefinition of Major Case

Result: The consensus was not to redefine major case in the standard or change references to major case throughout the standard,

33) Other Definition Changes (section 29)

Result: There was no support for action in this area,

34) Stitching 4 finger slap from individual images (notation in Field 14.020)

Result: A Working Group was established to address several concerns raised during the discussion of this item. The working group is to address:

- * Should there be a new field added to indicate that individual images were collected simultaneously with a device that checks for sequencing?

- * Should there be a prohibition of composite images of a multi-finger 'slap' derived from individually acquired finger images, and if not, should a comment or notation be mandatory?

- * Should there be a new impression type added to allow for this type of capture device?

- * Should there be a clear designation of areas where information was not gathered when a device outputs a 'slap' image?

- * What should be addressed by application profiles as opposed to the standard?

Chair: Scott Swann

Initial List of Participants:

T J Smith (LASD)

Tom Hopper (Cogent)

Arun Vemury (DHS S&T)

Bastiaan Zetstra (Netherlands Police Agency)

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Mike Barrow (Houston Police Department)

John Libert (NIST)

Adam Rosefsky (Maxvision)

Elham Tabassi (NIST)

John Mayer-Splain (Noblis)

Kevin Fisher (Kern County Sheriff's Office)

Mike McCabe (FBI)

Mike Matyas (Mount Airey)

CJ Lee (TSC)

Brad Wing (Biometrics Standards Coordinator)

35) Designation of Fingerprint capture by contactless device

Result: Consensus was reached to instruct the editor to change

the introduction Record Type 14 to indicate that all fingerprint impressions shall be conveyed in a 2D image. The specific references to types of devices capturing prints are to be deleted.

36) Making the ISO fields "standard" in Record-Type 9

Result: After considerable discussion, there was consensus to keep field 9.004 and deprecate and delete the use of 'S' in field 9.004. Since field 9.004 has been mandatory, there was consensus reached that this field shall remain mandatory with the encoding 'U' as the only option.

37) WSQ Deprecation for 1000 ppi (Field 14.011)

Two versions of Field 14.011 were developed during the workshop. A vote was taken to instruct the editor to work with the two submitters to finalize the language for this field. The intent of both submissions is similar and the consensus was to accept the concept of the revision with minor editorial changes.

38) New text for Resolution

Result: A working group was established to develop wording describing scanning and transmitting resolution in Section 5 and to check references for accuracy throughout the document on resolution.

Chair: John Mayer-Splain (Noblis)

Initial List of Participants:

Margaret Lepley (Mitre)

Rick Lazarick (CSC)

T J Smith (LASD)

John Libert

Mike McCabe (FBI)

Arun Vemury (DHS S&T)

Elham Tabassi (NIST)

Diane Stephens (DHS/US-VISIT)

Bastiaan Zetstra (Netherlands Police Agency)

Brad Wing (Biometrics Standards Coordinator)

Note: The mission of this working group was expanded to include an explanation of how/when PIV certified mobile devices may be used in accordance with the standard.

39) Elimination of tolerance for up to 520 ppi on transmit resolution

See the resolution for Issue 38. Both issues were handled simultaneously.

40) Develop ASN.1 Encoding Rules Document

Result: There was no support for establishing a working group to develop this set of encoding rules.

41) Develop Short-Tag Encoding Rules Document

Result: After discussion, a vote was held concerning the establishment of a working group to develop rules for short tag encoding. A consensus was reached that there should be no such working group.

42) Glossary / Crosswalk for all Encodings

Result: FBI to examine possibility of making the document showing the cross walk of the 2007 and 2008 standards available. If it can be updated with the new fields, it could be an associated reference document. This was not a votable issue.

ACTION ITEMS

a) Traditional Encoding Rules Working Group

Results: The working group is:
* directed to state minimum lengths for records / fields / subfields and information items (per vote of the participants in the meeting) and maximum lengths where applicable- (without character separators)

* develop a document describing the RULES for encoding in this format. (Associated files, if any, are by reference).

Chair: John Mayer-Splain (Noblis)

Initial List of Participants:

Mike McCabe (FBI)

Scott Hills (AWARE)

Brian Finegold (Noblis)

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Brad Wing (Biometrics Standards Coordinator)

Note: The Conformance Working Group will examine if the RULES document should be a separate document or incorporated as an Annex in the standard.

b) NIEM-Conformant XML Working Group

Results: The working group is:

* develop a document describing the RULES for encoding in this format. (Associated files are by reference). This is to be delivered in the 3 month period.

* develop (after the 3 month period for the other working groups and a decision is made at the next workshop concerning the Biometrics domain) schemas, reference implementation, and other necessary components of the NIEM-conformant XML representation of the standard.

Chair: Gerry Coleman (DoJ NIEM)

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Initial List of Participants:

Catherine Plummer (NLETS)

Anthony Hoang (DHS CIO)

Bonnie Scheier (Saber)

Priscilla Walmsley (Datypic)

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CJ Lee (TSC)

Brad Wing (Biometrics Standards Coordinator)

NEW ISSUES

A) Tattoo Coding

After discussion, consensus was reached to incorporate the ability to enter more than 1 NCIC code for tattoos in this revision process. Details were left to the Editor to handle.

B) Addition of "Other" category as a subset of scar (like Cut/Branding/Chemical)

After discussion, **no consensus was reached to add this new category.**

C) Conformance to the Standard

Result: Following a presentation on Conformance, there was discussion on the topic. Consensus was reached to establish a working group to develop a modified conformance clause (2.3 of the standard). The working group shall also discuss development of a separate conformity assessment document/standard and longer-term development of conformance assessment tools and associated data, presenting findings at the next workshop.

Chair: Mike Hogan (NIST) m.hogan@nist.gov

List of Initial Participants:

Austin Hicklin (Noblis)

Rob Mungovan (AWARE)

Scott Swann (FBI)

Scott Hills (AWARE)

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Mike McCabe (FBI)

Elham Tabassi (NIST)

Matt Young (DoD BIMA)

John Mayer-Splain (Noblis)

Brian Finegold (Noblis)

Kimberly Woods (DoD BIMA)

Brad Wing (Biometrics Standards Coordinator)

Note: This working group's mission was expanded to include examination of how to reference and/or include the updated NCIC table; EFS (and CDEFFS) information; Best Practices for Facial Capture, Encoding Rule Documents and DNA kit tables. (See New Issues D.) It is also to address references to URLs throughout the draft.

D) External Documents / Annexes to the Standard

In the draft version of the standard circulated prior to the workshop, the NCIC code table, Best Practice descriptions for face capture, and encoding rules were presented as stand-alone documents not directly included in the standard. The intent was to allow these to be modified, if necessary, without a direct revision to the standard. As was pointed out in the workshop, external documents can be made normative in two ways:

- * Reference to a specific, dated version
- * Reference to the latest version of a document.

The latter option requires a published document and direct ownership of the document. It requires faith on the part of the canvasees that the update process for the associated document is appropriate for ANSI/NIST-ITL use. Some lists already referenced in the standard, such as Biometric Quality Algorithm Vendor Identification are maintained in an external registry (in this case owned by IBIA). The editor has suggested that this approach be used for NCIC codes and DNA kits, rather than be annexes to the standard (thus allowing them to be updated). This is referred to the [Conformance Working Group for final resolution](#).

Since the revision to the Face Best Practice document is unlikely to be completed prior to publication of the updated standard, a manner of referencing the current Best Practices (as updated reflecting the outcome of this workshop) and the new version, when it is published, is needed. The consensus of the workshop participants was that this was something to be referred to the [Conformance Working Group](#). The general content of the Best Practices document for facial capture is to be made normative in the next version of the standard.

The issue with CDEFFS is slightly different. The data fields recommended by the CDEFFS document are included in the description of Record Type 9 in the draft. The issue here is whether the CDEFFS document can be published and referred to in a normative manner, with only short descriptions of the data field in Record Type 9; or whether to incorporate the entire CDEFFS document (with some editorial modifications) as an Annex and streamline the Type-9 record description to only list the field names. [How to handle the incorporation of the CDEFFS document and EFS also was referred to the Conformance Working Group.](#)

The expressed desire of the participants in the workshop is to ensure that substantive changes are not made to the content of the standard through revision of ancillary documents.

[The encoding rules will be developed by their respective working groups.](#) They will attempt to develop, within the 3 month period the RULES for encoding. The [Conformance Working Group](#) will determine if these are to be normative references as external documents or incorporated as Annexes with the standard. Associated files (schemas, etc.) will be by reference from the RULES documents.

E) Additional Subfields in the Domain Field

[There was consensus to include the sub domain name and version number as a repeating subfield.](#) The details of the specification are referred to the [Domain/TOT Working Group](#).

F) List of Domains and Points of Contact

There was considerable discussion concerning the value of this type of list, but it is not a direct part of the standard itself. There was no votable action item associated with this issue.

G) Designation of fields 800-899 in Record Type 9 as User-Defined Fields

There was consensus on so designating this block of fields. A working group was established to define usage of these user-defined fields.

Chair: Mike McCabe (FBI)

List of Initial Participants:

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Ben Bavarian (ABC)

Scott Hills (AWARE)

Bonnie Scheier (Saber)

Diane Stephens (DHS/US-VISIT)

Matt Young (DoD BIMA)

Charlie Schaeffer (FDLE)

Kevin Bullman (BKA Germany)

Cathy Tilton (Daon)

Brad Wing (Biometrics Standards Coordinator)

H) Extension of Type 10 to handle pictures of other parts of the body

Germany uses codes to photograph parts of the body of persons involved in sexual crimes. They proposed an extension of field 10.003 to include more than Face/Scar/Mark/Tattoo. There was general support for the concept. It was agreed to establish a working group to determine if the list proposed by the BKA is to total of new types desired.

10.003: Image Type (IMT)		
FACE		ist schon im NIST definiert
SCAR		ist schon im NIST definiert
MARK		ist schon im NIST definiert
TATTOO		ist schon im NIST definiert
BODY		Frontansicht
OTHER		Andere
FULL FRONTAL	NacktED	Frontansicht
MISC	NacktED	Erfassung sonstiger Nacktaufnahmen und für Altbestände
REAR HEAD AND TORSO	NacktED	Kopf-Schulter-Rücken
FRONT HEAD AND TORSO	NacktED	Kopf-Brust-Bauch
BACK	NacktED	Rücken
FEET	NacktED	Füsse
PALMS	NacktED	Handinnenflächen

OUTER HANDS	NacktED	Handausflächen
BACKSIDE	NacktED	Gesäß
GENITALS / HIP	NacktED	Genitalien/Hüfte
CHEST	NacktED	Brust (Nabel bis Kinn)

Chair: Timo Ruhland (BKA Germany)

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Initial List of Participants:

Richard vorder Bruegge (FBI)

Kevin Bullmann (BKA Germany)

Eric Kukula (Noblis)

Individual from FDLE Sexual Predators Unit (POC: Charlie Schaeffer)

Ben Bavarian (ABC)

Brad Wing (Biometrics Standards Coordinator)

I) Extension of the maximum dimensions of slap images.

Persons with large hands sometimes cannot place their fingers on a standard size slap platen. The proposal is to extent the maximum dimensions by about 5 cm in each direction. BKA is requested to submit a specific size increase recommendation for the next Workshop. There was no opposition expressed to the increase as long as it was specific and not excessive.

J) Revision of language describing Type-8

The current language states: Each Type 8 record shall contain image data representing the signature of the operator capturing the data." The editor is instructed to make the text clear that it should be the operator and the subject both.

K) Dental Identification

A question was raised by the representative from Argentina whether it was possible to represent dental data in the ANSI/NIST-ITL standard and whether a new record type was needed for this type of information. Scott Swann of the FBI volunteered to provide Argentina information about the dental record information standards that they use. No action was required on the part of the workshop.

L) Relationship with ISO

The roadmap for WG3 of ISO's SC37 includes exploration of whether the ANSI/NIST-ITL standard can / should be adopted within the ISO framework. Several options were presented on how this could occur. **The consensus was that only if there was no substantive change to the standard should this occur.** It was recognized that having an ISO standard associated with the content might be beneficial to some overseas users.