



Department of Defense Electronic Biometric Transmission Specification

Version 4.0 Amendment 1

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1 Introduction

1.1 Overview

This DoD Electronic Biometric Transmission Specification (EBTS) describes customizations of the American National Standards Institute/National Institute of Standards and Technology Information Technology Laboratory (ANSI/NIST-ITL) transactions that will be necessary to interface with the DoD Authoritative Biometrics Repository. The primary audience for this specification consists of software engineers who develop and/or support systems that interface with the DoD ABIS and any future biometric repository. Readers are expected to have working knowledge of the Federal Bureau of Investigation (FBI) EBTS and ANSI/NIST-ITL as a prerequisite for understanding this specification. The DoD's EBTS builds upon the ANSI/NIST-ITL and incorporates aspects of the FBI EBTS to meet DoD requirements via additions and customizations of the base data format.

The National Information Exchange Model (NIEM) is an Extensible Markup Language (XML) based standard for information exchange. The NIEM is a United States (US) government-sponsored initiative to facilitate information sharing within government organizations and their business partners. NIEM helps organizations meet the requirements of Homeland Security Presidential Directive (HSPD-5) 5: Management of Domestic Incidents, and associated Executive Orders. HSPD-5 directs the Department of Defense (DoD) to establish appropriate relationships and mechanisms for cooperation and coordination with other departments and agencies responsible for protecting national security.

The DoD Electronic Biometric Transmission Specification (EBTS) Information Exchange Package (IEP) is a collection of XML schemas, XML instance documents, and other information artifacts that document the rules governing the exchange of biometric information with the United States DoD. Biometrics is the automated recognition of individuals based on their behavioral and biological characteristics. The IEP will provide interoperability support to the following core biometric functions:

- **Collect** - Consists of capturing a biometric sample (such as facial image, fingerprint, or iris image) and related contextual data from an individual using a biometric collection capability.
- **Store** - The process of enrolling, maintaining, and updating biometric files to provide standardized, comprehensive, current biometric information on individuals.
- **Match** - Comparing a standardized biometric file to an existing source and scoring the level of confidence of the match.
- **Share** - The exchange of biometric files (biometric samples and contextual data) and match results.

The DoD EBTS 4.0 standard acts as the Information Exchange Package Documentation (IEPD), which describes the contents and use of all the artifacts included in the IEP. Not all artifacts are present in the package at this time, as they will be developed as part of the DFBA STB faceted release strategy.

- Information Exchange Package Documentation specification, or IEPD.
- Collection of XML Schemas, XML instances, and other documentation and artifacts that are the electronic representation of the rules governing an information exchange.
- To ensure interoperability, specific component requirements and constraints are determined on a per-exchange basis (in the IEPDs).
- Package includes everything needed to create a conformant information exchange.

1.2 New This Release

This release is the second NIEM IEP from the Defense Forensics and Biometrics Agency. The DoD EBTS v4.0 acts as the DoD-EBTS IEPD 2.0. The following section describes the major updates to the DoD EBTS artifacts contained within this IEPD.

1.2.1 ANSI NIST 2011 with Update 2013

The American National Standards Institute / National Institute of Standards and Technology International Technology Laboratories (ANSI/NIST-ITL 1-2011: Update 2013) standard [1]

provides the guidelines for the exchange of biometric information between various federal, state, local, tribal, and international systems. The 2013 update to the ANSI/NIST-ITL standard incorporates Record Type 11: Forensic and Investigatory Voice Supplement (ANSI/NIST-ITL 1-2011 Sup: Voice) directly into the text, as well as corrects miscellaneous errors that were noticed after publication of the 2011 version. The addition of Type 11 record and the updated additional record types associated with this version of the standard have been noted and merged into the DoD EBTS v4.0. The details of these changes are summarized in the table below. For ease of discussion, this standard is also referenced as the ITL 2013.

NIST Record	Summary of Changes
Type-1	Addition of a new field to signal when country code fields in the data for a transaction are specified according to GENC as opposed to the default ISO 3166-1.
Type-9	Addition of new fields to support the Extended Feature Set.
Type-10	Additional fields for cheiloscopy images, suspected patterned injuries, and capability to transmit extra-oral and intra-oral images. New fields containing subject information and capture organization data.
Type-11	A new record type introduced to handle forensic and investigatory voice data.
Type-13	Addition of new fields to support the forensic markups of friction ridge images. New fields containing subject information and capture organization data.
Type-14	New fields containing subject information and capture organization data. New capability to handle plain fingertip exemplars added.
Type-15	New fields containing subject information and capture organization data. New field to allow for segmentation of a full palm print.
Type-18	Addition of a field to allow cross reference to a particular Type-2 record associated with the DNA information in a particular instance of the Type-18 record.
Type-21	Addition of a new field to record information about medical devices found in or on a person that may be used to assist in identification of unknown deceased. New fields containing subject information and capture organization data.
Annex C	Establishment of the NIEM Biometrics Domain.
Annex G	Establishment of the NIEM Biometrics Domain and inclusion of the new fields and record types.

Figure 1: Summarized ANSI/NIST ITL 1-2011: Update 2013 Changes

1.2.2 NIEM Biometrics 3.2

The new release of NIEM Alpha 3.2 [2] included: model harmonization at both the core and domain level, refactoring of the core to remove and/or add content, incorporation of domain updates as driven by the communities of interest that govern them, and other architectural enhancements such as potential changes in the way NIEM manages code lists.

The NIEM core updates include:

- Incorporated elements previously contained in domain content.
- Modified existing definitions for data elements based on community input.
- Added substitution group placeholders for code lists, which makes plugging in updated code sets into information exchanges (e.g., IEPDs) much easier.
- Updated 33 code lists to ensure more timely and relevant data.

Key to the DoD EBTS IEPD 2.0, the NEIM Biometrics and Justice domains have submitted new and/or updated content for incorporation in NIEM 3.2.

1.2.3 Dual Binary and XML formats

This version of the DoD EBTS incorporates several new enhancements to facilitate the generation of transactions in either XML or legacy binary formats. This is a temporary enhancement intended to enable backward compatibility to legacy platforms and trading partners as they transition to an XML only framework. To maintain backwards compatibility, legacy transactions will be supported only as long as the lifecycle of previously purchased biometrics collection devices is active. All newly obtained systems to store/match/share biometrics shall conform to the mandated standards in the DoD Information Technology Standards Registry (DISR).

1.2.4 Geopolitical Entities, Names, and Codes (GENC)

On September 2, 2008, the U.S. Department of Commerce withdrew the Federal Information Processing Standards (FIPS) Publication 10-4, April 1995, Standard for Countries, Dependencies, Areas of Special Sovereignty, and their Principal Administrative Divisions (FIPS 10-4). The specifics of this action were announced in the U.S. Federal Register / Vol. 73, No. 170. FIPS 10-4 (plus

change notices) provided a list of the basic geopolitical entities in the world, together with the principal administrative divisions that constitute each entity. Each basic geopolitical entity was represented by a two-character, alphabetic "country code".

The newly incorporated Geopolitical Entities, Names, and Codes (GENC) Standard [3] now specifies an information model for representing names and codes of geopolitical entities and administrative subdivisions, with supporting information. A geopolitical entity is a region controlled by a political community having an organized government and possessing internal and external sovereignty, most often as a State but sometimes having a dependent relationship on another political authority, or a special sovereignty status. Geopolitical entities may be divided into administratively subordinate divisions.

A GENC code (or, synonymously, an ISO 3166 code element) for a geopolitical entity or administrative subdivision is a unique designation of that concept within a set of similar concepts established by a suitable authority. This information model is based on that of ISO 3166 but extended to capture additional information required by U.S. Government stakeholders [3]. In DoD EBTS v4.0 conformant transactions, geopolitical entities shall be represented via a three-character, alphabetic (Alpha-3) "country code."

The GENC 3.0 Edition addresses enhancements in the following areas [3]:

- Revised to no longer directly reuse items (countries and country subdivisions) specified in ISO 3166 (Section 5: body text, logical data model, XML encoding schema).
- Revised to indicate end of use of ISO codespace identifiers for items included in the content of the GENC standard.
- Revised to reference the GENC Registry for the specification of all:
 - GENC codespace identifiers,
 - ISO 3166 codespace identifiers,
 - FIPS 10 through 10-4 codespace identifiers,
 - GEC codespace identifiers , and
 - STANAG 1059 codespace identifiers

- Added conformance requirements for non-GENC codespace identifiers (specified in Annex B) to Annex A
- Split former Annex B – Country Code Standards (Informative) into replacement Annex B – Country Code Standards and Codespaces (Normative) and new Annex C – Country Code Standard Logical Data Models and XML Encodings (Informative)
- Revised language throughout to better discriminate codespace (identifiers) from (content) baselines, and codes-for-names from codes-for-countries.
- Updated all UML and XSD schemas, as well as the content of corresponding examples.

1.2.5 ISO 636 Languages

With the inclusion of the ANSI/NIST Record Type-11, new considerations must be given to the new voice modality. One of these considerations is the addition of fields and new code lists to accommodate the recognition and/or translation of voice components languages.

ISO 639-3 [4] & [5] attempts to provide as complete an enumeration of languages as possible, including living, extinct, ancient, and constructed languages, whether major or minor, written or unwritten. ISO 639-3 is a code that aims to define three-letter identifiers for all known human languages.

1.2.6 FBI 10.0.3

Federal Bureau of Investigation's (FBI) Electronic Biometric Transaction Specification (EBTS) version 10.0 [6] and recent update 10.0.3 [7] defines the composition of records within a transaction that is transmitted between the FBI's Next Generation Identification System (NGI) and another site or agency. The EBTS defines the interface between FBI Criminal Justice Information Services (CJIS) and the state, tribal, international, and other federal organizations' (OFO) systems. Changes to the data fields or formats within the FBI EBTS have been structured to honor previously published protocols to ensure that the systems are not adversely affected.

The DoD EBTS standard has taken steps to incorporate key aspects of the FBI's new NGI system into DoD EBTS version 4.0 to facilitate seamless exchange between systems. Further

enhancements to the DoD EBTS will be added to future releases as requested by the community. The FBI EBTS files and record contents, formats, and data codes have been updated for the exchange of fingerprint, palm print, photo, facial, and iris information between federal, state, and local users and the FBI/CJIS.

The NGI system is now organized by User Services (Request Response based) that include the following:

1. Identification Service.
2. Verification Service.
3. Information Service.
4. Investigation Service.
5. Notification Service.
6. Data Management Service.

The new FBI NGI System has changes regarding Identity Management which involve linking records from the civil, criminal and new repositories by a unique identity reference. The NGI System will refer to this new identifier as a Universal Control Number (UCN). NGI will place this UCN into the FBI Number/UCN field (2.014 FBI)[7].

A UCN may have multiple Event Identifiers (2.2035 EVI) associated with it. For example, a person who is arrested and fingerprinted multiple times. An EVI may have multiple Biometric Set Identifiers (2.2029 BSI) associated with it, one for each modality captured during the event; for example, fingerprints and palm prints taken during a booking process[7].

1.2.7 Code Lists

New to DoD EBTS v4.0 is the addition of EBTS DoD Integrated Data Dictionary (IDD) [8] Appendix A Code Lists and Lookup Tables. In previous DoD EBTS releases, the code lists were represented as text which were associated with the individual field definitions in the IDD. In the IDD v6.0,

applicable field definitions contain a reference to the code list now located in Appendix A of the IDD document. The new separated code list format in Appendices facilitates:

- Visualization and clarification of complex code list tables.
- Cross references to other fields that reference the code list.
- Space for the additional expression of code details.
- Addition of graphical expression of code list concepts.
- Enhancements to code lists to accommodate the XML Type Concept.

1.2.8 Inclusion of Type 11 Forensic and Investigatory Voice

DoD EBTS v4.0 includes the ANSI/NIST-ITL Type-11: Forensic and Investigatory Voice Transaction. Use cases for this transaction involve the submission of voice samples and associated metadata for known or unknown speakers for the purpose of adding these samples to a corpus of previously modeled voice samples.

Type-11 data fields will support transactions related to detecting and recognizing speakers, extracting speech segments from an audio recording that are attributable to a single speaker, and linking speech segments by speaker. These functions can be accomplished through automated means (computers), human experts, or hybrid human-assisted systems. This record type does not support streaming transactions.

1.2.9 ANSI/NIST-ITL Type 9 Extended Feature Set

ANSI/NIST-ITL 1-2011: Update 2013 included enhancements to the Type 9 Minutiae data records used to exchange minutiae or other friction ridge feature data. The major set of enhancements are contained in the Extended Feature Set (EFS) for latent print markups and the EFS has also been added to EBTS v4.0. The EFS data block defines the content, format, and units of measurement for the definition and/or exchange of friction ridge feature information that may be used in the identification of a subject based on friction ridge information. This information is intended for an individual examiner to define the content of a single impression or comparison of two impressions, as well as for interchange between criminal justice administrations or

organizations that use friction ridge information for identification purposes. This specification defines a quantifiable, repeatable, and clear method of characterizing the information content of a fingerprint or other friction ridge image.

ITL-2013 Type 9 Minutiae data records also include reserved blocks, each consisting of several fields, are registered and allocated for use by specific vendors. As these blocks may contain proprietary information, no detailed information is provided regarding the content of these vendor-defined feature sets aside from the range of field numbers in this standard. For detailed information on each of these fields, the vendor should be contacted.

EFS enhancements are the foundation of Latent Interoperability Transmission Specification (LITS) [9] transactions. LITS is an application profile of the American National Standards Institute/National Institute of Standards & Technology, Information Technology Laboratory (ANSI/NIST-ITL) standard entitled "American National Standard for Information Systems: Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information" (ANSI/NIST-ITL 1-2011) [9]. LITS is a system-level specification, parallel to and compatible with the Federal Bureau of Investigation Criminal Justice Information Services Electronic Biometric cross-jurisdictional automated friction ridge identification systems (AFIS).

The purpose of LITS is to enable seamless, efficient hierarchical (from local to State to regional to Federal) and peer to peer (local to local, State to State, etc.) searches; to simplify acquisitions by defining a uniform latent AFIS data exchange format; and to enable the interchange of latent print annotation among examiners as part of non-AFIS casework. LITS addresses latent AFIS interoperability between and among the States, local law enforcement agencies, regional organizations, and Federal organizations, such as the Department of Defense or the Department of Homeland Security [9].

1.3 DoD EBTS Evolutionary History

The DoD EBTS was originally developed based on the FBI Electronic Fingerprint Transmission Specification (EFTS) to support DoD specific use cases and requirements which were outside the

scope of the FBI EFTS. The DoD EBTS v1.2, originally published in 2006, only supported the fingerprint, face, and iris biometric modalities. As the biometric support for various DoD mission activities evolved, so did the requirements for the EBTS. Additionally, there have been huge strides in biometric technology since the earliest iteration of the EBTS which necessitated large changes to the relevant standards. Both the FBI's EBTS and the ANSI/NIST-ITL standards have undergone many iterative upgrades since the early 2000's, while the DoD still uses the DoD EBTS v1.2 with a series of small modifications tacked on to it.

In order to accommodate for a broader biometric mission set within the DoD, the Application Profile was developed to describe the ToT's and their constraints. It is used to describe customizations for individual operational scenarios that shape the use of the DoD EBTS. Beginning with EBTS v3.0, the Application Profile was packaged separate from the standard in order to support the widely varying mission sets. Having the ToT's separated from the Standard allows the system operators to develop ToT's without having to update the Standard, which drastically increases the timeliness of the change. Other improvements included the upgrade from ANSI/NIST-ITL 1-2000 to 1-2011, FBI EBTS v7 to v9.3.

Upgrades of major significance included in DoD EBTS v3.0 are the DNA modality, and logical records for Source Representation, Associated Context, and Information Assurance. Additionally, the DoD mandated the use of the NIEM data sharing framework. In order to comply with that mandate, the IEP model was adopted by the DFBA Standards Branch starting with EBTS v3.0.

The requirements of the biometrics user community continued to change following the publication of DoD EBTS v3.0, which necessitated the development of DoD EBTS v4.0. Major updates to the standard include: addition of the Type-11: Forensic and Investigatory Voice Record, the Extended Feature Set for latent fingerprint markup within Type-9, and alignment to ANSI/NIST-ITL 1-2013 and other updated USG biometric standards.

The table below clarifies the evolution of the Logical Records within the ANSI/NIST-ITL standard and thus, the various versions of the DoD EBTS. Logical Records which are no longer used are marked as deprecated, and new biometric modalities/transactional functionalities are indicated in a darker color for their first appearance in the standard.

EBTS v1.2 AUG '05	EBTS v2.0 NOV '06	EBTS v3.0 MAR '09	EBTS v4.0 SEP '15
Type-1: Transaction Information	Type-1: Transaction Information	Type-1: Transaction Information	Type-1: Transaction Information
Type-2: User Defined Descriptive Text	Type-2: User Defined Descriptive Text	Type-2: User Defined Descriptive Text	Type-2: User Defined Descriptive Text
Type-4: High Resolution Greyscale Fingerprint Image	(Deprecated)	(Deprecated)	(Deprecated)
Type-7: User Defined Image (used for FBI EFTS v7.1 Latent Images)	(Deprecated)	(Deprecated)	(Deprecated)
Type-9: Minutiae Data (using AFIS Feature Set)	Type-9: Minutiae Data (using IAFIS and INCITS M1-378 Feature Sets)	Type-9: Minutiae Data (using IAFIS and INCITS M1-378 Feature Sets)	Type-9: Minutiae Data (using IAFIS, INCITS M1-378, and Extended Feature Sets)
Type-10: Facial & Scars/Marks/Tattoos Images	Type-10: Facial & Scars/Marks/Tattoos Images	Type-10: Face, Other Body Part, or Scar, Mark, Tattoo (SMT) Image	Type-10: Photographic Body Part Imagery (including Face and SMT)
			Type-11: Forensic and Investigatory Voice Data
Type-13: Latent Image Data (Variable Resolution)	Type-13: Variable-resolution Latent Image	Type-13: Variable-resolution Latent Friction Ridge Image	Type-13: Friction-Ridge Latent Image
Type-14: Tenprint Fingerprint Impressions (Variable Resolution)	Type-14: Variable-resolution Fingerprint Image	Type-14: Variable-resolution Fingerprint Image	Type-14: Variable-resolution Fingerprint Image
	Type-15: Variable-resolution Palm print Image	Type-15: Variable-resolution Palm print Image	Type-15: Variable-resolution Palm print Image
Type-16: User-Defined Testing Image Data (Used for Iris Images)	(Deprecated)	(Deprecated)	(Deprecated)
	Type-17: Iris Image (formerly kept in Type-16)	Type-17: Iris Image	Type-17: Iris Image
		Type-18: DNA Data	Type-18: DNA Data
		Type-20: Source Representation	Type-20: Source Representation
		Type-21: Associated Context	Type-21: Associated Context
		Type-98: Information Assurance	Type-98: Information Assurance
	Type-99: CBEFF Biometric Data Record	Type-99: CBEFF Biometric Data Record	Type-99: CBEFF Biometric Data Record

Figure 2: Logical Records Supported by EBTS Version

2 DoD EBTS IEPD 2.0

The following section provides an overview of key components and concepts that comprise the DoD EBTS IEPD 2.0. The IEPD was developed utilizing the standard NIEM IEPD lifecycle process shown in Figure 3 – Standard Development Process.



Figure 3: IEP Development Process

2.1 Model Package Definition (MPD)

The NIEM MPD [10] utilized in the development of this release DoD EBTS IEPD 2.0 is a normative specification for XML data components in the format of the World Wide Web Consortium (W3C) XML Schema Definition Language [11] & [12].

NIEM is a data layer for an information architecture. Files in an MPD generally define XML Schema types and declare XML elements and attributes to use in payloads for information exchanges. The development of MPD schema documents:

- (1) Define the semantics and structure for NIEM reusable data components
- (2) Define implementable NIEM exchange instance XML documents in W3C Extensible Markup Language (XML) [13].

Creation and management of IEPDs is the responsibility of stakeholders and developers. The DoD EBTS v4.0 is a logical set of electronic files aggregated and organized to fulfill the specific purpose as defined by the DoD biometric community. Directory organization and packaging of an MPD are designed around major themes in NIEM: reuse, sharing, interoperability, and efficiency. The DoD EBTS package shall be structured as follows:

```
/dod-ebts-iepd-2 (root directory)
  dod-ebts-catalog.xml (normative artifact name)
  dod-ebts-catalog-extension.xsd
  dod-ebts-catalog-extension-xml-catalog.xml (normative artifact name)
  changelog.*
  conformance-assertion.*
  readme.*
  /xsd
  /dod-ebts
```

/xsd
/2.0
wantlist.xml
xml-catalog.xml
/itl (subset)
/xsd
/2011
/fbi-ebts (subset)
/xsd
/10.0
/genc (subset)
/xsd
/2.0.0
/niem (subset)
/appinfo
/codes
/conformanceTargets
/domains
/external
/localTerminology
/niem-core
/proxy

/structures

/extension

query.xsd

response.xsd

extension1.xsd

extension2.xsd

...

xml-catalog.xml

/external

/ic-ism

...

xml-catalog.xml

/constraint-xsd (constraint schema document sets)

/exi-xsd

gml.xsd

xs.xsd

...

/schematron

business-rules1.sch

business-rules2.sch

...

/dod-ebts-sample

query.xml

request.xml

...

/application-info

... (tool inputs, outputs, etc.)

/docs

... (human readable documentation)

2.2 Contents and Use

The DoD EBTS 2.0 IEPD contains files required by the NIEM IEPD specification for the XML documents defined using the DoD EBTS 4.0 standard. To view the IEPD files, extract all of the files from the zip archive to a folder, then open the file named catalog.html in a browser. Once extracted from the archive, all of the files in the package can be accessed through hypertext links in the catalog.html file.

Primary Representation Term	Secondary Representation Term	Definition
Amount	-	A number of monetary units specified in a currency where the unit of currency is explicit or implied.
BinaryObject	-	A set of finite-length sequences of binary octets.
	Graphic	A diagram, graph, mathematical curves, or similar representation.
	Picture	A visual representation of a person, object, or scene.
	Sound	A representation for audio.
	Video	A motion picture representation; may include audio encoded within.
Code	-	A character string (i.e. letters, figures, and symbols) that for brevity, language independence, or precision represents a definitive value of an attribute.
DateTime	-	A particular point in the progression of time together with relevant supplementary information.

Primary Representation Term	Secondary Representation Term	Definition
	Date	A particular day, month, and year in the Gregorian calendar.
	Time	A particular point in the progression of time within an unspecified 24-hour day.
	Duration	An amount of time; the length of a time span.
ID	-	A character string to identify and distinguish uniquely one instance of an object in an identification scheme from all other objects in the same scheme together with relevant supplementary information.
ID	URI	A string of characters used to identify (or name) a resource. The main purpose of this identifier is to enable interaction with representations of the resource over a network, typically the World Wide Web, using specific protocols. A URI is either a Uniform Resource Locator (URL) or a Uniform Resource Name (URN). The specific syntax for each is defined by [14].
Indicator	-	A list of two mutually exclusive Boolean values that express the only possible states of a property.
Measure	-	A numeric value determined by measuring an object along with the specified unit of measure.
Numeric	-	Numeric information that is assigned or is determined by calculation, counting, or sequencing. It does not require a unit of quantity or unit of measure.
	Value	A result of a calculation.
	Rate	A representation of a ratio where the two units are not included.
	Percent	A representation of a ratio in which the two units are the same.
Quantity	-	A counted number of nonmonetary units possibly including fractions.
Text	-	A character string (i.e., a finite sequence of characters) generally in the form of words of a language.
	Name	A word or phrase that constitutes the distinctive designation of a person, place, thing, or concept.
	List	This representation term is used in tandem with another of the denotation terms.

Figure 4: File Types Terminology

2.3 Schemas

The DoD EBTS v4.0 XML schema relies upon other schemas, reusing their elements whenever possible rather than defining new elements that would serve the same purpose as those that already exist. XML schema documents that are intended to provide the authoritative definitions of broadly reusable schema components. [15] The schemas that DoD EBTS 4.0 relies on are NIEM compliant schemas, and some are defined in U.S. national standards. This set of NIEM compliant schemas serves as the base upon which the DoD EBTS 4.0 XML schema is built.

A NIEM Naming and Design Rules document [16] is intended to be the authoritative definition of business semantics for components within its target namespace. The NIEM core schema documents, NIEM domain schema documents, and NIEM domain update schema documents are all reference schema documents. A reference schema document meets all of the following criteria:

- It is a NIEM conformant schema document.
- It is explicitly designated as a reference schema document by its own conformance targets attribute. This can be declared by an MPD catalog document or by a tool-specific mechanism outside the schema document.
- It provides the broadest, most fundamental definitions of data components in its namespace.
- It provides the authoritative definition of business semantics for data components in its namespace.
- It is intended to serve as a basis for components in IEPD schema documents, including schema document subsets, constraint schema document sets, and extension schema documents.

Namespace	IEPD Release 1.0	IEPD Release 2.0
NIEM Biometric ¹	1.0	3.2 and 1.0
NIEM ISO 3166 Country Codes	-	Transition to Geopolitical Entities Names and Codes (GENC 3.0) from the United States version of ISO-3166
NIEM Intelligence	-	3.2
NIEM JXDM Domain	4.1	5.2
DoD EBTS	3.0	4.0
FBI EBTS	9.3	10.0.3
TWPDES	2.0	3.0
ANSI/NIST-ITL 1-2011	2011	Update 2013 (Incorporation Type 11 Voice)

Figure 5: Schema Namespace Versions

Note: In the IEPD 2.0 DoD schema, elements from both NIEM Biometric reference schemas 3.2 and 1.0 are used. Both versions are referenced because not all the elements needed for our current EBTS and for the FBI EBTS 10.03 migrated from the 1.0 to the 3.2 versioning.

The NIEM schemas form the foundation for DoD EBTS v4.0 XML schema and all of the other schemas it relies on. The NIEM subset contains NIEM reference schemas and NIEM domain schemas. The schema relationships are illustrated in the following figure:

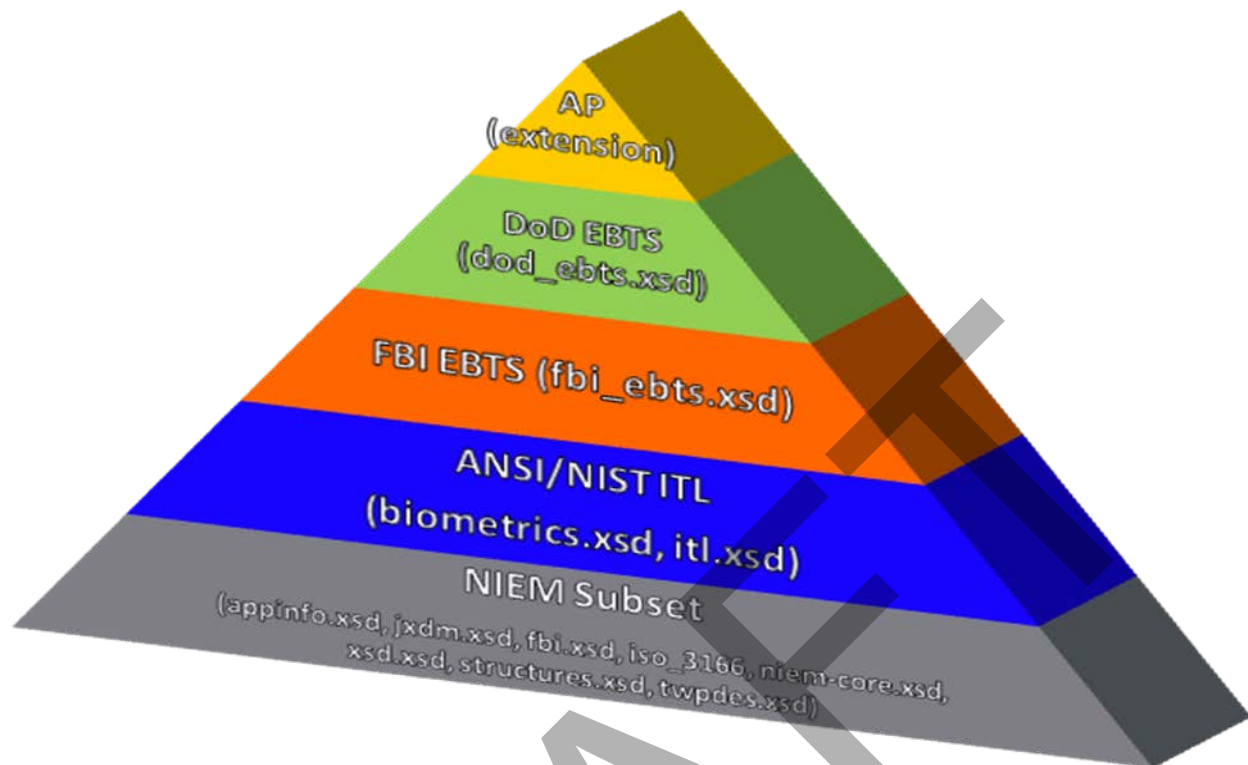


Figure 6: Schema Relationships

2.3.1 NIEM Subset Schema

Only a small part of the NIEM schemas are needed to implement DoD EBTS information exchange. Reduced versions of NIEM schemas containing a subset of elements and types needed for support are provided in this IEPD. Using the provided subset schemas reduces complexity and promotes application processing efficiency.

A NIEM schema document subset is a set of XML schema documents that constitutes a reduced set of components derived from a NIEM reference schema document or document set associated with a given numbered release or domain update. [17] The NIEM subset schemas are stored in the xsd\niem folder of the IEP. This directory includes folders for NIEM reference schema and domain schema files.

2.3.2 Exchange Schema

The exchange schemas are stored in the xsd\ folder of the IEP. The itl.xsd exchange schema contains NIEM-conformant types and elements defined in the 2011: Update 2013 version of the American National Standards Institute (ANSI) and National Institute of Standards and Technology (NIST) “Data Format for the Interchange of Fingerprint, Facial, & Other Biometric Information” [18] standard.

2.3.3 Extension Schema

A NIEM extension schema directory [17] contains components that use or are derived from the components in reference schema documents. It is intended to express additional vocabulary above and beyond the vocabulary available from reference schema documents.

The DoD EBTS schema defines requirements for exchanging biometric information in electronic format within the U.S. Department of Defense. The dod_ebts schema is based on requirements for logical record and field formats defined in the ANSI/NIST ITL standard, and requirements defined in the Department of Justice (DOJ) and FBI EBTS standard. Additional requirements needed to perform the mission and achieve the goals of the DoD are also contained in the IEP.

2.4 XML Instance Documents

DFBA Standards Branch is working on planning and developing new ToTs. As soon as the ToTs are defined, the sample XML instances and templates will be provided in the xml\ folder of the IEP in the DOD-EBTS SCHEMA 4.0. The following samples were included from DoD EBTS version 3.0 IEPD v1.0.

To facilitate the development of DoD EBTS XML instance documents and messages, sample XML instances and templates are provided in the xml\ folder of the IEP. These examples illustrate how particular DoD EBTS transactions can be constructed. More details regarding these transactions are located in the Application Profile [19] document artifact.

The following samples and templates are included in the xml\ folder:

- SMPL(CAR)CriminalTenprintSubmission
- SMPL(CNA)CriminalTenprintSubmissionNoAnswer
- SMPL(CPDR)CriminalFingerprintDirectRoute
- SMPL(DEK)DeceasedKnown
- SMPL(DEU)DeceasedUnknown
- SMPL(DPRS)DoDFlatPrintRapSheetSearch
- SMPL(ERRL)LatentTransactionError
- SMPL(ERRT)TenprintTransactionError
- SMPL(LFFS)LatentFrictionRidgeFeaturesSearch
- SMPL(LFIS)LatentFrictionRidgeImageSearch
- SMPL(MAP)MiscellaneousApplicant
- SMPL(RPSR)RapidPrintImageSearchResponse
- SMPL(SRE)SubmissionResultsElectronic
- SMPL(SRL)SearchResultsLatent
- SMPL(TPRR)TenprintRapsheetResponse
- SMPL(TPRS)TenprintRapSheetSearch
- SMPL(VEN)VoiceEnrollment
- SMPL(VEC)VoiceEnrollmentConfirmation
- SMPL(SID)SpeakerIdentification
- SMPL(SCR)SpeakerCandidateResults
- SMPL(VEX)VoiceEnrollmentExport
- SMPL(VXR)VoiceExportResults

2.5 List of Artifacts

NIEM packages are generally composed of files and file sets grouped for a particular purpose. Each file is referred to as an artifact, and each logical set of such files is called an artifact set. This DoD EBTS IEP documentation contains the set of artifacts that define the structure and content of the DoD EBTS IEP.

NIEM packages are composed of mandatory and optional artifacts. The major, normative artifacts included in this IEPD are the NIEM Subset XML schema, and the Exchange, and Extension schema described in section 2.3 of this document. The following table describes the contents of the DoD IEPD 2.0 package:

DRAFT

Artifact	Description	File Types	(R)Required/ (O)Optional
Exchange Files (normative XML)			
Subset Schema	A directory structure containing the IEP-specific subset of the full NIEM schemas. Subset schemas are located in the DoD IEPD 2.0 xsd directory.	xsd	R
Wantlist	User requirements—an SSGT-generated XML file containing user-selected NIEM components specific to an IEP. It saves the current state of a NIEM subset schema so that it can be later modified and/or regenerated. Wantlists are located in the main DoD IEPD 2.0 directory as wantlist.xml.	xml	R
Exchange Schema	Base document schema that defines the XML root element and is generally named after the IEPD itself. Also known as the document schema, reference schema, or root schema. Exchange schemas are located in the main DoD IEPD 2.0 directory as wantlist.xml.	xsd	R
Constraint Schema	Constraints for separate constraint validation path. At the publish date of this document no constraint schemas have been defined for inclusion or association with the DoD EBTS IEPD 2.0.	xsd	O
Extension Schema	Specification for extended components—separate local namespace of components not contained in NIEM. Subset schemas are located in the DoD IEPD 2.0 xsd directory.	xsd	O
Sample XML Instance	Example instances. Example XML schemas are located in the DoD IEPD 2.0 xml directory.	xml	O
Sample Stylesheet	Example stylesheet for display of instances, which may be multiple. At the publish date of this document no constraint schemas have been defined for inclusion or association with the DoD EBTS IEPD 2.0.	xsl	O

Figure 7: Table of Artifacts

Documentation			
Master Documentation	May include purpose, business requirements, what, when, why, how to, etc. Guidelines are needed for master documentation content, and the following indented items are possible documents that can be contained within the master documentation or broken out as individual files.	txt, doc	R
Business Requirements	Itemized descriptions that may also contain business rules. At the publish date of this document no constraint schemas have been defined for inclusion or association with the DoD EBTS IEPD 2.0.	txt, doc	O
MOUs	Memoranda of understanding among participating agencies.	txt, doc	O
Endorsement Letters	Documentation from professional or governmental organizations that confirm support.	txt, doc	O
Methodology and Tools	Used to build IEPD and may contain URLs or references to tools, methodology, or documentation.	txt, doc	O
Change Log	Contains a record of cumulative changes from previous IEPD versions. The initial IEPD simply records its creation date. This change log records the changes from DoD EBTS 3.0 to DoD EBTS 4.0.	xml, txt, doc	R
Use Case Model	Use case diagram in standard open format and standard graphic, likely UML.	vsd, xmi, zargo, jpg, pdf, etc.	O

Figure 6: Table of Artifacts (Cont.)

Artifact	Description	File Types	(R)Required/ (O)Optional
Documentation			
Business Rules	May contain: (1) plain or structured English, (2) written into master documentation, (3) Schematron or other formal business rule language, or (4) generated by a development tool.	xml, txt, doc	O
Mapping	Used to map changes in the DoD EBTS field set from previous releases of the standard.	xls, csv	O
Extended Components	Components created because they were not in NIEM—may be part of mapping spreadsheet and include structure and definitions of new components.	xml, xls, csv	O
Catalog Files			
Catalog	List of artifacts in the IEPD that is machine-readable; in an open, portable format; and browser displayable. .	xml, xhtml	R
Metadata	All metadata registered with the IEPD.	xml, xhtml	R

Figure 6: Table of Artifacts (Cont.)

2.6 Prefix Namespace Descriptions

An XML schema can be viewed as a collection (vocabulary) of type definitions and element declarations whose names belong to a particular namespace called a target namespace. Target namespaces enable us to distinguish between definitions and declarations from different vocabularies.

This IEPD incorporates multiple markup vocabularies. It is intended that these vocabularies will be used together in XML documents. Each vocabulary is assigned a unique namespace prefix to fully qualify its element and attribute names and differentiate these names from those found in other vocabularies.

Prefix	Namespace	Description
biom	http://release.niem.gov/niem/domains/biometrics/3.2/	NEIM ANSI/NIST Biometrics Domain <i>Note: biom Schema of Niem3.2 Version is missing some of the data elements that IEPD 2.0 (DoD ebts schema and FBI_ebts 10.03) shemas used, so IEPD 2.0 has to use both version of Biom schema from Niem 1.0 and Niem 3.2</i>
biom1	http://niem.gov/niem/biometrics/1.0	NIEM ANSI/NIST Biometrics Domain <i>Note: IEPD2.0 has to use both version of biom from Niem 2.0 and Niem 3.2. Therefore IEPD2.0 has to rename the biom prefix with biom1 for Biometric 1.0 schema element to run the code without having conflicts with biom 3.2 schema elements</i>
itl	http://biometrics.nist.gov/cs_links/standard/ansi_2015/schema-MRT/ANSI-NIST-ITL-2013_FINAL.zip	ANSI NIST 2011: Update 2013 Biometrics Domain
genc	http://release.niem.gov/niem/codes/nga_genc/3.0/	Geopolitical Entities Names and Codes (GENC 3.0) the United States replacing version of ISO-3166 <i>Note: nga_genc Schema of Niem3.2 Version has only Alpha3code, so IEPD2.0 version has to customize the nga_genc schema to include Alpha2 code and Numeric country code from Niem 2.0 to make it compatible with IEPD2.0</i>

Figure 8: DoD EBTS Namespaces Utilized

Prefix	Namespace	Description
dod-ebts	http://www.dfba.mil/References/Standards.aspx	DoD EBTS data type and complex contents extensions
niem-xs	http://release.niem.gov/niem/proxy/xsd/3.0/	Proxy types that carry dictionary metadata and have XML data type simple contents.
iso_639-3	http://release.niem.gov/niem/iso_639-3/	<i>Codes for the representation of names of languages - Part 3: Alpha-3 code for comprehensive coverage of languages.</i>
fbi-ebts	https://www.fbi/specs.cjis.gov/Document/Get?fileName=EBTS%20IEPD%2010.0.3.zip	New FBI NGI System
nist-itl	http://biometrics.nist.gov/cs_links/standard/ansi_2015/schema-MRT/ANSI-NIST-ITL-2013_FINAL.zip	ANSI NIST 2011: Update 2013 Biometrics Domain
appinfo	http://release.niem.gov/niem/appinfo/3.0	NIEM application information schema for creating types
iso_3166	http://release.niem.gov/niem/iso_3166/	Codes for the representation of names of countries and their subdivisions from the International Organization for Standardization (ISO) 3166-1:1997 <i>Note: ISO_3166 Schema of Niem3.2 Version has only Alpha2code, so IEPD2.0 version has to customize the ISO_3166 schema to include Alpha3 code and Numeric country code from Niem 2.0 to make it compatible with IEPD2.0</i>

Figure 7: DoD EBTS Namespaces Utilized (Cont.)

Prefix	Namespace	Description
j	http://release.niem.gov/niem/domains/jxdm/5.2/	Department of Justice (DOJ) base Justice Exchange information
nc	http://release.niem.gov/niem/niem-core/3.0/	NIEM Core includes both Universal (U) and Common (C) components. The identities for U and C components in Core are maintained with metadata
niem-xsd	http://release.niem.gov/niem/proxy/xsd/3.0/	The NIEM distribution proxy schema provides complex type bases for some of the simple types in the XML Schema namespace
structures	http://release.niem.gov/niem/structures/3.0/	Schema constructs for use by NIEM-conformant schemas to provide consistent definitions and functionality
twpdes	http://release.niem.gov/niem/twpdes/	Terrorist Watchlist Person Data Exchange Standard (TWPDES) [18] containing TWPDES code lists
ncic	http://release.niem.gov/niem/codes/fbi_ncic/3.0/	FBI code lists for the National Crime and Information Center (NCIC-2000). Source: FBI Criminal Justice Information Systems (CJIS) Division; Publication
xsd	http://www.w3.org/2001/XMLSchema	The XML Schema namespace
fips_10-4	http://release.niem.gov/niem/fips_10-4/2.0/	Lists two-letter country codes for the US Countries, Dependencies, Areas of Special Sovereignty, and Their Principal Administrative Divisions
ucr	http://release.niem.gov/niem/ucr/2.0/	The People Screening domain provides harmonized information sharing content within the Screening Portfolio of DHS.
ndex	http://release.niem.gov/niem/codes/fbi_ndex/3.0/	FBI Criminal Justice Information Systems (CJIS) Division; Publication: National Data Exchange (N-Dex) Specification (a NIEM IEPD); Version: 2.2;
xs	http://www.w3.org/2001/XMLSchema	The XML Schema definition language, which offers facilities for describing the structure and constraining the contents of XML documents.

Figure 7: DoD EBTS Namespaces Utilized (Cont.)

2.7 Type 2 Historical Cross-Walk

This document will contain a historical progression of the mapping of the ANSI NIST ITL Types from version 1.2 to the latest version 4.0. This crosswalks reflects a "lateral" (one-way) progressive mappings from one standard version to another. The mapping matrix will identify:

- Elements that were split up with different parts of it placed in multiple other elements in the next version ("one-to-many" mapping).
- Cardinality differences between different versions of an element.
- Transitions in data formats (e.g. John Doe or Doe John Cornelius Jr).
- Hierarchical changes in element composition.
- Element code list or type reference changes.
- New key components introduced into the standard (i.e. ANSI NIST ITL Type 9 Extended Feature Set – EFS)

2.8 Application Profile

The DoD EBTS standard is working on the development effort to provide data elements for the application profile. The application profile uses Integrated Data Dictionary v6.0 elements to fully describe the unique requirements of a particular operational environment.

An application profile includes:

- Transaction details for each transaction:
 - o which fields are mandatory or optional for each logical record;
 - o how many occurrences of each field are required/allowed;
 - o which logical records are mandatory or optional; and
 - o how many occurrences of each logical record are required/allowed.
- Definition of the names and purposes of each transaction;
- The identifier assigned by DFBA to name the Application Profile (to be placed in the Application Profile Specifications field (1.016));

- Conformance requirements for both originators and receivers of transactions.

An application profile can specify the conformance requirements of a DoD EBTS implementation to improve the likelihood of interoperable applications. Once an application profile is reviewed by the DoD Forensic and Biometric Standards Working Group (FBSWG), new content can be added to extend the DoD EBTS schema. User defined application profiles can also be used to provide additional schema constraints.

The current baseline application profile is provided on the Defense Forensics and Biometrics Agency (DFBA) website. This document serves as a useful example of an approved profile. Application profile-based XML instance documents must validate against the DoD EBTS schema and any user defined elements and constraints.

Constraint schemas in an application profile can further restrict the DoD EBTS schema. User defined constraints must conform to all NIEM Naming and Design Rules requirements. They may only further restrict DoD EBTS defined components. They may not be used to relax DoD EBTS restrictions.

2.9 XML Structuring

The XML encoding rules conform to the National Information Exchange Model (NIEM), which facilitates interoperability for information sharing among multiple government agencies. The XML encoding includes rules for how use redefined extensions may be included inside the standard XML package, but do not define how the package may be wrapped in other XML structures.

2.9.1 ANSI NIST ITL XML Conventions

The data formats for the Interchange of Fingerprint, Facial& Other Biometric Information ANSI/NIST-ITL 1-2011 Update: 2013 [1] developed for electronically encoding and transmitting biometric image, identification, and arrest data that extends the ANSI/NIST-ITL standard. The

ANSI/NIST-ITL is developed and maintained in conjunction with the National Institute of Standards and Technology (NIST) and the biometric identification community.

- **Fields**

A field is used to transmit a particular datum or group of closely related data. A single type of data that may have multiple entries in a field is shown as Subfield: repeating values in the record layout tables. Single or multiple types of data in a field that do not repeat are shown as information items in the record layout tables. Data with different formats that repeat as a set are shown as information items grouped under the heading: Subfields: Repeating sets of information items. The handling of subfields varies by encoding.

- **Transaction Sets**

A transaction package shall consist of two or more logical records. There may be multiple records in a transaction of each record type other than Type-1. There shall be at least one other record of another Type. A record is comprised of fields. Within the standard, each field is assigned a number, a description and a mnemonic.

For most record types, an individual record generally contains biometric and/or forensic data for a single subject. There are some scenarios where a record may pertain to multiple subjects, such as a Type-11 recording with multiple speakers, or a Type-20 image of evidence with fingerprints from various people. A given transaction may require that all records apply to a single subject, or may contain records from different subjects.

Thus, there is a difference between the subject of the transaction and the subject of the record. It may be desirable in certain transactions to have separate Type-2 records when dealing with multiple persons whose identities are being used to establish or verify the identity of the subject of the transaction (such as persons already identified in a voice recording). The value is the IDC of the associated Type-2 record, which is different from that of the record with the Type-2 Record cross reference / T2C contained in it.

- **Transaction Concept**

A conceptual diagram of a DoD EBTS transaction set is shown below.

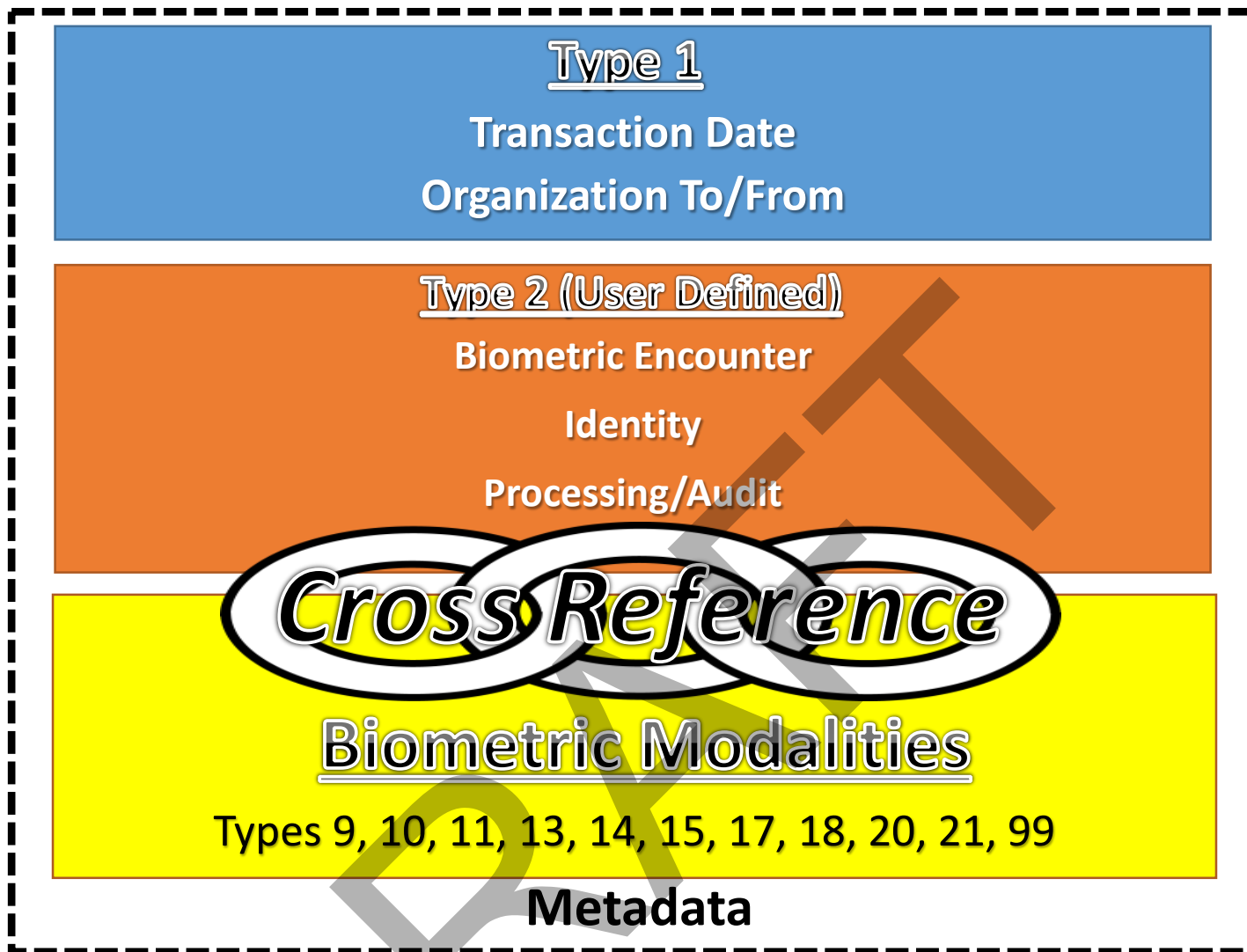


Figure 9: DoD EBTS 4.0 Transaction Concept

Type-1 shall always be recorded in all encodings using the characters that can be represented by the 7-bit American National Standard Code for Information Interchange (ASCII).

Type-2 records shall contain user-defined textual fields providing identification and descriptive information associated with the subject of the transaction. Each entry in a Type-2 record shall have a definition and format that is listed with the Domain owner. Data contained in this record shall conform in format and content to the specifications of the domain name(s) as listed in Field 1.013: Domain name / DOM found in the Type-1 record, if that field is in the transaction.

In order to track relationships among instances of records in a transaction, some special pointer indexes are used within the Record Types. The information designation character / IDC (called image designation character in previous versions of the standard) occurs in each instance of a record, except Record Type-1. It occurs as Field xx.002 in those records.

There is an upper limit of 100 IDC values, since they are numbered from 0 to 99. There may be no gaps in numbering the IDC values; that is, they must be sequential. However, there is no requirement that the values must be in increasing numeric order. The only restrictions on order is that the Type-1 record shall be the first record in the transaction, and that the records must appear in the order indicated in Field 1.003: Transaction content / CNT. Two or more records may share a single IDC solely to identify and link together records that pertain to different representations of the same biometric trait.

2.9.2 XML Record Container

Each ANSI NIST ITL 2011: Update 2013 record type contains XML elements as defined in the DoD EBTS IDD 4.0 (denoted by “...” In Figure 9 below). Each record is contained within an XML envelope to define the boundaries of that record type.

Record Type	Type XML Record Container
1	<code><nist-itl:PackageInformationRecord></code> <code></nist-itl:PackageInformationRecord></code>

Figure 10: XML Record Container

Record Type	Type XML Record Container
2	<pre> <nist-itl:PackageDescriptiveTextRecord> <nist-itl: UserDefinedDescriptiveDetail> </nist-itl: UserDefinedDescriptiveDetail> <nist-itl: DomainDefinedDescriptiveDetail> </nist-itl: DomainDefinedDescriptiveDetail> <nist-itl: OtherDescriptiveDetail> </nist-itl: OtherDescriptiveDetail> </nist-itl:PackageDescriptiveTextRecord> </pre>
9	<pre> <nist-itl:PackageMinutiaeRecord> </nist-itl:PackageMinutiaeRecord> </pre>
10	<pre> <nist-itl:PackageFacialAndSMTImageRecord> </nist-itl:PackageFacialAndSMTImageRecord> </pre>
11	<pre> <nist-itl:PackageVoiceRecord> </nist-itl:PackageVoiceRecord> </pre>
13	<pre> <nist-itl:PackageLatentImageRecord> </nist-itl:PackageVoiceRecord> </pre>

Figure 9: XML Record Container (Cont.)

Record Type	Type XML Record Container
14	<code><nist-itl:PackageFingerprintImageRecord></code> <code></nist-itl:PackageFingerprintImageRecord></code>
17	<code><nist-itl:PackageIrisImageRecord></code> <code></nist-itl:PackageIrisImageRecord></code>
18	<code><nist-itl:PackageDNAREcord></code> <code><nist-itl:PackageDNAREcord></code>
20	<code><nist-itl:PackageSourceRepresentationRecord></code> <code></nist-itl:PackageSourceRepresentationRecord></code>
21	<code><nist-itl:PackageAssociatedContextRecord></code> <code></nist-itl:PackageAssociatedContextRecord></code>
98	<code><nist-itl:PackageInformationAssuranceRecord></code> <code></nist-itl:PackageInformationAssuranceRecord></code>
99	<code><nist-itl:PackageCBEFFBiometricDataRecord></code> <code></nist-itl:PackageInformationAssuranceRecord></code>

Figure 9: XML Record Container (Cont.)

2.9.3 Character Set Conventions

Each XML information element, tags and data content, in a transaction shall be represented by a character set that is a subset of Unicode and that is allowable by W3C XML. In order to ensure that the transaction description information can be read by all systems, data for all fields in

Record Type-1 shall always be recorded in all encodings using the characters that can be represented by the 7-bit American National Standard Code for Information Interchange (ASCII). [21]

The 2007 version of the ANSI NIST ITL standard allowed users to switch any data (except that contained in the Type-1 record) to an alternative character encoding using a mechanism employing special control characters. This capability is retained in this version of the standard for Traditional encoding to ensure backward compatibility.

The default character encoding for Traditional encoding is 7-bit ASCII. For XML, the default is UTF-8. It is not possible to switch character encodings in XML, but users are encouraged to state the character encoding (normally UTF-8) and version (1.0) in Field 1.015: Character encoding / DCS. [1]

<?xml version='1.0' encoding='UTF-8'>

The data contained in an information item may be of the following types [1]:

| | |
|--------|---|
| A | Alphabetic: 26 English letters (both upper and lower case) |
| AN | Alphanumeric: Alphabetic and numeric 1 2 3 4 5 6 7 8 9 0 |
| ANS | Alphanumeric and special characters that are specifically stated in the description of the data (such as period or comma) |
| AS | Alphabetic and special characters that are specifically stated in the description of the data (such as period or comma) |
| B | Binary for Traditional encoding or Base64 for XML |
| Base64 | Base-64 encoded (exclusively) |
| H | Hexadecimal representation: 0 1 2 3 4 5 6 7 8 9 A B C D E F |
| N | Numeric: 1 2 3 4 5 6 7 8 9 0 |

- NS Numeric with special characters that are specifically stated in the description of the data (such as period or comma)
- U Unicode characters: Latin and extended Latin characters like u, N, c, P, s, t, ä, and special characters like £, €, ™, +, *, ‡, and non-Latin characters like ₪, ₯, Å, Ъ, ж, э, 旬, ت, ۛ, and の.

The special characters “STX”, “ETX”, “^F S”, “^G S”, “^R S”, and “U S” are reserved and shall not be included in any data (except data marked as character type B).

Binary image data may be constructed in either compressed or uncompressed form, then shall be converted to ASCII characters prior to transmission using Base-64 encoding. Base-64 shall be used for converting non-ASCII text into ASCII form, where required and noted in the standard.

Binary data fields, other than image data, in the Type- 4, 7, and 8 records have been given conventional XML element tags.

3 Conformance

3.1 DoD EBTS Implementation Conformance

DoD EBTS implementations shall conform to the mandatory features of ANSI/NIST-ITL 1-2011 (Update 2013) and to the mandatory features of this specification which are defined by the Type of Transaction (ToT) in the associated Application Profile. Each ToT within the application profile will have its own conformance requirements.

A DoD EBTS v4.0 transaction is conformant to ANSI/NIST-ITL 1-2011 (Update 2013) standard if the Biometric Electronic File Transaction (EFT) is capable of being morphologically (satisfies all of the normative morphological requirements related to its data structure and data values), syntactically (satisfies all of the normative requirements related to the relationships between

fields, subfields, or information items) and semantically (checks if the biometric transaction is a faithful representation of the parent biometric data and ensures requirements are satisfied that are not merely syntactical or morphological) conformant to the requirements of the standard.

The same rules shall also apply to the usage of FBI EBTS v10 data fields utilized in the Type-2 logical record.

3.2 NIEM

The NIEM information exchange reference model is not a strict standard against which conformance is easily measured. All parts of the NIEM need not be used in a given IEPD for that IEPD to conform to NIEM requirements. Even the NIEM Conformance Validation tool is not “the authoritative source for NIEM conformance”, and therefore, cannot “guarantee or be used to certify full NIEM conformance”.

Implementers may create constraint schemas that add any of the schemas used in this standard. These constraint schemas must follow the rules for NIEM constraint schemas as they are defined in the NIEM Naming and Design Rules. They may only be used to add constraints and restrictions to components; they must not loosen the standard by allowing content that is not allowed by the schemas upon which they are based.

NIEM conformance rules were followed during the development of this DoD EBTS IEPD. These rules served as guidelines for achieving our goal of creating a common, unambiguous understanding of biometric information that could be shared across the DoD and with its information exchange partners.

This DoD EBTS IEPD conforms to the following NIEM conformance rules and guidance:

- All instances are XML valid and validate against all NIEM reference schemas used
- All IEPD schemas import and reference required NIEM namespaces
- Where appropriate, existing NIEM components (e.g., types, elements, attributes, etc.) were used

- All NIEM components were used in accordance with their definitions
- All required artifacts have been defined and provided following the NIEM IEPD Lifecycle
- All schema components adhere to the NIEM Naming and Design Rules (NDR).

3.3 NIST

NIST Special Publication 500-295 Conformance Testing Methodology for ANSI/NIST-ITL 1-2011, Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information (Release 1.0) [22] contains conformance assertions for Record Types 1, 4, 10, 13, 14, 15, and 17.

3.4 DoD EBTS Domain

The domain for a transaction is identified by the Domain Name field (1.013). ANSI/NIST ITL 1-2011 defines an implementation domain as “a group of organizations that have agreed to use specific pre-assigned data blocks for exchanging information unique to their installations.” The ANSI/NIST-ITL uses implementation domains to define common sets of Type-2 tags. The DoD EBTS allows an application profile to define much more (including transactions). The DFBA is the domain registrar for the DoD EBTS implementation domain and assigns values for this field. Users requiring a unique Domain Name in lieu of the default values below must contact the DFBA Standards Branch and the DFBA Watch Desk. Users of the DoD EBTS v4.0 domain shall populate the field as follows:

Field 1.013 Domain Name:

- Subfield 1.013_1 Domain Name (DNM) – NORAM
- Subfield 1.013_2 Domain Version Number (DVN) – DoD EBTS 4.0

3.5 DoD ABIS Backward Compatibility

To achieve backward compatibility, it is the onus of the DFBA Standards Branch, in conjunction with the rest of the DoD Biometrics enterprise, to produce versions of the EBTS which facilitate

modern and legacy biometric transactions for as long as is operationally and financially reasonable. Additionally, the DoD Authoritative Biometric Repository (i.e., ABIS and future evolutions of the authoritative repository) must maintain the capability to process transactions conforming to DoD legacy standards (e.g. DoD EBTS v1.2). Systems that collect DoD EBTS data shall plan their acquisition phases accordingly and use the mandated DoD Information Technology Standards and Profile Registry (DISR) EBTS version for data transmission. Legacy collection systems that utilize older versions of the DoD EBTS shall receive responses that conform to their respective versions.

3.6 Encounter Protection

DoD EBTS v4.0 identifies Field 2.351 for Encounter Protection. However, Field 2.351 Encounter Protection shall not be configurable by the user or the biometric capturing device (i.e., Encounter Protection is for internal use only at this time). Submissions from organizations that must use Encounter Protection should contact BIMA operations and the DFBA Standards Branch to coordinate the use of Encounter Protection with them. It is the responsibility of ABIS to follow the Encounter Protection business rules based on the Originating Agency Identifier.

3.7 Transaction Control Numbers (TCN)

A control number is an identification number which is assigned to a submission and carried through on the response for tracing purposes. The Transaction Control Number (TCN) is a unique identifier generated by the system that submits the transaction. When a transaction is sent to a system that receives and generates responses, the Transaction Control Reference (TCR) in the response(s) will be the TCN used in the submission. A TCN is mandatory for a submission, and a TCR is mandatory for a response. These values are contained in the Type-1 record of a DoD EBTS transaction.

Upon submitting a transaction to a DoD repository, the submitter places his control number in the TCN field in the Type-1 record. For submissions not requiring reference to a prior transaction,

the TCR field is omitted. When the DoD repository has completed processing the transaction and generates the response, it places the submitter's control number (the received TCN) into the TCR field of the response as a reference number the submitter can use to mate the response with the original submission. The DoD repository also places its own internal identifier for that transaction in the TCN field of the response. Figure 10 illustrates, as an example, the TCN and TCR in the transaction flow in the DoD ABIS.

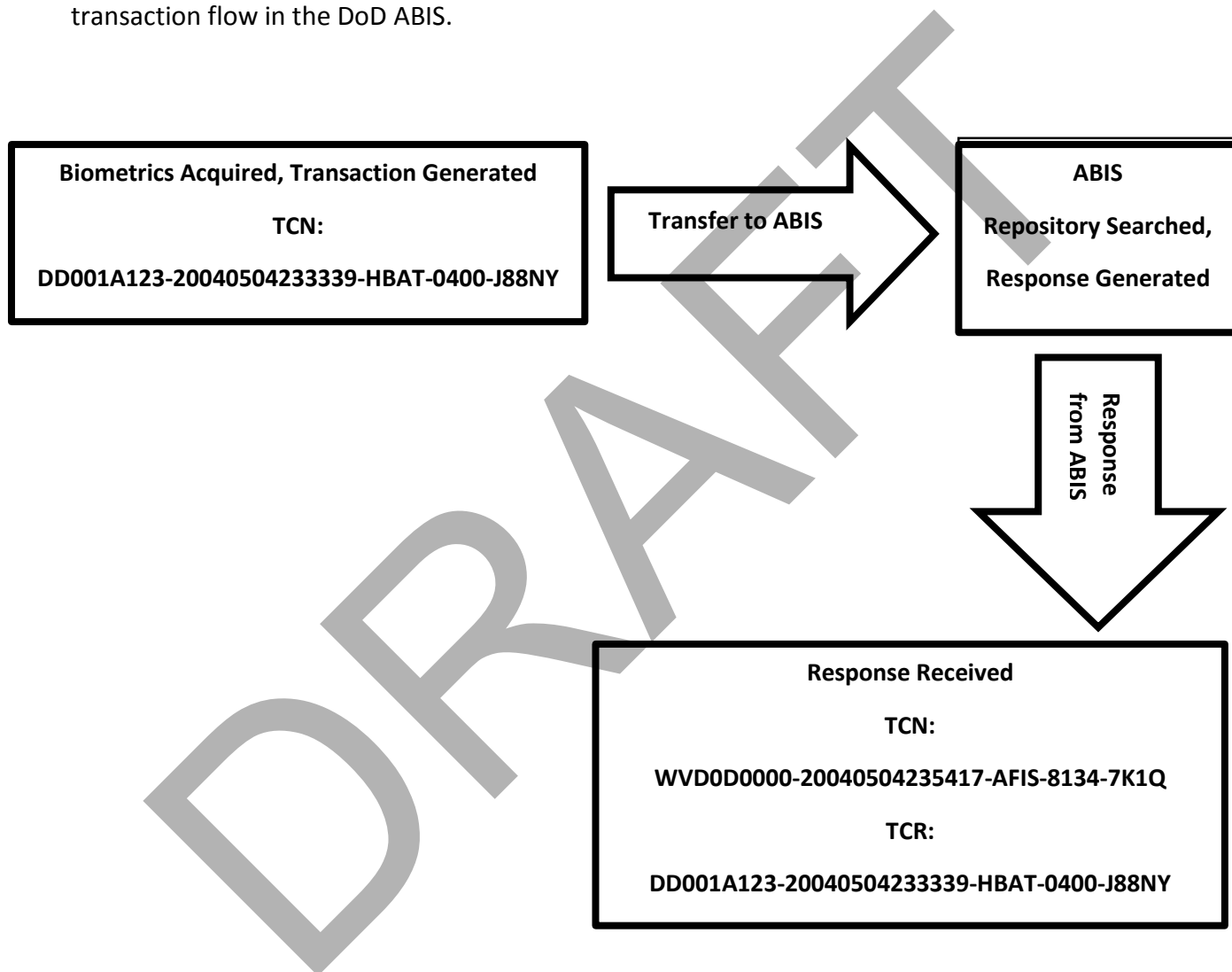


Figure 11: Transaction Submission and Response Sequence

The DoD EBTS requires a 40-byte TCN that contains

- the Originating Agency Identifier (ORI);
- a Greenwich Mean (a.k.a. Zulu or UTC) date/time stamp;
- a code for the software used at the point of collection/transmission;
- an indicator of the software version used at the point of collection/transmission; and
- a random or sequential alphanumeric string.

A hyphen separates each of these values. Figure 11 illustrates the makeup of the TCN.

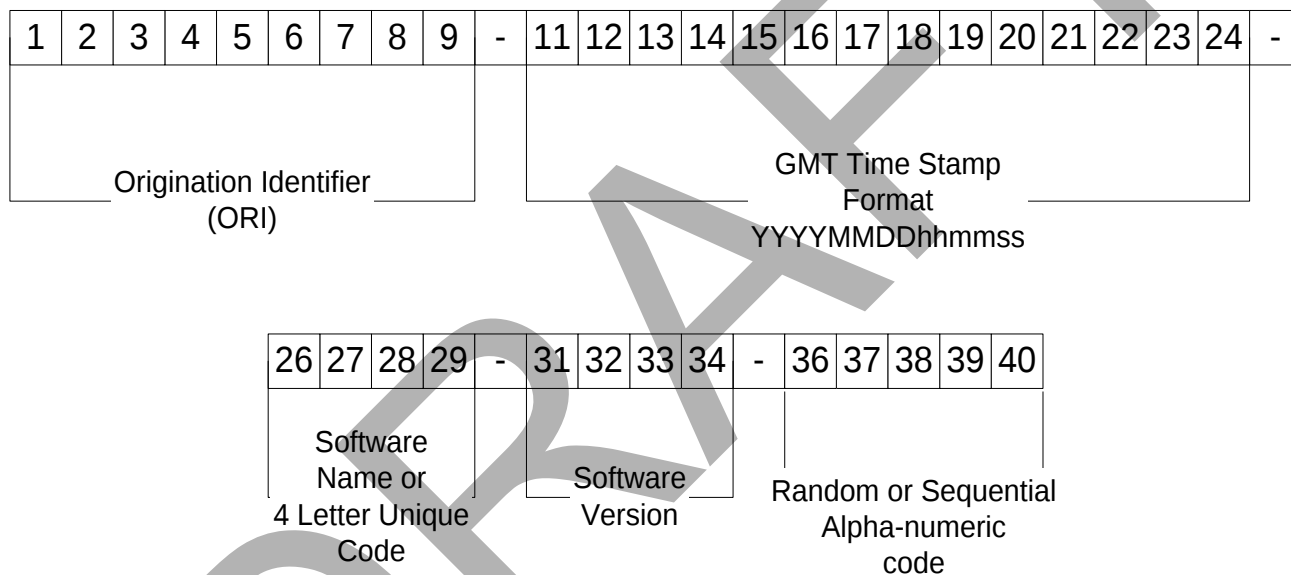


Figure 12: TCN Layout

The BIMA Watch Desk will assign a unique software code to a product. Software developers must contact the BIMA Watch Desk to obtain a four-letter software code (Figure 11, TCN blocks 26 – 29). This code must be used consistently in the software product.

Systems that initiate transactions must assign TCNs rather than permit operators to enter them. A TCN shall be unique and shall not be reused. Matching a TCN to a TCR is the method used to match DoD EBTS responses to DoD EBTS submissions. It is strongly suggested the filename for the Electronic File Transaction is the TCN.

3.8 Origination Identifiers (ORI)

The mandatory origination field shall contain the ORI identifying the agency or organization submitting the transaction. For DoD EBTS purposes, this field shall be a nine-byte alphanumeric field. The BIMA will assign an ORI code to entities that submit directly to DoD ABIS. Those DoD entities must contact the BIMA Watch Desk to obtain an ORI.

Historically, the DoD has underutilized the Originating Agency Identifier (ORI)/Controlling Agency Identifier (CRI) chain of custody. In order to properly track an EBTS file from origin to current owner, custodians of a biometric file must adhere to the following guidance. Upon generation of a new biometric file, no CRI is required because the originator is indicated by the ORI. When the file is passed to a different system, the existing ORI is entered into the CRI field, and replaced by the ORI of the system which is submitting the file. This forms a chain of file custodians in the CRI field, and can thusly be used as a digital chain of custody for a biometric file. An example of this process is as follows.

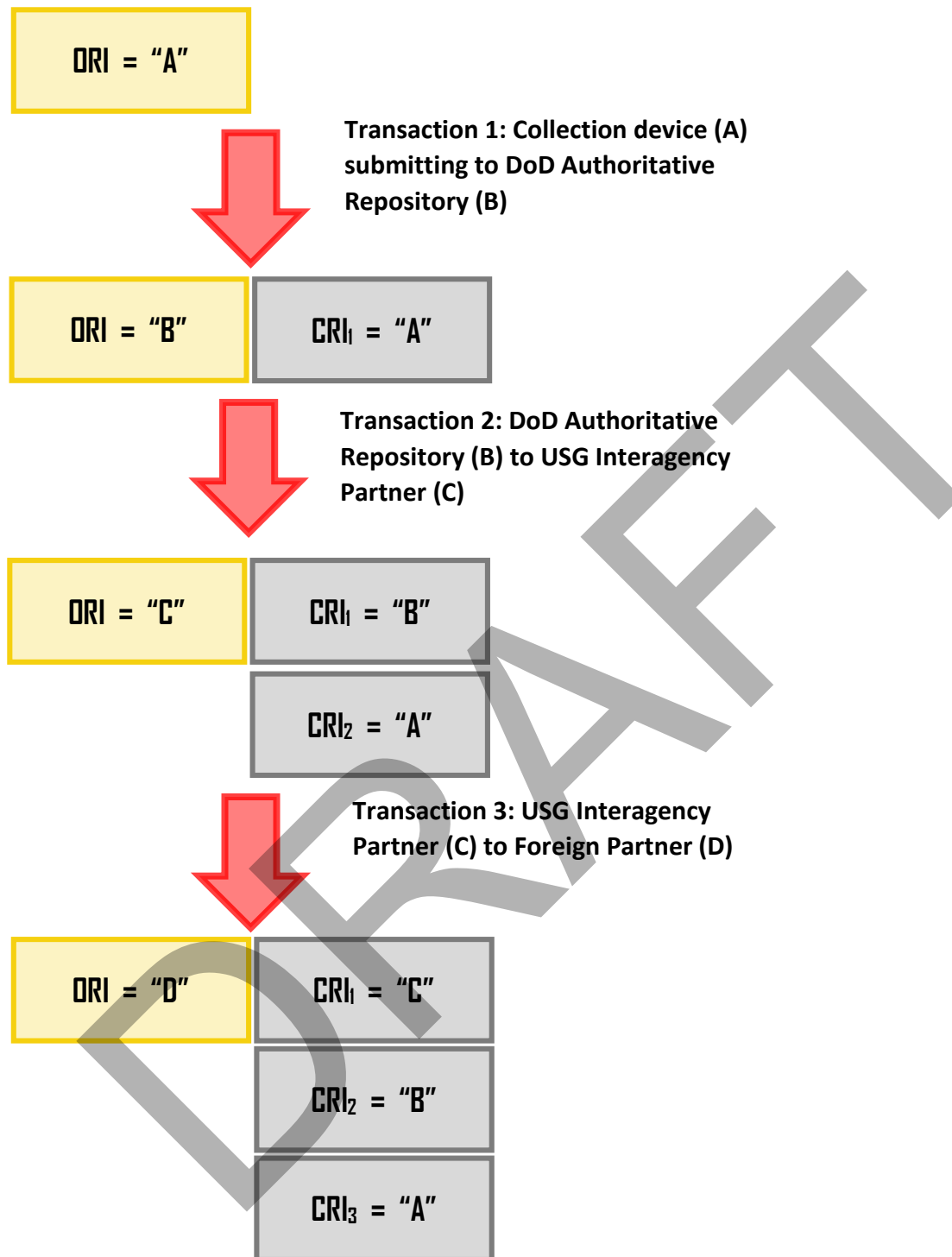


Figure 13: ORI/CRI Chain of Custody Example

3.9 Tagged Fields and Separator Characters

In the construction and interpretation of the logical record, the tag number should not be taken as having a fixed number of digits. The format for each field consists of the logical record type number followed by a period (.), a field number followed by a colon (:), followed by the information appropriate to that field. The tagged-field number can be any one- to nine-digit string occurring between the period and the colon. It shall be interpreted as an unsigned integer field number. This implies that a field number of 2.123 is equivalent to and shall be interpreted in the same manner as a field number of 2.00000123. For example, in this version of the standard, Type-2 logical record field tags are shown as having three or four digits between the decimal point and colon (2.NNN:data or 2.NNNN:data). The field numbers should be parsed as all digits between the period and colon. In the construction and interpretation of the logical record, there is no requirement that the tagged fields be present within the logical record in any given order, with the exception of the Length (LEN) and Image Designation Character (IDC), which must be in the first and second position in the record, respectively. However, for those record types conveying image data (e.g., 13.999: DATA), the data field will always be the last field in the string.

Separator characters may best be understood by considering them necessary for what follows them, not what precedes them. Thus, when a tagged field includes subfields and another subfield is still to follow, the following subfield must be separated from the one preceding it by the unit separator character. If what is to follow is a repetition of a field or group of subfields, a record separator must separate the preceding field or group of subfields from the repetition to follow. If what is to follow is a new field, then the group separator character is used. If the record is complete after the previous field, the file separator is used.

Per ITL 1-2013, successive separator characters may be used with no intervening blank or other character when a subfield is missing. In Type-2 records, DoD EBTS recognizes the following sequences as meaning that a subfield is missing: <US><US>, <US><RS>, <US><GS>, and

<US><FS>. These are needed to obviate the need for the receivers of transactions to validate each subfield in a grouped field to see whether it contains valid data or is merely a blank.

3.10 Error Handling

In the interpretation of a transaction, fields that are not defined for the requested transaction are to be ignored; their inclusion is not to be considered an error.

Fields should not be transmitted when there is no value present (e.g., ... 2.033:<GS> ...).

However, receipt of such an empty field, if the field is not mandatory, should not result in rejection of the submission or issuance of an error message. Rejection may occur, however, when missing or incorrect data would frustrate processing of the transaction.

Systems that receive transactions (submissions or responses) shall ignore data that are not defined in the DoD EBTS or appropriate application profile. The Figure below defines the actions that shall be taken when unrecognized data are received.

| Error Condition | Action |
|--|---|
| Unrecognized TOT
(as indicated by field 1.004 TOT) | Return an “Unauthorized EBTS Transaction” transaction error response to the submitter. |
| Unrecognized Record
(the binary or tagged-field record is not a Type-1, Type-2, Type-9, Type-10, Type-11, Type-13, Type-14, Type-15, Type-17, Type-18, Type-20, Type-21, Type-98 or Type-99) | Complete transaction and return appropriate response to the submitter. Ignore the unrecognized record and complete the transaction with appropriate response. |
| Unrecognized Field | Complete transaction and return appropriate response to the submitter. Ignore the unrecognized field and complete the transaction with appropriate response. |

Figure 14: Error Handling Chart

| Error Condition | Action |
|---|--|
| Unrecognized Subfield | Complete transaction and return appropriate response if possible. Otherwise, return an "EBTS Field Parse Error" transaction error response to the submitter. |
| Unrecognized Data in Tagged-Field Record | Complete transaction and return appropriate response if possible. Otherwise, return an "EBTS Field Parse Error" transaction error response to the submitter. |

Figure 13: Error Handling Chart (Cont.)

3.11 Image Quality and Image Sets Requirements

In the interest of maintaining an accurate and usable database of biometric data, minimum image quality requirements must be followed for images submitted in DoD EBTS transactions.

Fingerprint Image Quality and Image Sets (Type-14)

Fingerprint image quality requirements are defined in Appendix F of the FBI EBTS v10.0. From an image quality perspective only, any system certified by the FBI for use with NGI meets DoD EBTS image quality requirements.

Rolled fingerprint samples shall be captured with each finger rolled from one side of the fingernail to the other. The collection of a "complete set" of fingerprint samples shall include any of the following image submissions:

14 Images:

- Rolled or Flat image of each of the 10 fingers
- One Four Finger Slap image of the right hand (no thumb)
- One Four Finger Slap image of the left hand (no thumb)
- One Flat image of the right thumb
- One Flat image of the left thumb

13 Images:

Rolled or Flat image of each of the 10 fingers

One Four Finger Slap image of the right hand (no thumb)

One Four Finger Slap image of the left hand (no thumb)

One Two Thumb Slap Fingerprint image

10 Images:

Rolled or Flat image of each of the 10 fingers

An explanation for any required but missing fingerprints shall be provided in field 14.018 Amputated or Bandaged. Field 14.018 shall accurately represent the reason for each missing fingerprint. This field has two subfields: Finger Position Code (FGP) and Amputated or Bandaged Code (AMPCD). Both subfields are required if field 14.018 is present. Subfield FGP is a two-digit code that specifies which finger is missing. Subfield AMPCD uses the value "XX" when there is an actual amputation and the value "UP" (unable to print) for all other situations.

FBI EBTS identifies a Type-2, Field 2.084 Amputated or Bandaged (AMP) to indicate if the Type-14 fingerprint submission does not contain a full set of fingerprints as described above. DoD EBTS v4.0 recommends the use of ITL 1-2011 Field 14.018 in order to adhere to business rules developed for this standard. However, Field 2.084 should be used to include the contextual information if a Type-14 record is not submitted or to indicate why a slap image and/or plain thumb image is missing.

In addition, DoD EBTS v4.0 does not recommend the practice of stitching fingerprint images (e.g., the right and left thumb images were captured separately, but combined prior to transmission to create a single artificial two-thumb image). For devices which are not able to submit the four finger slap image and/or two thumb slap image due to limitations on the capturing device, the AMP field shall instead be populated to indicate the Finger Position Code and Amputated or Bandaged Code.

Palmprint Image Quality and Image Sets (Type-15)

Palmprint image quality requirements shall follow the same image requirements and compression standards as identified for fingerprint image quality. All palmprint images shall be acquired directly from a subject using a live-scan device or approved palmprint card. Whichever method is used should be capable of providing a set of images for each hand.

A complete palmprint set contains the following images for both hands:

- One writer's palm image from each hand
- Either one full palm image (the entire area of the full palm extending from the wrist bracelet to the tips of the fingers) from each hand or
- One upper palm image from each hand (extends from the bottom of the interdigital area to the upper tips of the fingers) and one lower palm image (shall extend from the wrist bracelet to the top of the interdigital area (third finger joint) from each hand or
- One palm thenar area image, one palm hypothenar area image, and one palm interdigital area image from each hand.

An explanation for any missing palmprint images is optional. Field 15.018 and its associated subfields shall be used to indicate any missing images. The Type-2 Field 2.8112 has been added to EBTS v3.0 and may be used to indicate if a Type-15 record is not able to be submitted.

Facial Photo Image Quality and Image Sets (Type-10)

All photographs shall be taken using a color camera. The camera lens orientation (photographer) shall be pointed to the front of the person, aligned approximately in the center of the face, and taken from a distance of approximately five feet. The orientation(s) of the person for facial photos shall be taken from the following options:

- Frontal view (also known as full-frontal pose);
- 90 degrees left side;
- 45 degrees left side;
- 90 degrees right side; or
- 45 degrees right side.

When photographed, the person shall not be allowed to wear any glasses, sunglasses, or other items obscuring the area photographed. The person may choose to expose only the area from ear to ear and hairline to chin (for example, to not require the removal of a headdress). There are no constraints on cosmetics.

The full frontal pose should be captured in accordance with one of the following:

- ANSI INCITS 385-2004, “Face Recognition Format for Data Interchange”, clauses 8.2, 8.3, and 8.4 (The Full Frontal Image Type). NOTE: this document may be retired in favor of the ISO document below; or
- Annex A, Best Practices for Basic Face Images, of ISO/IEC 19794-5, Information technology — Biometric data interchange formats — Part 5: Face Image Data.

Iris Image Quality and Image Sets (Type-17)

An iris record shall contain an image of a single iris. Note: this does not imply that image capture equipment must be used twice to collect two images. If a single image of both the left and right eye is captured, further processing must result in two separate records.

Images should be captured in accordance with Annex A, Iris Image Capture, of ISO/IEC 19794-6, Information technology — Biometric data interchange formats — Part 6: Iris image data.

4 Record Layout Tables

The following tables are snapshots of each ANSI/NIST ITL Record Type, and include only a minimal set of representative data for each field, subfield, or information item. They were included in order to enhance user awareness of the standard, and are to be used as an easy way to reference basic information within a given field. For normative information about each data element within a field, refer to the Integrated Data Dictionary v6.0.

- **Repeating Subfields Designator**

- o In the ANSI (American National Standards Institute) NIST (National Institute of Standards and Technology) 1-2011: Update 2013 field guidance table a new field was introduced to designate repeating subfields of information. The repeating subfield ID and Mnemonic will be indicated with and _0 designator.

- **Hierarchical Arrows (Conditionality)**

- o New in the ANSI NIST 2011: Update 2013 field tables are hierarchical dependency arrow indicators located in the Optional field. The DoD EBTS IDD page construct has also chosen to include this new morphological field construct.

- **Traditional vs. XML Encoding Differences:**

- o Where the content or structure of a field or information item would differ between Traditional (Binary) and XML encodings, they are differentiated by a “T =” or “X =” preceding the information.
- o For example, Field 13.001:

| Field Min | Field Max | Value Constraints |
|--------------|--------------|---|
| T = 4; X = 1 | T = 8; X = 2 | T = positive integer;
X = <RecordCategoryCode> |

- **Character Types:**

- o Dep. = Dependent upon encoding (Traditional vs XML)
- o “A”, “N”, “S”, and “U” are sets of ANSI/NIST ITL defined character types.

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|------------------------------------|---|----------|-------|-------------------------|-------------------------|-----------|-----------|------------|
| 1.001 | Record Header | | LEN | M | Encoding Specific | Encoding Specific | 1 | 1 | N |
| 1.002 | Version Number | | VER | M | T = 4 ; X = 3 | 4 | 1 | 1 | N |
| 1.003 | Transaction Content | | CNT | M | n/a | n/a | 1 | 1 | n/a |
| 1.003_0 | Transaction Content | Subfield: Single set of information items | CNT_0 | M | n/a | n/a | 1 | 1 | n/a |
| 1.003_1a | Transaction Content | First Record Category Code | FRC | M | 1 | 1 | 1 | 1 | N |
| 1.003_1b | Transaction Content | Content Record Count | CRC | M | 1 | 3 | 1 | 1 | N |
| 1.003_2 | Transaction Content | Content Record Summary | REC | M | n/a | n/a | 1 | * | n/a |
| 1.003_2a | Transaction Content | Subfield: Single set of information items | REC_0 | M | n/a | n/a | 1 | * | n/a |
| 1.003_2a | Transaction Content | Record Category Code | REC | M | 1 | 2 | 1 | 1 | N |
| 1.003_2b | Transaction Content | Information Designation Character | IDC | M | 1 | 2 | 1 | 1 | N |
| 1.004 | Type of Transaction | | TOT | M | Encoding Specific | Encoding Specific | 1 | 1 | A |
| 1.005 | Date | | DAT | M | Encoding Specific | Encoding Specific | 1 | 1 | N |
| 1.006 | Priority | | PRY | O | 1 | 1 | 0 | 1 | N |
| 1.007 | Destination Agency Identifier | | DAI | M | 1 | Unlimited | 1 | 1 | ANS |
| 1.008 | Originating Agency Identifier | | ORI | M | 1 | Unlimited | 1 | 1 | ANS |
| 1.009 | Transaction Control Number | | TCN | M | 1 | Unlimited | 1 | 1 | ANS |
| 1.01 | Transaction Control Reference | | TCR | O | 1 | Unlimited | 0 | 1 | ANS |
| 1.011 | Native Scanning Resolution | | NSR | M | T = 5; X = 4 | 5 | 1 | 1 | NS |
| 1.012 | Nominal Resolution | | NTR | M | T = 5; X = 4 | 5 | 1 | 1 | NS |
| 1.013 | Domain Name | | DOM | O | n/a | n/a | 0 | 1 | n/a |
| 1.013_1 | Domain Name | Domain Name Implementation | DNM | M↑ | 1 | Unlimited | 1 | 1 | ANS |
| 1.013_2 | Domain Name | Domain Name Implementation Version | DVN | O↑ | 1 | Unlimited | 0 | 1 | ANS |
| 1.014 | Greenwich Mean Time | | GMT | O | Dependent upon encoding | Dependent upon encoding | 0 | 1 | AN |
| 1.015 | Application Profile Specifications | Character Encoding | DCS | O | n/a | n/a | 0 | 1 | n/a |
| 1.015_0 | Application Profile Specifications | Subfield: A single set of information items | DCS_0 | M↑ | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|-------------------------------------|--|----------|-------|--------------|--------------|-----------|-----------|------------|
| 1.015_1 | Character Encoding | Character Encoding Set Index | CSI | M↑ | 1 | 3 | 0 | 1 | N |
| 1.015_2 | Character Encoding | Character Encoding Set Name | CSN | M↑ | 1 | 16 | 1 | 1 | ANS |
| 1.015_3 | Character Encoding | Character Encoding Set Version | CSV | O | 1 | 16 | 1 | 1 | ANS |
| 1.016 | Application Profile Specifications | | APS | O | n/a | n/a | 0 | 1 | n/a |
| 1.016_0 | Application Profile Specifications | Subfields: Repeating sets of information items | APS_0 | M↑ | n/a | n/a | 0 | 99 | n/a |
| 1.016_1 | Application Profile Specifications | Application Profile Specifications | APO | M↑ | 1 | Unlimited | 0 | 99 | ANS |
| 1.016_2 | Application Profile Specifications | Application Profile Name | APN | M↑ | 1 | Unlimited | 0 | 99 | ANS |
| 1.016_3 | Application Profile Specifications | Application Profile Version Number | APV | M↑ | 1 | Unlimited | 0 | 99 | ANS |
| 1.017 | Agency Names | | ANM | O | n/a | n/a | 1 | 1 | n/a |
| 1.017_1 | Agency Names | Destination Agency Name | DAN | O↑ | 1 | Unlimited | 0 | 1 | ANS |
| 1.017_2 | Agency Names | Originating Agency Name | OAN | O↑ | 1 | Unlimited | 0 | 1 | ANS |
| 1.018 | Geographic Name Set | | GNS | O | 3 | 4 | 0 | 1 | AN |
| 2.001 | Record Header | | LEN | M | T = 2; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 2.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 2.003 | FBI File Number | | FFN | n/a | 10 | 10 | 0 | 1 | N |
| 2.005 | Retention Code | | RET | O | 1 | 1 | 0 | 1 | A |
| 2.006 | Attention Indicator | | ATN | O | 3 | 30 | 0 | 1 | ANS |
| 2.007 | Send Copy to | | SCO | O | 9 | 19 | 0 | 9 | ANS |
| 2.009 | Originating Agency Case Number | | OCA | O | 1 | 20 | 0 | 1 | ANS |
| 2.01 | Contributor Case Identifier Number | | CIN | O | n/a | n/a | 1 | 5 | n/a |
| 2.010_0 | Contributor Case Identifier Number | Subfields: Repeating sets of information items | CIN_0 | M↑ | n/a | n/a | 1 | 5 | n/a |
| 2.010_1 | Contributor Case Identifier Number | Contributor Case Identifier Prefix | CIN_PRE | M↑ | 1 | 24 | 1 | 1 | ANS |
| 2.010_2 | Contributor Case Identifier Number | Contributor Case Identifier | CIN_ID | M↑ | 1 | 24 | 1 | 1 | ANS |
| 2.013 | Latent Case Number Extension | | LCX | O | 5 | 5 | 1 | 1 | N |
| 2.014 | FBI Number UCN | | FBI | O | 1 | 9 | 0 | 1000 | AN |
| 2.015 | State Identification Number | | SID | O | 3 | 10 | 0 | 1000 | ANS |
| 2.016 | Social Security Account Number | | SOC | O | 9 | 9 | 0 | 4 | N |
| 2.017 | Miscellaneous Identification Number | | MNU | O | 4 | 15 | 0 | 4 | ANS |
| 2.018 | Name Legacy | | NAM | O | n/a | n/a | 0 | 1 | AS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|-----------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 2.018_1 | Name Legacy | Surname | NAM1 | O | 3 | 50 | 1 | 1 | AS |
| 2.018_2 | Name Legacy | Given Name | NAM2 | O | 3 | 50 | 0 | 1 | AS |
| 2.018_3 | Name Legacy | Middle Name | NAM3 | O | 3 | 50 | 0 | 1 | AS |
| 2.019 | Aliases Legacy | | AKA | O | 3 | 50 | 0 | 1 | AS |
| 2.02 | Place of Birth | | POB | O | 2 | 2 | 0 | 1 | A |
| 2.021 | Country of Citizenship | | CTZ | O | 2 | 2 | 0 | 10 | A |
| 2.022 | Date of Birth | | DOB | O | 8 | 8 | 0 | 5 | N |
| 2.023 | Age Range | | AGR | O | 4 | 4 | 0 | 1 | N |
| 2.024 | Sex | | SEX | O | 1 | 1 | 0 | 1 | A |
| 2.025 | Race Legacy | | RAC | O | 1 | 1 | 0 | 1 | A |
| 2.026 | Scars, Marks and Tattoos | | SMT | O | 3 | 10 | 0 | 10 | AS |
| 2.027 | Height Legacy | | HGT | O | 3 | 3 | 1 | 1 | AN |
| 2.028 | Height Range | | HTR | O | 6 | 6 | 1 | 1 | AS |
| 2.029 | Weight Legacy | | WGT | O | 3 | 3 | 1 | 1 | N |
| 2.03 | Weight Range | | WTR | O | 6 | 6 | 1 | 1 | N |
| 2.031 | Color Eyes | | EYE | O | 3 | 3 | 0 | 1 | A |
| 2.032 | Hair Color | | HAI | O | 3 | 3 | 0 | 1 | AS |
| 2.034 | Pattern Level Classifications | | PAT | O | n/a | n/a | 0 | 1 | n/a |
| 2.034_0 | Pattern Level Classifications | Subfields: Repeating sets of information items | PAT_0 | M↑ | n/a | n/a | 1 | 10 | n/a |
| 2.034_1 | Pattern Level Classifications | Finger Number | FGP | M↑ | 2 | 2 | 1 | 10 | N |
| 2.034_2 | Pattern Level Classifications | Pattern Classification Code | PATCL | M↑ | 2 | 2 | 1 | 1 | A |
| 2.035 | Palmprints Available Indicator | | PPA | O | 1 | 1 | 0 | 1 | A |
| 2.038 | Date Printed | | DPR | O | 8 | 8 | 0 | 1 | N |
| 2.039 | Employer and Address | | EAD | O | 1 | 120 | 0 | 1 | ANS |
| 2.04 | Occupation | | OCP | O | 1 | 50 | 0 | 1 | U |
| 2.041 | Residence of Person Fingerprinted | | RES | O | 1 | 120 | 0 | 1 | ANS |
| 2.042 | Military Code | | MIL | O | 1 | 1 | 0 | 1 | A |
| 2.043 | Type of Search Requested | | TSR | O | 1 | 1 | 0 | 1 | A |
| 2.045 | Date of Arrest | | DOA | O | 8 | 8 | 0 | 1 | N |
| 2.046 | Date of Arrest - Suffix | | DOS | O | 1 | 1 | 0 | 1 | A |
| 2.047 | Arrest Segment Literal | | ASL | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|---|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 2.047_0 | Arrest Segment Literal | Subfields: Repeating sets of information items | ASL_0 | M↑ | n/a | n/a | 0 | 40 | n/a |
| 2.047_1 | Arrest Segment Literal | Date of Offense | DOO | O | 8 | 8 | 0 | 1 | N |
| 2.047_2 | Arrest Segment Literal | Arrest Offense Literal | AOL | M↑ | 1 | 300 | 1 | 1 | ANS |
| 2.051 | Court Segment Literal | | CSL | O | n/a | n/a | 0 | 1 | n/a |
| 2.051_0 | Court Segment Literal- Subfields: Repeating sets of information items | | CSL_0 | O | n/a | n/a | 0 | 40 | n/a |
| 2.051_1 | Court Segment Literal | Court Disposition Date | CDD | O | 8 | 8 | 0 | 1 | N |
| 2.051_2 | Court Segment Literal | Court Offense Literal | COL | M↑ | 1 | 300 | 1 | 1 | ANS |
| 2.051_3 | Court Segment Literal | Other Court Sentence Provision Literal | CPL | M↑ | 1 | 300 | 1 | 1 | ANS |
| 2.051_4 | Court Segment Literal | Court Disposition | CDN | M↑ | 1 | 32 | 1 | 1 | A |
| 2.051_5 | Court Segment Literal | Court Count Number | CCT | O | 2 | 2 | 0 | 1 | N |
| 2.053 | Offense Category | | OFC | O | 1 | 1 | 0 | 1 | N |
| 2.054 | Custody or Supervisory Status Start Date | | SSD | O | 8 | 8 | 0 | 1 | N |
| 2.055 | Custody or Supervisory Literal | | SLE | O | 1 | 300 | 0 | 1 | ANS |
| 2.056 | Identification Comments | | ICO | O | 1 | 50 | 0 | 1 | ANS |
| 2.057 | Finger Numbers Requested | | FNR | O | 2 | 2 | 0 | 13 | N |
| 2.059 | Search Results Findings | | SRF | O | 1 | 1 | 0 | 1 | A |
| 2.06 | Status/Error Message | | MSG | O | 1 | 300 | 0 | 1000 | ANS |
| 2.061 | Case Title | | CST | O | 1 | 50 | 0 | 1 | AS |
| 2.062 | Image Type | | IMT | O | 1 | 2 | 0 | 1000 | N |
| 2.064 | Candidate List | | CAN | O | n/a | n/a | 0 | 1 | n/a |
| 2.064_0 | Candidate List | Subfields: Repeating sets of information items | CAN_0 | O | n/a | n/a | 1 | 99 | n/a |
| 2.064_1 | Candidate List | Universal Control Number | SI | M↑ | 1 | 9 | 1 | 1 | AN |
| 2.064_2 | Candidate List | Name | NAM | M↑ | 3 | 30 | 1 | 1 | AS |
| 2.065 | Repository Statistics Response | | RSR | O | 1 | 96000 | 0 | 1 | ANS |
| 2.067 | Image Capture Equipment | | IMA | O | n/a | n/a | 0 | 1 | n/a |
| 2.067_1 | Image Capture Equipment | Image Capture Equipment Legacy Derivable | MAK | M↑ | 1 | 25 | 1 | 1 | ANS |
| 2.067_2 | Image Capture Equipment | Originating Fingerprint Reading System Model Legacy Derivable | MODL | M↑ | 1 | 25 | 0 | 1 | ANS |
| 2.067_3 | Image Capture Equipment | Originating Fingerprint Reading System Model Legacy Derivable | SERNO | M↑ | 1 | 50 | 0 | 1 | ANS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 2.07 | Request for Electronic Rap Sheet | | RAP | O | 1 | 1 | 0 | 1 | A |
| 2.071 | Action to be Taken | | CAN | O | 0 | 300 | 0 | 1 | ANS |
| 2.072 | Fingerprint Images Updated | | FIU | O | 1 | 2 | 0 | 13 | AN |
| 2.073 | Controlling Agency Identifier | | CRI | O | 9 | 9 | 0 | 99 | ANS |
| 2.074 | Finger Numbers Requested | Finger Position | FGP | O | 2 | 2 | 1 | 10 | N |
| 2.075 | Electronic Rap Sheet | | ERS | O | 4 | 200000 | 0 | 1 | ANS |
| 2.078 | Penetration Query Response | | PEN | O | 2 | 0 | 0 | 1 | N |
| 2.079 | Number of Candidates' Images Returned | | NCR | O | 1 | 2 | 0 | 1 | N |
| 2.08 | Response Explanation | | EXP | O | 1 | 50 | 0 | 1 | ANS |
| 2.082 | Response Code | | REC | O | 1 | 1 | 0 | 1 | A |
| 2.083 | Unsolved Latent File | | ULF | O | 1 | 1 | 0 | 1 | A |
| 2.084 | Amputated or Bandaged | | AMP | O | n/a | n/a | 0 | 1 | n/a |
| 2.084_0 | Amputated or Bandaged | Subfields: Repeating sets of information items | AMP_0 | O | n/a | n/a | 0 | 13 | n/a |
| 2.084_1 | Amputated or Bandaged | Finger Position Code | FGP | M↑ | 2 | 2 | 1 | 1 | N |
| 2.084_2 | Amputated or Bandaged | Amputated or Bandaged Code | AMPCD | M↑ | 2 | 2 | 1 | 1 | A |
| 2.086 | AFIS Segment Control Number | | SCNA | O | 1 | 10 | 0 | 1 | AN |
| 2.087 | Treat As Adult | | TAA | O | 1 | 1 | 0 | 1 | A |
| 2.088 | Note Field | | NOT | O | 1 | 1000 | 0 | 1 | ANS |
| 2.089 | Match Score | | MSC | O | 1 | 6 | 0 | 1 | N |
| 2.091 | Ridge Core Delta One for Subpattern Classification | | RCD1 | O | n/a | n/a | 0 | 1 | n/a |
| 2.091_0 | Ridge Core Delta One for Subpattern Classification | Subfields: Repeating sets of information items | RCD1_0 | M↑ | n/a | n/a | 0 | 1 | n/a |
| 2.091_1 | Ridge Core Delta One for Subpattern Classification | Finger Position Code | FGP | M↑ | 2 | 2 | 1 | 10 | N |
| 2.091_2 | Ridge Core Delta One for Subpattern Classification | First Subpattern Ridge Count | RCN1 | M↑ | 1 | 2 | 0 | 2 | N |
| 2.092 | Ridge Core Delta Two for Subpattern Classification | | RCD2 | O | n/a | n/a | 0 | 1 | n/a |
| 2.092_0 | Ridge Core Delta Two for Subpattern Classification | Subfields: Repeating sets of information items | RCD2_0 | M↑ | n/a | n/a | 0 | 1 | n/a |
| 2.092_1 | Ridge Core Delta Two for Subpattern Classification | Finger Position Code | FGP | M↑ | 2 | 2 | 1 | 10 | N |
| 2.092_2 | Ridge Core Delta Two for Subpattern Classification | Second Subpattern Ridge Count | RCN2 | M↑ | 1 | 2 | 0 | 2 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--|--|-------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.095 | Repository Statistics Response | | RFR | O | 1 | 1 | 0 | 1 | A |
| 2.096 | Request Photo Record | | RPR | O | 1 | 1 | 0 | 1 | A |
| 2.098 | Name of Designated Repository | | NDR | O | 1 | 3 | 0 | 10 | N |
| 2.3 | BAT Global Unique Identifier | | GUID | O | 36 | 38 | 0 | 1 | ANS |
| 2.302 | Internment Serial Number | | ISN | O | 15 | 16 | 0 | 1 | ANS |
| 2.303 | DoD Number | | DOD_NO | O | 1 | 9 | 0 | 5 | AN |
| 2.308 | Electronic Data Interchange Personal Identifier | | EDIPI | O | 1 | 50 | 0 | 1 | ANS |
| 2.309 | Defense Biometric Identification System Identifier | | DBIDS_ID | O | 10 | 50 | 0 | 1 | ANS |
| 2.31 | Biometric Subject Personnel Type | | PER_TY
E | O | 3 | 50 | 0 | 47 | AS |
| 2.316 | Request Mug Shot | | RMS | O | 1 | 1 | 0 | 1 | A |
| 2.317 | Request IAFIS Search | | RIS | O | 1 | 1 | 0 | 1 | A |
| 2.318 | XML-based Rap Sheet | | XML | O | 4 | 400000 | 0 | 1 | ANS |
| 2.334 | Submission Color Code | | SCC | O | 3 | 3 | 0 | 1 | A |
| 2.335 | Dossier Number | | DOSSIER | O | 1 | 50 | 0 | 1 | ANS |
| 2.35 | Alert | | ALERT | O | n/a | n/a | 0 | 1 | n/a |
| 2.350_0 | Alert | Subfields: Repeating sets of information items | ALERT_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 2.350_1 | Alert | Alert Function | ALERT_F
UN | M↑ | 1 | 1 | 1 | 1 | N |
| 2.350_2 | Alert | Alert Category | ALERT_C
AT | M↑ | 1 | 1 | 1 | 1 | N |
| 2.350_3 | Alert | Alert Value | ALERT_V
AL | M↑ | 1 | 1 | 1 | 1 | N |
| 2.350_4 | Alert | Alert Contact | ALERT_C
ONTACT | M↑ | 1 | 80 | 1 | 1 | U |
| 2.350_5 | Alert | Alert Detail | ALERT_D
ETAIL | M↑ | 1 | 255 | 0 | 1 | U |
| 2.351 | Encounter Protection | | EP | O | Encoding Specific | Encoding Specific | 0 | 1 | n/a |
| 2.351_1 | Encounter Protection | Encounter Protection Function | EP_FUN | M↑ | 1 | 1 | 1 | 1 | N |
| 2.351_2 | Encounter Protection | Encounter Protection Level | EP_LEVEL | M↑ | 1 | 1 | 1 | 1 | N |
| 2.85 | Biometric Modality Available | | BIO_MO
D_0 | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|------------------------------|---|------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.850_0 | Biometric Modality Available | Subfields: Repeating sets of information items | BIO_MO
D | O | n/a | n/a | 0 | * | n/a |
| 2.850_1 | Biometric Modality Available | Modality Type | MOD_TY
PE | O | 3 | 6 | 0 | 1 | A |
| 2.850_2 | Biometric Modality Available | Modality Sub-Type | MOD_ST
YPE | O | 1 | 5 | 0 | 1 | AN |
| 2.850_3 | Biometric Modality Available | Name of Designated Repository | MOD_RE
PO | O | 1 | 3 | 0 | 1 | N |
| 2.850_4 | Biometric Modality Available | Modality Location Originating Agency Identifier | MOD_LO
C | O | 9 | 9 | 1 | 1 | AN |
| 2.850_5 | Biometric Modality Available | Modality Retrieval Identifier Type | MOD_ID
_TYPE | O | 1 | 50 | 0 | 1 | A |
| 2.850_6 | Biometric Modality Available | Modality Retrieval Identifier | MOD_ID | O | 1 | 50 | 0 | 1 | U |
| 2.850_7 | Biometric Modality Available | Comment | MOD_CO
M | O | 1 | 126 | 0 | 1 | U |
| 2.851 | Biometric Modality Request | | BIO_MO
DR | O | n/a | n/a | 0 | 1 | n/a |
| 2.851_1 | Biometric Modality Request | Modality Type | MODR_T
YPE | M↑ | 3 | 6 | 1 | 1 | A |
| 2.851_2 | Biometric Modality Request | Modality Sub-Type | MODR_S
UBTYPE | O | 1 | 5 | 0 | 1 | AN |
| 2.851_3 | Biometric Modality Request | Name of Designated Repository | MODR_R
EPO | O | 1 | 3 | 0 | 1 | N |
| 2.851_4 | Biometric Modality Request | Modality Location Originating Agency Identifier | MODR_A
GENCY | O | 9 | 9 | 1 | 1 | AN |
| 2.851_5 | Biometric Modality Request | Modality Retrieval Identifier Type | MODR_I
D_TYPE | O | 1 | 50 | 0 | 1 | A |
| 2.851_6 | Biometric Modality Request | Modality Retrieval Identifier | MODR_I
D | O | 1 | 50 | 0 | 1 | U |
| 2.851_7 | Biometric Modality Request | Requested Image Quantity | MODR_Q
UAL | O | 0 | 2 | 0 | 1 | N |
| 2.852 | Biometric Subject Body Build | | SUBJ_BUI
LD | O | 1 | 1 | 0 | 1 | A |
| 2.853 | Biometric Subject Education | | SUBJ_ED | O | 2 | 2 | 0 | 1 | N |
| 2.854 | Collection Unit | | SUBJ_SPE
C | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--------------------------------------|--|----------------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.854_1 | Collection Unit | Superior Unit | SUBJ_SPE
C_VAL | M↑ | 1 | 50 | 1 | 1 | U |
| 2.854_2 | Collection Unit | SubSuperior Unit | SUBJ_SPE
C_PRO | O | 1 | 50 | 0 | 1 | U |
| 2.855 | Military Association | | MIL_ASS
OC | O | n/a | n/a | 0 | 1 | n/a |
| 2.855_1 | Military Association | Military Branch Country Code | MIL_CNT
RY | M↑ | 2 | 3 | 1 | 1 | AN |
| 2.855_2 | Military Association | Military Branch Name | MIL_BRN
CH | M↑ | 1 | 50 | 1 | 1 | U |
| 2.855_3 | Military Association | Rank Grade Code | MIL_RAN
K | O | 1 | 20 | 0 | 1 | ANS |
| 2.855_4 | Military Association | Military Active Indicator | MIL_IND | O | 1 | 1 | 0 | 1 | A |
| 2.856 | Previous Transaction | Identification | PREV_TR
AN | O | n/a | n/a | 0 | 1 | n/a |
| 2.856_1 | Previous Transaction | Identifier Type | PREV_TR
AN_1 | M↑ | 1 | 20 | 1 | 1 | A |
| 2.856_2 | Previous Transaction | Previous Transaction Identifier | PREV_TR
AN_2 | M↑ | 1 | 100 | 1 | 1 | ANS |
| 2.856_3 | Previous Transaction | Transaction Association | PREV_TR
AN_3 | O | 1 | 100 | 0 | 1 | ANS |
| 2.858 | Vendor Software | | SOFT_VE
N | O | n/a | n/a | 0 | 1 | n/a |
| 2.858_0 | Vendor Software | Subfields: Repeating sets of information items | SOFT_VE
N_0 | M↑ | n/a | n/a | 1 | 99 | n/a |
| 2.858_1 | Vendor Software | Software Vendor Name | SOFT_VE
N_1 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.858_2 | Vendor Software | Software Application Name | SOFT_VE
N_2 | O | 1 | 50 | 1 | 1 | U |
| 2.858_3 | Vendor Software | Software Application Version Number | SOFT_VE
N_3 | O | 1 | 255 | 1 | 1 | U |
| 2.859 | Biometric Subject Previous Residence | | SUBJ_PR
EV_RESID
E | O | | | 0 | 1 | n/a |
| 2.859_1 | Biometric Subject Previous Residence | Address Line 1 | SUBJ_PR
EV_RESID
E_1 | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|-------------------------|-----------------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.859_2 | Biometric Subject Previous Residence | Address Line 2 | SUBJ_PR
EV_RESID
E_2 | O | 1 | 50 | 0 | 1 | U |
| 2.859_3 | Biometric Subject Previous Residence | City | SUBJ_PR
EV_RESID
E_3 | O | 1 | 50 | 0 | 1 | U |
| 2.859_4 | Biometric Subject Previous Residence | State / Province | SUBJ_PR
EV_RESID
E_4 | O | 1 | 50 | 0 | 1 | U |
| 2.859_5 | Biometric Subject Previous Residence | Country Code | SUBJ_PR
EV_RESID
E_5 | O | 3 | 3 | 0 | 1 | A |
| 2.859_6 | Biometric Subject Previous Residence | Postal Code | SUBJ_PR
EV_RESID
E_6 | O | 1 | 50 | 0 | 1 | ANS |
| 2.859_7 | Biometric Subject Previous Residence | Neighborhood / District | SUBJ_PR
EV_RESID
E_7 | O | 1 | 50 | 0 | 1 | U |
| 2.859_8 | Biometric Subject Previous Residence | Village | SUBJ_PR
EV_RESID
E_8 | O | 1 | 50 | 0 | 1 | U |
| 2.859_9 | Biometric Subject Previous Residence | Address Validity | SUBJ_PR
EV_RESID
E_9 | O | 3 | 3 | 0 | 1 | A |
| 2.859_10 | Biometric Subject Previous Residence | Start Date | SUBJ_PR
EV_RESID
E_10 | O | Encoding Specific | Encoding Specific | 0 | 1 | N |
| 2.859_11 | Biometric Subject Previous Residence | End Date | SUBJ_PR
EV_RESID
E_11 | O | Encoding Specific | Encoding Specific | 0 | 1 | N |
| 2.201 | Number of Images Requested | | NIR | O | 1 | 2 | 0 | 1 | N |
| 2.2022 | Contributor Assigned Identification Number | | CIDN | O | 10 | 10 | 0 | 1 | AN |
| 2.2023 | Supplementary Identity Information | | SII | O | 4 | 10000 | 0 | 1 | ANS |
| 2.2024 | Hit Type Indicator | | HTI | O | 1 | 10 | 0 | 1 | A |
| 2.2028 | Biometric Image Description | | BID | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|------------------------------|--|---------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.2028_0 | Biometric Image Description | Subfields: Repeating sets of information items | BID_0 | O | n/a | n/a | 1 | 1000 | n/a |
| 2.2028_1 | Biometric Image Description | FBI Number/UCN | SI | O | 1 | 50 | 1 | 1 | ANS |
| 2.2028_2 | Biometric Image Description | Image Type | IMT | M↑ | 1 | 2 | 0 | 1 | N |
| 2.2028_3 | Biometric Image Description | Biometric Set Identifier | BSI | O | 4 | 24 | 0 | 1 | N |
| 2.2028_4 | Biometric Image Description | Friction Ridge Position Requested | FNR | O | 2 | 2 | 0 | 1 | N |
| 2.2028_5 | Biometric Image Description | Print Position Descriptors | PPD | O | 5 | 5 | 0 | 1 | AN |
| 2.2028_6 | Biometric Image Description | Pose Code | POS | O | 1 | 1 | 0 | 1 | A |
| 2.2028_7 | Biometric Image Description | SMT Code | SMT | O | 3 | 10 | 0 | 1 | A |
| 2.2029 | Biometric Set Identifier | | BSI | O | 4 | 24 | 0 | 1000 | N |
| 2.2030 | Print Position Descriptors | | PPD | O | n/a | n/a | 0 | 10 | n/a |
| 2.2030_1 | Print Position Descriptors | Friction Ridge Generalized Position | FGP | M↑ | 1 | 2 | 1 | 1 | N |
| 2.2030_2 | Print Position Descriptors | Finger Image Code | FIC | M↑ | 3 | 3 | 1 | 1 | AN |
| 2.2031 | Biometric Image Available | | BIA | O | 1 | 2 | 0 | 6 | N |
| 2.2032 | Audit Trail Record | | ATR | M↑ | n/a | n/a | 0 | 1 | n/a |
| 2.2032_0 | Audit Trail Record | Subfields: Repeating sets of information items | ATR_0 | M↑ | n/a | n/a | 1 | 100 | n/a |
| 2.2032_1 | Audit Trail Record | Originating Agency Identifier | ORI | M↑ | 9 | 9 | 1 | 1 | AN |
| 2.2032_2 | Audit Trail Record | Date of Dissemination | DAT | O | 8 | 8 | 1 | 1 | N |
| 2.2032_3 | Audit Trail Record | TOT of Dissemination | TOT | O | 3 | 5 | 1 | 1 | A |
| 2.2032_4 | Audit Trail Record | Biometric Set Identifier Disseminated | BSI | O | 4 | 24 | 0 | 1 | N |
| 2.2032_5 | Audit Trail Record | Image Type Disseminated | IMT | O | 1 | 2 | 0 | 1 | N |
| 2.2032_6 | Audit Trail Record | Friction Ridge Position Requested | FNR | O | 2 | 2 | 0 | 1 | N |
| 2.2032_7 | Audit Trail Record | Print Position Descriptors | PPD | O | 5 | 5 | 0 | 1 | AN |
| 2.2032_8 | Audit Trail Record | Subject Pose | POS | O | 1 | 1 | 0 | 1 | A |
| 2.2032_9 | Audit Trail Record | NCIC SMT Code | SMT | O | 3 | 10 | 0 | 1 | A |
| 2.2033 | Candidate Investigative List | | CNL / CAN | O | n/a | n/a | 0 | 1 | n/a |
| 2.2033_0 | Candidate Investigative List | Subfields: Repeating sets of information items | CNL_0 / CAN_0 | M↑ | n/a | n/a | 0 | 3 | n/a |
| 2.2033_1 | Candidate Investigative List | FBI Number/UCN | SI | M↑ | 1 | 50 | 1 | 1 | ANS |
| 2.2033_2 | Candidate Investigative List | Master Name | NAM | O | 3 | 50 | 0 | 1 | AS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|-------------------------------|---|------------------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 2.2033_3 | Candidate Investigative List | Biometric Set Identifier | BSI | O | 4 | 24 | 0 | 1 | N |
| 2.2033_4 | Candidate Investigative List | Image Type | IMT | O | 1 | 2 | 0 | 1 | N |
| 2.2033_5 | Candidate Investigative List | Friction Ridge Generalized Position | FGP | O | 2 | 2 | 0 | 1 | N |
| 2.2033_6 | Candidate Investigative List | Print Position Descriptors [Type-2, subfield to fields of Type Set] | PPD | O | 5 | 5 | 0 | 1 | AN |
| 2.2033_7 | Candidate Investigative List | Match Score | MSC | O | 1 | 6 | 0 | 1 | N |
| 2.2033_8 | Candidate Investigative List | Biometric Image Available | BIA | O | 1 | 2 | 0 | 1 | N |
| 2.2033_9 | Candidate Investigative List | Name of Designated Repository | NDR | O | 1 | 400 | 0 | 1 | N |
| 2.2033_10 | Candidate Investigative List | Information Designation Character | IDC | O | 2 | 2 | 0 | 1 | N |
| 2.2033_11 | Candidate Investigative List | Note Field | NOT | O | 1 | 1000 | 0 | 1 | ANS |
| 2.2033_12 | Candidate Investigative List | Subject Pose | POS | O | 1 | 1 | 0 | 1 | ANS |
| 2.2033_13 | Candidate Investigative List | SMT Code | SMT | O | 3 | 10 | 0 | 1 | ANS |
| 2.2034 | Unsolved Latent Retained | | ULR | O | 1 | 1 | 0 | 1 | A |
| 2.8003 | Biometric Subject Birth Date | | SUBJ_BIRTHDATE | O | n/a | n/a | 0 | 1 | n/a |
| 2.8003_0 | Biometric Subject Birth Date | Subfields: Repeating sets of information items | SUBJ_BIRTHDATE_0 | O | n/a | n/a | 0 | 5 | n/a |
| 2.8003_1 | Biometric Subject Birth Date | Birth Date | DOB | M↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | ANS |
| 2.8003_2 | Biometric Subject Birth Date | Date Validity | DATEVLD | O | 3 | 3 | 0 | 1 | A |
| 2.8003_3 | Biometric Subject Birth Date | Calendar Type | CALTYP | O | 1 | 1 | 0 | 1 | A |
| 2.8005 | Biometric Subject Death Date | | SUBJ_DEATHDATE | O | n/a | n/a | 0 | 1 | n/a |
| 2.8005_1 | Biometric Subject Death Date | Death Date | DOD | M↑ | Dependent on Encoding | Dependent on Encoding | 1 | 1 | ANS |
| 2.8005_2 | Biometric Subject Death Date | Date Validity | DATEVLD | O | 3 | 3 | 0 | 1 | A |
| 2.8005_3 | Biometric Subject Death Date | Calendar Type | CALTYP | O | 1 | 1 | 0 | 1 | A |
| 2.8007 | Biometric Subject Citizenship | | SUBJ_CITIZENSHIP | O | 3 | 3 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8008 | Biometric Subject Ethnic/Racial Characteristic | | SUBJ_RA
C | O | 1 | 2 | 0 | 3 | A |
| 2.8013 | Biometric Subject Blood Type | | SUBJ_BL
OOD | O | n/a | n/a | 0 | 1 | n/a |
| 2.8013_0 | Biometric Subject Blood Type | Subfields: Repeating sets of information items | SUBJ_BL
OOD_0 | O | n/a | n/a | 0 | 3 | n/a |
| 2.8013_1 | Biometric Subject Blood Type | Blood Type Code | BLTCD | M↑ | 4 | 5 | 1 | 1 | A |
| 2.8013_2 | Biometric Subject Blood Type | Blood Type Validity | BLTVLD | O | 3 | 3 | 0 | 1 | A |
| 2.8014 | Biometric Subject Vital Status | | SUBJ_VIT
AL_0 | O | n/a | n/a | 0 | 1 | n/a |
| 2.8014_0 | Biometric Subject Vital Status | Subfields: Repeating sets of information items | SUBJ_VIT
AL | O | n/a | n/a | 0 | 3 | n/a |
| 2.8014_1 | Biometric Subject Vital Status | Vital Status Validity | VSVLD | M↑ | 3 | 3 | 0 | 1 | A |
| 2.8014_2 | Biometric Subject Vital Status | Vital Status Code | VSCD | O | 1 | 1 | 1 | 1 | A |
| 2.8016 | Biometric Subject Marital Status | | SUBJ_MA
RITAL | O | 3 | 3 | 0 | 1 | A |
| 2.8019 | Collected Identification | | COL_IDE
NT | O | n/a | n/a | 0 | 1 | n/a |
| 2.8019_0 | Collected Identification | Subfields: Repeating sets of information items | COL_IDE
NT_0 | O | n/a | n/a | 0 | 100 | n/a |
| 2.8019_1 | Collected Identification | Collected Identification Type | CITYP | O | 2 | 6 | 0 | 4 | A |
| 2.8019_2 | Collected Identification | Collected Identification Identifier | CIID | O | 1 | 100 | 0 | 1 | U |
| 2.8019_3 | Collected Identification | Collected Identification Issuance Organization | CII | O | 1 | 100 | 0 | 1 | U |
| 2.8019_4 | Collected Identification | Collected Identification Issuance Date | CISSDT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8019_5 | Collected Identification | Collected Identification Expiration Date | CIEXPDT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8019_6 | Collected Identification | Collected Identification Issuance Office | CISSOFF | O | 1 | 100 | 0 | 1 | U |
| 2.8019_7 | Collected Identification | Collected Identification Comment | CICOM | O | 1 | 250 | 0 | 1 | U |
| 2.8021 | Biometric Subject Clearance | | SUBJ_CLE
AR | O | n/a | n/a | 0 | 1 | n/a |
| 2.8021_1 | Biometric Subject Clearance | Clearance Code | CLRCD | M↑ | 0 | 1 | 1 | 1 | A |
| 2.8021_2 | Biometric Subject Clearance | Clearance Validity | CLRVLD | O | 0 | 1 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--------------------------------------|--|------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8022 | Biometric Subject Compartments | | SUBJ_CO
MPART | O | n/a | n/a | 0 | 50 | n/a |
| 2.8022_1 | Biometric Subject Compartments | Compartment Description | CMPDES
C | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8022_2 | Biometric Subject Compartments | Compartments Validity | CMPVLD | O | 3 | 3 | 0 | 1 | A |
| 2.8023 | Biometric Subject Comment | | SUBJ_CO
M | O | 1 | 120 | 0 | 1 | U |
| 2.8024 | Biometric Subject Specialty | Biometric Subject US Person Indicator | US_IND | O | 1 | 1 | 0 | 1 | A |
| 2.8025 | Biometric Subject Derogatory Comment | | DEROG_
COM | O | 1 | 120 | 0 | 1 | U |
| 2.8026 | Biometric Subject Alternate Name | | SUBJ_AK
A | O | n/a | n/a | 0 | 1 | n/a |
| 2.8026_0 | Biometric Subject Alternate Name | Subfields: Repeating sets of information items | SUBJ_AK
A_0 | O | n/a | n/a | 0 | 10 | n/a |
| 2.8026_1 | Biometric Subject Alternate Name | Person Alternate Name Category Code | NAMCAT
CD | M↑ | 3 | 4 | 1 | 1 | A |
| 2.8026_2 | Biometric Subject Alternate Name | Name - One | NAM1 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8026_3 | Biometric Subject Alternate Name | Name - Two | NAM2 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8026_4 | Biometric Subject Alternate Name | Name - Three | NAM3 | O | 1 | 50 | 0 | 1 | U |
| 2.8026_5 | Biometric Subject Alternate Name | Name - Four | NAM4 | O | 1 | 50 | 0 | 1 | U |
| 2.8026_6 | Biometric Subject Alternate Name | Name - Five | NAM5 | O | 1 | 50 | 0 | 1 | U |
| 2.8026_7 | Biometric Subject Alternate Name | Name Validity | NAME_V
LD | O | 3 | 3 | 0 | 1 | A |
| 2.8026_8 | Biometric Subject Alternate Name | Transliteration Code | TRANSLIT
_CD | O | 4 | 6 | 0 | 1 | A |
| 2.8026_9 | Biometric Subject Alternate Name | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8028 | Employment | | EMPLOY | O | n/a | n/a | 0 | 1 | n/a |
| 2.8028_0 | Employment | Subfields: Repeating sets of information items | EMPLOY
_0 | O | n/a | n/a | 0 | 5 | n/a |
| 2.8028_1 | Employment | Employer Name | EMPNA
M | M↑ | 1 | 50 | 0 | 1 | U |
| 2.8028_2 | Employment | Employee Position Name | POSNAM | O | 1 | 50 | 0 | 1 | U |
| 2.8028_3 | Employment | Address Line 1 | ADD1 | O | 1 | 50 | 0 | 1 | U |
| 2.8028_4 | Employment | Address Line 2 | ADD2 | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|-------------------------------------|-------------------------|--------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8028_5 | Employment | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8028_6 | Employment | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8028_7 | Employment | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8028_8 | Employment | Postal Code | POSTAL | O | 1 | 50 | 0 | 1 | ANS |
| 2.8028_9 | Employment | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8028_10 | Employment | Phone Number | PHNUM | O | 1 | 50 | 0 | 1 | ANS |
| 2.8028_11 | Employment | Email Address | EMAIL | O | 1 | 254 | 0 | 1 | ANS |
| 2.8028_12 | Employment | Clearance Code | CLRCD | O | 3 | 3 | 0 | 1 | A |
| 2.8028_13 | Employment | Job Duties | DUTY | O | 1 | 126 | 0 | 1 | U |
| 2.8028_14 | Employment | Job Description | JOBDESC | O | 1 | 126 | 0 | 1 | U |
| 2.8028_15 | Employment | Supervisor Name | SUPV | O | 1 | 100 | 0 | 1 | U |
| 2.8028_16 | Employment | Start Date | STARTDATE | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8028_17 | Employment | Start Date | ENDDATE | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8028_18 | Employment | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8029 | Biometric Subject Contact Email | | SUBJ_EMAIL | O | 1 | 254 | 0 | 1 | ANS |
| 2.8031 | Biometric Subject Current Residence | | SUBJ_ADDRESS | O | n/a | n/a | 0 | 1 | n/a |
| 2.8031_1 | Biometric Subject Current Residence | Address Line 1 | ADD1 | O | 1 | 50 | 0 | 1 | U |
| 2.8031_2 | Biometric Subject Current Residence | Address Line 2 | ADD2 | O | 1 | 50 | 0 | 1 | U |
| 2.8031_3 | Biometric Subject Current Residence | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8031_4 | Biometric Subject Current Residence | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8031_5 | Biometric Subject Current Residence | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8031_6 | Biometric Subject Current Residence | Postal Code | POSTAL | O | 1 | 50 | 0 | 1 | ANS |
| 2.8031_7 | Biometric Subject Current Residence | Neighborhood / District | NEIG | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--------------------------------------|----------------------------------|-------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8031_8 | Biometric Subject Current Residence | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8031_9 | Biometric Subject Current Residence | Address Validity | ADDR_VLD | O | 3 | 3 | 0 | 1 | A |
| 2.8032 | Biometric Subject Contact Telephone | | SUBJ_PHONE | O | n/a | n/a | 0 | 1 | n/a |
| 2.8032_1 | Biometric Subject Contact Telephone | Telephone Category Code | PH_TYP | O | 2 | 2 | 0 | 1 | A |
| 2.8032_2 | Biometric Subject Contact Telephone | Phone Number | PHNUM | O | 1 | 50 | 0 | 1 | ANS |
| 2.8032_3 | Biometric Subject Contact Telephone | Phone Extension | PHEXT | O | 1 | 20 | 0 | 1 | N |
| 2.8033 | Biometric Subject Birth Location | | SUBJ_POB | O | n/a | n/a | 0 | 1 | n/a |
| 2.8033_1 | Biometric Subject Birth Location | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8033_2 | Biometric Subject Birth Location | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8033_3 | Biometric Subject Birth Location | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8033_4 | Biometric Subject Birth Location | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8033_5 | Biometric Subject Birth Location | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8034 | Biometric Subject Death Location | | SUBJ_POD | O | n/a | n/a | 0 | 1 | n/a |
| 2.8034_1 | Biometric Subject Death Location | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8034_2 | Biometric Subject Death Location | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8034_3 | Biometric Subject Death Location | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8034_4 | Biometric Subject Death Location | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8034_5 | Biometric Subject Death Location | Biometric Subject Death Location | COM | O | 0 | 126 | 0 | 1 | U |
| 2.8035 | Biometric Subject Height Measurement | | SUBJ_HEIGHT | O | n/a | n/a | 0 | 1 | n/a |
| 2.8035_1 | Biometric Subject Height Measurement | Height Value | HGT | O | 2 | 4 | 0 | 1 | NS |
| 2.8035_2 | Biometric Subject Height Measurement | Length Unit | LENUNIT | O | 1 | 4 | 0 | 1 | A |
| 2.8035_3 | Biometric Subject Height Measurement | Measurement Validity | MEASVLD | O | 3 | 3 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---|--|-------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8036 | Biometric Subject Weight Measurement | | SUBJ_WEIGHT | O | n/a | n/a | 1 | 1 | n/a |
| 2.8036_1 | Biometric Subject Weight Measurement | Weight Value | WGT | O | 1 | 3 | 0 | 1 | N |
| 2.8036_2 | Biometric Subject Weight Measurement | Mass Unit | MASSUNIT | M↑ | 2 | 2 | 1 | 1 | A |
| 2.8036_3 | Biometric Subject Weight Measurement | Measurement Validity | MEASVALID | M↑ | 3 | 3 | 1 | 1 | A |
| 2.8037 | Biometric Subject Eye Color | | SUBJ_EYE_0 | O | n/a | n/a | 0 | 1 | n/a |
| 2.8037_0 | Biometric Subject Eye Color | Subfields: Repeating sets of information items | SUBJ_EYE | O | n/a | n/a | 0 | 2 | n/a |
| 2.8037_1 | Biometric Subject Eye Color | Eye Position | EPOS | M↑ | 1 | 1 | 1 | 1 | N |
| 2.8037_2 | Biometric Subject Eye Color | | ECOL | M↑ | 3 | 3 | 1 | 1 | A |
| 2.8038 | Biometric Subject Group Membership | | GRPMBR | O | n/a | n/a | 0 | 1 | n/a |
| 2.8038_0 | Biometric Subject Group Membership | Subfields: Repeating sets of information items | GRPMBR_0 | O | n/a | n/a | 0 | 100 | n/a |
| 2.8038_1 | Biometric Subject Associated Individual | Associated Individual Gender | IASSOC_SEX | O | 1 | 1 | 0 | 1 | A |
| 2.8038_2 | Biometric Subject Associated Individual | Associated Individual Role | IASSOC_ROLE | M↑ | 1 | 1 | 1 | 1 | N |
| 2.8038_3 | Biometric Subject Associated Individual | Name - One | NAM1 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8038_4 | Biometric Subject Associated Individual | Name - Two | NAM2 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8038_5 | Biometric Subject Associated Individual | Name - Three | NAM3 | O | 1 | 50 | 0 | 1 | U |
| 2.8038_6 | Biometric Subject Associated Individual | Name - Four | NAM4 | O | 1 | 50 | 0 | 1 | U |
| 2.8038_7 | Biometric Subject Associated Individual | Name - Five | NAM5 | O | 1 | 50 | 0 | 1 | U |
| 2.8038_8 | Biometric Subject Associated Individual | Address Line 1 | ADD1 | O | 1 | 50 | 0 | 1 | U |
| 2.8038_9 | Biometric Subject Associated Individual | Address Line 2 | ADD2 | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 2.8038_10 | Biometric Subject Associated Individual | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8038_11 | Biometric Subject Associated Individual | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8038_12 | Biometric Subject Associated Individual | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8038_13 | Biometric Subject Associated Individual | Postal Code | POSTAL | O | 1 | 50 | 0 | 1 | ANS |
| 2.8038_14 | Biometric Subject Associated Individual | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8038_15 | Biometric Subject Associated Individual | Phone Number | PHNUM | O | 1 | 50 | 0 | 1 | ANS |
| 2.8038_16 | Biometric Subject Associated Individual | Birth Date | DOB | O | Dependent on Encoding | Dependent on Encoding | 0 | 1 | ANS |
| 2.8038_17 | Biometric Subject Associated Individual | Occupation | OCP | O | 1 | 50 | 0 | 1 | U |
| 2.8038_18 | Biometric Subject Associated Individual | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8039 | Biometric Subject Group Membership | Biometric Subject Group Membership | GRPMBR | O | n/a | n/a | 0 | 1 | n/a |
| 2.8039_0 | Biometric Subject Group Membership | Subfields: Repeating sets of information items | GRPMBR_0 | O | n/a | n/a | 0 | 100 | n/a |
| 2.8039_1 | Biometric Subject Group Membership | Group Name | GMNAM | M↑ | 1 | 100 | 1 | 1 | U |
| 2.8039_2 | Biometric Subject Group Membership | Group Type | GMTYP | M↑ | 3 | 5 | 1 | 1 | A |
| 2.8039_3 | Biometric Subject Group Membership | Group Member Role | GMRL | O | 1 | 100 | 0 | 1 | U |
| 2.8039_4 | Biometric Subject Group Membership | Address Line 1 | ADD1 | O | 1 | 50 | 0 | 1 | U |
| 2.8039_5 | Biometric Subject Group Membership | Address Line 2 | ADD2 | O | 1 | 50 | 0 | 1 | U |
| 2.8039_6 | Biometric Subject Group Membership | City | CITY | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|------------------------------------|--|-------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8039_7 | Biometric Subject Group Membership | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8039_8 | Biometric Subject Group Membership | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8039_9 | Biometric Subject Group Membership | Postal Code | POSTAL | O | 1 | 50 | 0 | 1 | ANS |
| 2.8039_10 | Biometric Subject Group Membership | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8039_11 | Biometric Subject Group Membership | Phone Number | PHNUM | O | 1 | 50 | 0 | 1 | ANS |
| 2.8039_12 | Biometric Subject Group Membership | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.804 | Biometric Subject Name | | SUBJ_NAME | O | n/a | n/a | 0 | 1 | n/a |
| 2.8040_1 | Biometric Subject Name | Name - One | NAM1 | O | 1 | 50 | 0 | 1 | U |
| 2.8040_2 | Biometric Subject Name | Name - Two | NAM2 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8040_3 | Biometric Subject Name | Name - Three | NAM3 | O | 1 | 50 | 0 | 1 | U |
| 2.8040_4 | Biometric Subject Name | Name - Four | NAM4 | O | 1 | 50 | 0 | 1 | U |
| 2.8040_5 | Biometric Subject Name | Name - Five | NAM5 | O | 1 | 50 | 0 | 1 | U |
| 2.8040_6 | Biometric Subject Name | Name Validity | NAME_VALID | O | 3 | 3 | 0 | 1 | A |
| 2.8040_7 | Biometric Subject Name | Transliteration Code | TRANSLIT_CD | O | 4 | 6 | 0 | 1 | A |
| 2.8102 | Encounter Mission Type | | ENCTR_MSN | O | 2 | 5 | 0 | 1 | A |
| 2.8103 | Collection Reason | | COL_RSN | O | 1 | 300 | 0 | 1 | U |
| 2.8106 | Triggering Event | | EVENT | O | n/a | n/a | 0 | Unlimited | n/a |
| 2.8106_0 | Triggering Event | Subfields: Repeating sets of information items | EVENT_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8106_1 | Triggering Event | Triggering Event Identifier | EVENT_ID | O | 1 | 50 | 0 | 1 | ANS |
| 2.8106_2 | Triggering Event | Address Line 1 | ADD1 | O | 1 | 50 | 0 | 1 | U |
| 2.8106_3 | Triggering Event | Address Line 2 | ADD2 | O | 1 | 50 | 0 | 1 | U |
| 2.8106_4 | Triggering Event | City | CITY | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---|---|-------------------|-------|----------------------|----------------------|-----------|-----------|------------|
| 2.8106_6 | Triggering Event | Country Code | CTRY | O | 3 | 3 | 0 | 1 | A |
| 2.8106_7 | Triggering Event | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8106_8 | Triggering Event | Event Description | EVENT_D
ESC | O | 1 | 255 | 0 | 1 | U |
| 2.8106_9 | Triggering Event | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8106_10 | Triggering Event | Event Status | EVENT-
STATUS | O | 1 | 50 | 0 | 1 | AN |
| 2.8106_11 | Triggering Event | Event Date | EVENT_D
ATE | O | Encoding
Specific | Encoding
Specific | 0 | 1 | ANS |
| 2.8107 | Biometric Subject Privacy Act Indicator | | PRI_ACT | O | 1 | 1 | 0 | 1 | A |
| 2.8108 | Employment | Encounter Comment | ENCTR_C
OM | O | 1 | 1000 | 0 | 1 | U |
| 2.8109 | Repository Candidate List | | REPO_CA
N | O | n/a | n/a | 0 | 1 | n/a |
| 2.8109_0 | Repository Candidate List | Subfields: Repeating sets of
information items | REPO_CA
N_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8109_1 | Repository Candidate List | Name of Designated Repository | NDR | O | 1 | 3 | 0 | 1 | N |
| 2.8109_2 | Repository Candidate List | Repository Candidate Identifier
Category Code | CAN_ID_
CAT_CD | O | 3 | 3 | 0 | 1 | A |
| 2.8109_3 | Repository Candidate List | Repository Candidate Identifier | CAN_ID | O | 1 | 100 | 0 | 1 | U |
| 2.8109_4 | Repository Candidate List | Repository Candidate Name | CAN_NA
M | O | 1 | 100 | 0 | 1 | U |
| 2.811 | Iris Image Omitted Reason | | IOMITTE
D | O | 1 | 1 | 0 | 1 | A |
| 2.8114 | Collection Location | | COLL_BL
O | O | n/a | n/a | 0 | 1 | n/a |
| 2.8114_0 | Collection Location | Subfields: Repeating sets of
information items | COLL_BL
O_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8114_01 | Collection Location | Universal Time Entry | UTE | O | 15 | 15 | 0 | 1 | ANS |
| 2.8114_02 | Collection Location | Latitude Degree Value | LTD | M↑ | 1 | 9 | 1 | 1 | NS |
| 2.8114_03 | Collection Location | Latitude Minute Value | LTM | O | 1 | 8 | 0 | 1 | NS |
| 2.8114_04 | Collection Location | Latitude Second Value | LTS | O | 1 | 8 | 0 | 1 | N |
| 2.8114_05 | Collection Location | Longitude Degree Value | LGD | M↑ | 1 | 10 | 1 | 1 | NS |
| 2.8114_06 | Collection Location | Longitude Minute Value | LGM | O | 1 | 8 | 0 | 1 | NS |
| 2.8114_07 | Collection Location | Longitude Second Value | LGS | O | 1 | 8 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|-----------------------|--|------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8114_08 | Collection Location | Elevation | ELE | O | 1 | 8 | 0 | 1 | NS |
| 2.8114_09 | Collection Location | Geodetic Datum Code | GDC | O | 3 | 6 | 0 | 1 | AN |
| 2.8114_10 | Collection Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | M↑ | 2 | 3 | 1 | 1 | AN |
| 2.8114_11 | Collection Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | M↑ | 1 | 6 | 1 | 1 | N |
| 2.8114_12 | Collection Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | M↑ | 1 | 8 | 1 | 1 | N |
| 2.8114_13 | Collection Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 2.8114_14 | Collection Location | Geographic Coordinate Other System Identifier | OSI | M↑ | 1 | 10 | 1 | 1 | U |
| 2.8114_15 | Collection Location | Geographic Coordinate Other System Value | OCV | M↑ | 1 | 126 | 1 | 1 | U |
| 2.8114_16 | Collection Location | City | CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8114_17 | Collection Location | State / Province | STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8114_18 | Collection Location | Country Code | CTRY | M↑ | 3 | 3 | 1 | 1 | A |
| 2.8114_19 | Collection Location | Village | VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8114_20 | Collection Location | Record Category Code Referenced | REC | O | 1 | 1 | 0 | 1 | N |
| 2.8115 | Operational Personnel | | OPER | O | n/a | n/a | 0 | 1 | n/a |
| 2.8115_0 | Operational Personnel | Subfields: Repeating sets of information items | OPER_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8115_1 | Operational Personnel | Operational Personnel Unit/Organization | OPORG | O | 1 | 50 | 0 | 1 | U |
| 2.8115_2 | Operational Personnel | Operational Personnel Role | OPRL | M↑ | 1 | 50 | 1 | 1 | A |
| 2.8115_3 | Operational Personnel | Rank Grade Code | RANK | O | 1 | 20 | 0 | 1 | ANS |
| 2.8115_4 | Operational Personnel | US Person Indicator | USIND | O | 1 | 1 | 0 | 1 | A |
| 2.8115_5 | Operational Personnel | Operational Personnel Identifier Type | OPIDCAT CD | M↑ | 3 | 7 | 1 | 1 | A |
| 2.8115_6 | Operational Personnel | Operational Personnel Identifier | OPID | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8115_7 | Operational Personnel | Name - One | NAM1 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8115_8 | Operational Personnel | Name - Two | NAM2 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8115_9 | Operational Personnel | Name - Three | NAM3 | M↑ | 1 | 50 | 1 | 1 | U |
| 2.8115_10 | Operational Personnel | Name - Four | NAM4 | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---|--|-------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8115_11 | Operational Personnel | Name - Five | NAM5 | O | 1 | 50 | 0 | 1 | U |
| 2.8115_12 | Operational Personnel | Phone Number | PHNUM | O | 1 | 50 | 0 | 1 | ANS |
| 2.8115_13 | Operational Personnel | Email Address | EMAIL | O | 1 | 254 | 0 | 1 | ANS |
| 2.8116 | Transportation | | TRANSPORT | O | 1 | 50 | 0 | 1 | n/a |
| 2.8116_1 | Transportation | Transport Type | TRANSPORT_TYP | O | 3 | 6 | 0 | 1 | A |
| 2.8116_2 | Transportation | Transport Identifier Category Code | TRANSPORT_IDCATCD | O | 2 | 20 | 0 | 1 | A |
| 2.8116_3 | Transportation | Transport Identifier | TRANSPORT_ID | O | 1 | 20 | 0 | 1 | U |
| 2.8116_4 | Transportation | Transport Make | TRANSPORT_MAK | O | 1 | 50 | 0 | 1 | U |
| 2.8116_5 | Transportation | Transport Model | TRANSPORT_MOD | O | 1 | 50 | 0 | 1 | U |
| 2.8116_6 | Transportation | Transport Model Year | TRANSPORT_MOD_YR | O | 4 | 4 | 0 | 1 | N |
| 2.8116_7 | Transportation | Transport Color | TRANSPORT_COL | O | 1 | 50 | 0 | 1 | AN |
| 2.8116_8 | Transportation | Comment | COM | O | 1 | 126 | 0 | 1 | U |
| 2.8117 | Facial Image Omitted Reason | | FOMITTED | O | 2 | 2 | 0 | 1 | A |
| 2.8118 | Collection Equipment Make/Model/Serial Number | | COLL_MS_0 | O | n/a | n/a | 0 | 1 | n/a |
| 2.8118_0 | Collection Equipment Make/Model/Serial Number | Subfields: Repeating sets of information items | COLL_MS | O | n/a | n/a | 0 | * | n/a |
| 2.8118_1 | Collection Equipment Make/Model/Serial Number | Make | MAK | O | 1 | 50 | 0 | 1 | U |
| 2.8118_2 | Collection Equipment Make/Model/Serial Number | Model | MOD | O | 1 | 50 | 0 | 1 | U |
| 2.8118_3 | Collection Equipment Make/Model/Serial Number | Serial Number | SER | O | 1 | 50 | 0 | 1 | U |
| 2.8118_4 | Collection Equipment Make/Model/Serial Number | Record Category Code Referenced | REC | O | 1 | 1 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---|--|---------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8118_5 | Collection Equipment Make/Model/Serial Number | Capture Location | CAPT_LO C | O | 1 | 50 | 0 | 1 | U |
| 2.8118_6 | Collection Equipment Make/Model/Serial Number | Capture UTC | CAPT_UT C | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8118_7 | Collection Equipment Make/Model/Serial Number | Capture Date | CAPT_DA TE | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8118_8 | Collection Equipment Make/Model/Serial Number | Device Identification | CAPT_ID | O | 1 | 50 | 0 | 1 | U |
| 2.8118_9 | Collection Equipment Make/Model/Serial Number | Capture Organization | CAPT_OR G | O | 1 | 50 | 0 | 1 | U |
| 2.8118_10 | Collection Equipment Make/Model/Serial Number | Capture Resolution | CAPT_RE SOL | O | 1 | 25 | 0 | 1 | U |
| 2.8118_11 | Collection Equipment Make/Model/Serial Number | Capture Vertical Pixel Density Value | CAPT_PIX EL | O | 1 | 25 | 0 | 1 | N |
| 2.8118_12 | Collection Equipment Make/Model/Serial Number | Capture Device Monitoring Mode | CAPT_M ONITOR | O | 1 | 25 | 0 | 1 | U |
| 2.8203 | Template Extraction Algorithm | | TEA | O | n/a | n/a | 0 | 1 | n/a |
| 2.8203_1 | Template Extraction Algorithm Name | Template Extraction Algorithm Version | TEA_NA ME | M↑ | 1 | 100 | 1 | 1 | AN |
| 2.8203_2 | Template Extraction Algorithm | Template Extraction Algorithm Version | TEA_VER | O | 1 | 10 | 0 | 1 | U |
| 2.8206 | Additional Response | | ARSP | O | n/a | n/a | 0 | 1 | n/a |
| 2.8206_0 | Additional Response | Subfields: Repeating sets of information items | ARSP_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8206_1 | Additional Response | Name of Designated Repository | NDR | O | 1 | 3 | 0 | 1 | N |
| 2.8206_2 | Additional Response | Additional Response Result Code | RSLTCD | O | 1 | 1 | 0 | 1 | A |
| 2.8206_3 | Additional Response | Additional Response Identifier Category Code | ARIDCAT CD | O | 3 | 3 | 0 | 1 | A |
| 2.8206_4 | Additional Response | Additional Response Identifier | ARID | O | 1 | 50 | 0 | 1 | ANS |
| 2.8206_5 | Additional Response | Additional Response Rap Sheet | ERS | O | 1 | 200,000 | 0 | 1 | U |
| 2.8207 | Request Secondary Search | | SCND_SR CH | O | n/a | n/a | 0 | 1 | n/a |
| 2.8207_1 | Request Secondary Search | Name of Designated Repository | NDR | O | 1 | 3 | 0 | 1 | N |
| 2.8207_2 | Request Secondary Search | Request Secondary Search Transaction Type | TOT | O | 3 | 100 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|---------------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8207_3 | Request Secondary Search | Secondary Search Retention Indicator | RET | O | 1 | 1 | 0 | 1 | A |
| 2.8399 | Caveat | | CAV | O | n/a | n/a | 0 | 1 | n/a |
| 2.8399_0 | Caveat | Subfields: Repeating sets of information items | CAV_0 | O | n/a | n/a | 0 | 4 | n/a |
| 2.8399_1 | Caveat | Caveat Originating Agency Country Code | CAV_CNT
RY_CD | M↑ | 3 | 3 | 0 | 1 | A |
| 2.8399_2 | Caveat | Caveat Originating Agency Name | CAV_ORI
_NAME | M↑ | 1 | 100 | 0 | 1 | U |
| 2.8399_3 | Caveat | Caveat Originating Agency Identifier | CAV_ORI | M↑ | 9 | 9 | 0 | 1 | AN |
| 2.8399_4 | Caveat | Caveat Date | CAV_DT | M↑ | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8399_5 | Caveat | Caveat Category Code | CAV_CAT
_CD | M↑ | 1 | 10 | 0 | 1 | A |
| 2.8399_6 | Caveat | Caveat Text | CAV_TXT | M↑ | 1 | 30000 | 0 | 1 | U |
| 2.8399_7 | Caveat | Caveat Releasability | CAV_REL | M↑ | 1 | 30000 | 0 | 1 | ANS |
| 2.8399_8 | Caveat | Caveat Originating Country POC Information | CAV_CNT
_POC | M↑ | 1 | 30000 | 0 | 1 | ANS |
| 2.8399_9 | Caveat | Caveat Adjudicator POC Information | CAV_ADJ
_POC | M↑ | 1 | 30000 | 0 | 1 | ANS |
| 2.8399_10 | Caveat | Caveat Source Reliability | CAV_SRC | M↑ | 1 | 1 | 0 | 1 | A |
| 2.8399_11 | Caveat | Caveat Content Reliability | CAV_CO
N | M↑ | 1 | 1 | 0 | 1 | A |
| 2.8502 | Access Location Badge Color | | BADGE_C
LR | O | n/a | n/a | 0 | 1 | n/a |
| 2.8502_1 | Access Location Badge Color | Badge Color Code | BADGE_C
LR_CD | O | 3 | 3 | 0 | 1 | A |
| 2.8502_2 | Access Location Badge Color | Badge Clearance Code | BADGE_C
LR_AUTH
_CD | O | 6 | 6 | 0 | 1 | AS |
| 2.8505 | Screening Document Requirement Indicator | | LEP | O | 1 | 1 | 0 | 1 | A |
| 2.8507 | Project Name | | PROJ | O | 2 | 30 | 0 | 1 | U |
| 2.8508 | Contract | | CONTRA
CT | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------|--|------------------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8508_0 | Contract | Subfields: Repeating sets of information items | CONTRACT_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8508_1 | Contract | Contract Number | CNTRACT_NUM | O | 1 | 58 | 0 | 1 | U |
| 2.8508_2 | Contract | Contract Expiration Date | CNTRACT_EXPDT | O | Encoding Specific | Encoding Specific | 0 | 1 | N |
| 2.8509 | Access Location Badge | | BADGE | O | n/a | n/a | 0 | 1 | n/a |
| 2.8509_0 | Access Location Badge | Subfields: Repeating sets of information items | BADGE_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8509_1 | Access Location Badge | Access Location Badge Number | BADGE_NUM | O | 1 | 100 | 0 | 1 | U |
| 2.8509_2 | Access Location Badge | Access Location Badge Color Code | BADGE_CLR_CD | O | 3 | 3 | 0 | 1 | A |
| 2.8509_3 | Access Location Badge | Access Location Badge Status Code | BADGE_STAT_CD | O | 1 | 1 | 0 | 1 | A |
| 2.8509_4 | Access Location Badge | Access Location Badge Issue Date | BADGE_ISSDT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8509_5 | Access Location Badge | Access Location Badge Expiration Date | BADGE_EXPDT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8509_6 | Access Location Badge | Access Location Badge Issuance Organization Name | BADGE_ISSORG | O | 1 | 100 | 0 | 1 | U |
| 2.851 | Access Location | | ACC_LOC_APT_PERM | O | n/a | n/a | 0 | 1 | n/a |
| 2.8510_0 | Access Location | Subfields: Repeating sets of information items | ACC_LOC_APT_PERM_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8510_1 | Access Location | Access Location Airport Installation Category Code | ACC_LOC_APT_PERM_APT_LOC_TYP | O | 3 | 7 | 0 | 1 | AN |
| 2.8510_2 | Access Location | Force Protection Condition Code | ACC_LOC_APT_PERM_FP_CD | O | 11 | 13 | 0 | 1 | AS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|--------------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8510_3 | Access Location | Authority Approval Status Code | ACC_LOC_APT_PERM_AUTH_CD | O | 6 | 6 | 0 | 1 | AS |
| 2.8511 | Access Location Required Month | | ACC_LOC_MONTH | O | n/a | n/a | 0 | 1 | n/a |
| 2.8511_0 | Access Location Required Month | Subfields: Repeating sets of information items | ACC_LOC_MONTH_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8511_1 | Access Location Required Month | Month Number | ACC_LOC_MONTH_VAL | O | 2 | 2 | 0 | 1 | N |
| 2.8511_2 | Access Location Required Month | Authority Approval Status Code | ACC_LOC_MONTH_AUTH_CD | O | 6 | 6 | 0 | 1 | AS |
| 2.8512 | Access Location Required Day of the Week | | ACC_LOC_WKDAY | O | n/a | n/a | 0 | 1 | n/a |
| 2.8512_1 | Access Location Required Day of the Week | Weekday Number | ACC_LOC_WKDAY_NUM | O | 1 | 1 | 0 | 1 | N |
| 2.8512_2 | Access Location Required Day of the Week | Authority Approval Status Code | ACC_LOC_WKDAY_AUTH_CD | O | 6 | 6 | 0 | 1 | AS |
| 2.8513 | Access Location Badge Replacement | | BADGE_RPL | O | n/a | n/a | 0 | 1 | n/a |
| 2.8513_1 | Access Location Badge Replacement | Access Location Badge Replacement Reason Code | BADGE_RPL_REASON_CD | O | 1 | 1 | 0 | 1 | A |
| 2.8513_2 | Access Location Badge Replacement | Access Location Replaced Badge Number | BADGE_RPL_BADGE_NUM | O | 1 | 100 | 0 | 1 | U |
| 2.8514 | Access Location Privilege | | ACC_LOC_PRV | O | n/a | n/a | 0 | 1 | n/a |
| 2.8514_0 | Access Location Privilege | Subfields: Repeating sets of information items | ACC_LOC_PRV_0 | O | n/a | n/a | 0 | * | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---------------------------|--|---------------------------|-------|-----------|-----------|-----------|-----------|------------|
| 2.8514_1 | Access Location Privilege | Access Location Privilege Category Code | ACC_LOC_PRV_TYP | O | 1 | 20 | 0 | 1 | A |
| 2.8514_2 | Access Location Privilege | Access Location Privilege Value | ACC_LOC_PRV_VAL | O | 1 | 50 | 0 | 1 | U |
| 2.8515 | Access Location | | ACC_LOC | O | n/a | n/a | 0 | 1 | n/a |
| 2.8515_0 | Access Location | Subfields: Repeating sets of information items | ACC_LOC_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8515_1 | Access Location | Location Name | ACC_LOC | O | 1 | 250 | 0 | 1 | U |
| 2.8515_2 | Access Location | Country Code | ACC_LOC_CNTRY_CD | O | 3 | 3 | 0 | 1 | A |
| 2.8515_3 | Access Location | State / Province | ACC_LOC_STATE | O | 1 | 50 | 0 | 1 | U |
| 2.8515_4 | Access Location | City | ACC_LOC_CITY | O | 1 | 50 | 0 | 1 | U |
| 2.8515_5 | Access Location | Village | ACC_LOC_VLG | O | 1 | 50 | 0 | 1 | U |
| 2.8515_6 | Access Location | Latitude Degree | ACC_LOC_GEO_CORD_LAT_DEG | M↑ | 1 | 9 | 1 | 1 | NS |
| 2.8515_7 | Access Location | Latitude Minute | ACC_LOC_GEO_CORD_LAT_MIN | O | 1 | 8 | 0 | 1 | NS |
| 2.8515_8 | Access Location | Latitude Second | ACC_LOC_GEO_CORD_LAT_SEC | O | 1 | 8 | 0 | 1 | NS |
| 2.8515_9 | Access Location | Longitude Degree | ACC_LOC_GEO_CORD_LONG_DEG | M↑ | 1 | 10 | 1 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|-------------------------------------|--|---------------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8515_10 | Access Location | Longitude Minute | ACC_LOC_GEO_CORD_LONG_MIN | O | 1 | 8 | 0 | 1 | NS |
| 2.8515_11 | Access Location | Longitude Second | ACC_LOC_GEO_CORD_LONG_SEC | O | 1 | 8 | 0 | 1 | NS |
| 2.8515_12 | Access Location | Location Description | ACC_LOC_DESC | O | 1 | 255 | 0 | 1 | U |
| 2.8516 | Access Location Expiration | | ACC_LOC_EXP | O | n/a | n/a | 0 | 1 | n/a |
| 2.8516_0 | Access Location Expiration | Subfields: Repeating sets of information items | ACC_LOC_EXP_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8516_1 | Access Location Expiration | Access Location Expiration Date | ACC_LOC_EXPDT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8516_2 | Access Location Expiration | Authority Approval Status Code | ACC_LOC_EXP_AUTH_CD | O | 6 | 6 | 0 | 1 | AS |
| 2.8517 | Access Location Facility Permission | | ACC_LOC_PAC_PERM | O | n/a | n/a | 0 | 1 | n/a |
| 2.8517_0 | Access Location Facility Permission | Subfields: Repeating sets of information items | ACC_LOC_PAC_PERM_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8517_1 | Access Location Facility Permission | Access Location Facility Category Code | ACC_LOC_PAC_PERM_FAC_TYP | O | 1 | 20 | 0 | 1 | A |
| 2.8517_2 | Access Location Facility Permission | Force Protection Condition Code | ACC_LOC_PAC_PERM_FP_CD | O | 11 | 13 | 0 | 1 | AS |
| 2.8517_3 | Access Location Facility Permission | Authority Approval Status Code | ACC_LOC_PAC_PERM_AUTH_CD | O | 6 | 6 | 0 | 1 | AS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------------|--|---------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8518 | Access Application Number | | ACC_APP_NUM | O | 16 | 16 | 0 | 1 | AN |
| 2.8548 | Biometric Subject Specialty | | SUBJ_SPE_C | O | n/a | n/a | 0 | 1 | n/a |
| 2.8548_0 | Biometric Subject Specialty | Subfields: Repeating sets of information items | SUBJ_SPE_C_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8548_1 | Biometric Subject Specialty | Biometric Subject Specialty Value | SUBJ_SPE_C_VAL | O | 1 | 100 | 0 | 1 | U |
| 2.8548_2 | Biometric Subject Specialty | Biometric Subject Specialty Proficiency | SUBJ_SPE_C_PRO | O | 1 | 1 | 0 | 1 | N |
| 2.8548_3 | Biometric Subject Specialty | Biometric Subject Specialty Validity | SUBJ_SPE_C_VALID | O | 3 | 3 | 0 | 1 | A |
| 2.8549 | Response Maximum Count | | RESP_CN_T | M | 1 | Unlimited | 0 | 1 | N |
| 2.8600 | Reference System Identifier | | ENTITY_I_D_0 | M | n/a | n/a | 1 | * | U |
| 2.8600_0 | Reference System Identifier | Subfields: Repeating sets of information items | ENTITY_I_D | O | n/a | n/a | 0 | * | n/a |
| 2.8600_1 | Reference System Identifier | Identifier | ENTITY_NO | O | 1 | 50 | 0 | 1 | U |
| 2.8600_2 | Reference System Identifier | Jurisdiction | ENTITY_JURIS | O | 1 | 50 | 0 | 1 | U |
| 2.8600_3 | Reference System Identifier | Category | ENTITY_CATEGORY | O | 1 | 50 | 0 | 1 | U |
| 2.8600_4 | Reference System Identifier | Description | ENTITY_DESC | O | 1 | 50 | 0 | 1 | U |
| 2.8600_5 | Reference System Identifier | Effective Date | ENTITY_EFFECT | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8600_6 | Reference System Identifier | Expiration Date | ENTITY_EXP | O | Encoding Specific | Encoding Specific | 0 | 1 | ANS |
| 2.8600_7 | Reference System Identifier | Source | ENTITY_SOURCE | O | 1 | 50 | 0 | 1 | U |
| 2.8600_8 | Reference System Identifier | Status | ENTITY_STATUS | O | 1 | 50 | 0 | 1 | U |
| 2.8600_9 | Reference System Identifier | Augmentation Point | ENTITY_AUGMENTATION | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------|--|-------------------|-------|-------------------|-------------------|-----------|-----------|------------|
| 2.8601 | Response Maximum Count | | RESP_CN
T | O | 1 | 50 | 0 | 1 | N |
| 2.8602 | Enhanced Status Message | | EMSU | M | n/a | n/a | 0 | 1 | U |
| 2.8602_0 | Enhanced Status Message | Subfields: Repeating sets of information items | EMSU_0 | O | n/a | n/a | 0 | * | n/a |
| 2.8602_1 | Enhanced Status Message | Comment | EMSU_1 | O | 1 | 255 | 0 | 1 | U |
| 2.8602_2 | Enhanced Status Message | Date | EMSU_2 | O | Encoding Specific | Encoding Specific | 0 | 1 | U |
| 2.8602_3 | Enhanced Status Message | Designator | EMSU_3 | O | 1 | 255 | 0 | 1 | U |
| 2.8602_4 | Enhanced Status Message | Description | EMSU_4 | O | 1 | 255 | 0 | 1 | U |
| 2.8602_5 | Enhanced Status Message | Issuer Identification | EMSU_5 | O | 1 | 50 | 0 | 1 | U |
| 2.8602_6 | Enhanced Status Message | Issuer | EMSU_6 | O | 1 | 50 | 0 | 1 | U |
| 2.8602_7 | Enhanced Status Message | Augmentation Point | EMSU_7 | O | 1 | 50 | 0 | 1 | U |
| 2.8603 | Primary Language | | PRIM_LA
NG | O | n/a | n/a | 0 | 1 | U |
| 2.8603_1 | Primary Language | Primary Language Code | PRIM_LA
NG_1 | O | 3 | 3 | 0 | 1 | U |
| 2.8603_2 | Primary Language | Primary Language Description | PRIM_LA
NG_2 | O | 1 | 50 | 0 | 1 | U |
| 2.8603_3 | Primary Language | Primary Language Dialect | PRIM_LA
NG_3 | O | 1 | 50 | 0 | 1 | U |
| 2.8603_4 | Primary Language | Primary Language Subject Reads | PRIM_LA
NG_4 | O | 1 | 1 | 0 | 1 | N |
| 2.8603_5 | Primary Language | Primary Language Subject Speaks | PRIM_LA
NG_5 | O | 1 | 1 | 0 | 1 | N |
| 2.8603_6 | Primary Language | Primary Language Subject Writes | PRIM_LA
NG_6 | O | 1 | 1 | 0 | 1 | N |
| 2.8604 | Secondary Language | | SECOND_
LANG_0 | O | n/a | n/a | 0 | 1 | U |
| 2.8604_0 | Secondary Language | Subfields: Repeating sets of information items | SECOND_
LANG | O | n/a | n/a | 0 | * | n/a |
| 2.8604_1 | Secondary Language | Secondary Language Code | SECOND_
LANG_1 | O | 3 | 3 | 0 | 1 | U |
| 2.8604_2 | Secondary Language | Secondary Language Description | SECOND_
LANG_2 | O | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|---|---------------|-------|--------------|--------------|-----------|-----------|------------|
| 2.8604_3 | Secondary Language | Secondary Language Dialect | SECOND_LANG_3 | O | 1 | 50 | 0 | * | U |
| 2.8604_4 | Secondary Language | Secondary Language Subject Reads | SECOND_LANG_4 | O | 1 | 1 | 0 | 1 | N |
| 2.8604_5 | Secondary Language | Secondary Language Subject Speaks | SECOND_LANG_5 | O | 1 | 1 | 0 | 1 | N |
| 2.8604_6 | Secondary Language | Secondary Language Subject Writes | SECOND_LANG_6 | O | 1 | 1 | 0 | 1 | N |
| 2.8605 | Speaker Identification Engine Response | | ENG_RES_P | O | n/a | n/a | 0 | 1 | U |
| 2.8605_1 | Speaker Identification Engine Response | Voice Engine Software Version | ENG_RES_P_1 | O | 1 | 50 | 0 | 1 | U |
| 2.8605_2 | Speaker Identification Engine Response | Voice Engine Software Name | ENG_RES_P_2 | O | 1 | 50 | 0 | 1 | U |
| 2.8605_3 | Speaker Identification Engine Response | Voice Engine Vendor | ENG_RES_P_3 | O | 1 | 50 | 0 | 1 | U |
| 2.8605_4 | Speaker Identification Engine Response | Detected Speaker Number | ENG_RES_P_4 | O | 1 | 50 | 0 | 1 | U |
| 2.8605_5 | Speaker Identification Engine Response | Voice Engine Rank | ENG_RES_P_5 | O | 1 | 50 | 0 | 1 | N |
| 2.8605_6 | Speaker Identification Engine Response | Match Level | ENG_RES_P_6 | O | 1 | 50 | 0 | 1 | U |
| 9.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 9.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 9.003 | Impression Type | | IMP | M | 1 | 2 | 1 | 1 | N |
| 9.004 | Minutia Format | | FMT | M | 1 | 1 | 1 | 1 | A |
| 9.013 | AFIS Feature Vector | | AFV | O | 2048 | 2048 | 0 | 1 | B |
| 9.014 | Finger Number | | FGN | M | 2 | 2 | 1 | 1 | N |
| 9.015 | Number of Minutiae | | NMN | M | 2 | 3 | 1 | 1 | N |
| 9.016 | Fingerprint Characterization Process | | FCP | C | n/a | n/a | 1 | 1 | n/a |
| 9.016_1 | Fingerprint Characterization Process | Fingerprint Characterization Equipment | VEN | M↑ | 3 | 12 | 1 | 1 | A |
| 9.016_2 | Fingerprint Characterization Process | Fingerprint Characterization Version Identifier | VID | M↑ | 2 | 2 | 1 | 1 | AN |
| 9.016_3 | Fingerprint Characterization Process | Fingerprint Characterization Method | MET | M↑ | 3 | 3 | 1 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|---------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.017 | AFIS/FBI Pattern Classification | | APC | O | n/a | n/a | 1 | 1 | n/a |
| 9.017_1 | AFIS/FBI Pattern Classification | Pattern Classification Code | APAT | M↑ | 2 | 2 | 1 | 1 | A |
| 9.017_2 | AFIS/FBI Pattern Classification | First Subpattern Ridge Count | RCN1 | C | 1 | 2 | 0 | 1 | N |
| 9.017_3 | AFIS/FBI Pattern Classification | Second Subpattern Ridge Count | RCN2 | C | 1 | 2 | 0 | 1 | N |
| 9.018 | Region of Value Polygon | | ROV | O | n/a | n/a | 0 | 1 | n/a |
| 9.018_1 | Region of Value Polygon | Vertex | XYM | M↑ | 8 | 8 | 1 | 1 | N |
| 9.019 | Coordinate Offsets | | COF | O | 8 | 8 | 0 | 1 | n/a |
| 9.019_1 | Coordinate Offsets | Offset to Upper Left Corner Subimage | XYP | M↑ | 8 | 8 | 1 | 1 | N |
| 9.019_2 | Coordinate Offsets | Center of Rotation in Subimage | XYP | C | 8 | 8 | 1 | 1 | N |
| 9.019_3 | Coordinate Offsets | Rotation Angle Clock Wise Degrees | THET | C | 8 | 8 | 0 | 1 | N |
| 9.019_4 | Coordinate Offsets | Rotation Center in Rotated Subimage | XYP | C | 8 | 8 | 1 | 1 | N |
| 9.019_5 | Coordinate Offsets | Offset to Upper Left Corner Final Subimage | XYP | C | 8 | 8 | 1 | 1 | N |
| 9.02 | Orientation Uncertainty | | ORN | M | 1 | 3 | 1 | 1 | N |
| 9.021 | Core Attributes | | CRA | O | n/a | n/a | 0 | 2 | n/a |
| 9.021_1 | Core Attributes | Core Location | XYM | C | 8 | 8 | 1 | 1 | N |
| 9.021_2 | Core Attributes | Core Direction in Degrees | DID | C | 3 | 3 | 1 | 1 | N |
| 9.021_3 | Core Attributes | Core Position Uncertainty | PUM | C | 4 | 4 | 1 | 1 | N |
| 9.022 | Delta Attributes | | DLA | O | n/a | n/a | 0 | 2 | n/a |
| 9.022_1 | Delta Attributes | Delta Location | XYM | C | 8 | 8 | 1 | 1 | N |
| 9.022_2 | Delta Attributes | Upward Flow Direction | DIDU | C | 3 | 3 | 1 | 1 | N |
| 9.022_3 | Delta Attributes | Leftward Flow Direction | DIDL | C | 3 | 3 | 1 | 1 | N |
| 9.022_4 | Delta Attributes | Rightward Flow Direction | DIDR | C | 3 | 3 | 1 | 1 | N |
| 9.022_5 | Delta Attributes | Delta Position Uncertainty | PUM | C | 4 | 4 | 1 | 1 | N |
| 9.023 | Minutiae and Ridge Count Data | | MAT | M | n/a | n/a | 1 | 254 | n/a |
| 9.023_1 | Minutiae and Ridge Count Data | Minutiae Index Number | MDX | M | 3 | 3 | 1 | 1 | N |
| 9.023_2 | Minutiae and Ridge Count Data | Location Direction | XYT | M | 11 | 11 | 1 | 1 | N |
| 9.023_3 | Minutiae and Ridge Count Data | Quality Measure | QMS | O | 2 | 2 | 1 | 1 | N |
| 9.023_4 | Minutiae and Ridge Count Data | Minutiae Type Designation | MNT | O | 1 | 1 | 0 | * | AN |
| 9.023_5 | Minutiae and Ridge Count Data | Ridge Count Data Octant 0 | MRO | C | 5 | 5 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.023_6 | Minutiae and Ridge Count Data | Ridge Count Data Octant 1 | MRO1 | C | 5 | 5 | 1 | 1 | N |
| 9.023_7 | Minutiae and Ridge Count Data | Ridge Count Data Octant 2 | MRO2 | C | 5 | 5 | 1 | 1 | N |
| 9.023_8 | Minutiae and Ridge Count Data | Ridge Count Data Octant 3 | MRO3 | C | 5 | 5 | 1 | 1 | N |
| 9.023_9 | Minutiae and Ridge Count Data | Ridge Count Data Octant 4 | MRO4 | C | 5 | 5 | 1 | 1 | N |
| 9.023_10 | Minutiae and Ridge Count Data | Ridge Count Data Octant 5 | MRO5 | C | 5 | 5 | 1 | 1 | N |
| 9.023_11 | Minutiae and Ridge Count Data | Ridge Count Data Octant 6 | MRO6 | C | 5 | 5 | 1 | 1 | N |
| 9.023_12 | Minutiae and Ridge Count Data | Ridge Count Data Octant 7 | MRO7 | C | 5 | 5 | 1 | 1 | N |
| 9.023_13 | Minutiae and Ridge Count Data | Octant Residuals | RSO | O | 8 | 8 | 0 | * | N |
| 9.024 | Characterization Quality | | CHQ | O | 1 | 3 | 0 | * | N |
| 9.025 | Classifier Quality | | CLQ | O | 6 | 7 | 0 | * | N |
| 9.126 | M1 CBEFF Information | | CBI | M | n/a | n/a | 0 | 1 | n/a |
| 9.126_1 | M1 CBEFF Information | CBEFF Format Owner | CFO | M↑ | 2 | 2 | 1 | 1 | N |
| 9.126_2 | M1 CBEFF Information | CBEFF Format Type | CFT | M↑ | 3 | 3 | 1 | 1 | N |
| 9.126_3 | M1 CBEFF Information | CBEFF Product Identifier | CPI | M↑ | 8 | 8 | 1 | 1 | H |
| 9.127 | M1 Capture Equipment Identification | | CEI | M | n/a | n/a | 1 | 1 | n/a |
| 9.127_1 | M1 Capture Equipment Identification | Appendix F Status | AFS | M↑ | 4 | 4 | 1 | 1 | A |
| 9.127_2 | M1 Capture Equipment Identification | Capture Equipment Identifier | CID | M↑ | 1 | 30 | 1 | 1 | U |
| 9.128 | M1 Horizontal Line Length | | HLL | M | 2 | 5 | 1 | 1 | N |
| 9.129 | M1 Vertical Line Length | | VLL | M | 2 | 5 | 1 | 1 | N |
| 9.13 | Scale Units | | SLC | M | 1 | 1 | 1 | 1 | N |
| 9.131 | Transmitted Horizontal Pixel Scale | | THPS | M | 1 | 5 | 1 | 1 | N |
| 9.132 | Transmitted Vertical Pixel Scale | | TVPS | M | 1 | 5 | 1 | 1 | N |
| 9.133 | M1 Finger View | | FVW | M | 1 | 2 | 1 | 1 | N |
| 9.134 | M1 Friction Ridge Generalized Position | | FGP | M | 1 | 2 | 1 | 1 | N |
| 9.135 | M1 Friction Ridge Quality Data | | FQD | M | n/a | n/a | 0 | 1 | n/a |
| 9.135_0 | M1 Friction Ridge Quality Data | Subfields: Repeating sets of information items | FQD_0 | M | n/a | n/a | 1 | 1 | n/a |
| 9.135_1 | M1 Friction Ridge Quality Data | Quality Value | QVU | M↑ | 1 | 3 | 0 | 1 | N |
| 9.135_2 | M1 Friction Ridge Quality Data | Algorithm Vendor Identification | QAV | O | 4 | 4 | 0 | 1 | H |
| 9.135_3 | M1 Friction Ridge Quality Data | Algorithm Product Identification | QAP | O | 1 | 5 | 1 | 1 | N |
| 9.136 | M1 Number of Minutiae | | NOM | M | 1 | 4 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|----------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.137 | M1 Finger Minutiae Data | | FMD | M | n/a | n/a | 1 | 9999 | n/a |
| 9.137_1 | M1 Finger Minutiae Data | Minutia Index Number [M1-378] | MAN | M | 1 | 4 | 1 | 1 | N |
| 9.137_2 | M1 Finger Minutiae Data | X Coordinate [M1-378] | MXC | M | 1 | 5 | 1 | 1 | N |
| 9.137_3 | M1 Finger Minutiae Data | Y Coordinate [M1-378] | MYC | M | 1 | 5 | 1 | 1 | N |
| 9.137_4 | M1 Finger Minutiae Data | Minutiae Angle [M1-378] | MAV | M | 1 | 3 | 1 | 1 | N |
| 9.137_5 | M1 Finger Minutiae Data | Minutiae Type [M1-378] | M1M | M | 1 | 1 | 1 | 1 | N |
| 9.137_6 | M1 Finger Minutiae Data | Quality of Minutia [M1-378] | QOM | M | 1 | 3 | 1 | 1 | N |
| 9.138 | M1 Ridge Count Information | | RCI | D | n/a | n/a | 0 | 0 | 1 |
| 9.138_0 | M1 Ridge Count Information | Subfields: Repeating sets of information items | RCI_0 | M↑ | n/a | n/a | 0 | 7999
3 | n/a |
| 9.138_1a | M1 Ridge Count Information | Ridge Count Extraction Method | REM | M↑ | 1 | 1 | 1 | 1 | N |
| 9.138_1b | M1 Ridge Count Information | Center Minutia Index Number | CMI | M↑ | 1 | 4 | 1 | 1 | N |
| 9.138_2a | M1 Ridge Count Information | Filler 1 | FI1 | M↑ | 1 | 1 | 1 | 1 | |
| 9.138_2b | M1 Ridge Count Information | Neighboring Minutia Index Number | NMN | M↑ | 1 | 4 | 1 | 1 | N |
| 9.138_3a | M1 Ridge Count Information | Filler 2 | FI2 | M↑ | 1 | 1 | 1 | 1 | |
| 9.138_3b | M1 Ridge Count Information | Number of Ridges Crossed | NRC | M↑ | 1 | 2 | 1 | 1 | N |
| 9.139 | M1 Core Information | | CIN | D | n/a | n/a | 0 | 1 | n/a |
| 9.139_0 | M1 Core Information | Subfields: Repeating sets of information items | CIN_0 | M↑ | n/a | n/a | 0 | 10 | n/a |
| 9.139_1 | M1 Core Information | X Coordinate [M1 Core] | XCC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.139_2 | M1 Core Information | Y Coordinate [M1 Core] | YCC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.139_3 | M1 Core Information | Angle of the Core | ANGC | M↑ | 1 | 3 | 1 | 1 | N |
| 9.14 | M1 Delta Information | | DIN | D | n/a | n/a | 0 | 1 | n/a |
| 9.140_0 | M1 Delta Information | Subfields: Repeating sets of information items | DIN_0 | M↑ | n/a | n/a | 0 | 10 | n/a |
| 9.140_1 | M1 Delta Information | X Coordinate [M1 Delta] | XCD | M↑ | 1 | 5 | 1 | 1 | N |
| 9.140_2 | M1 Delta Information | Y Coordinate [M1 Delta] | YCD | M↑ | 1 | 5 | 1 | 1 | N |
| 9.140_3 | M1 Delta Information | First Angle of the Delta | ANG1 | M↑ | 1 | 5 | 1 | 3 | N |
| 9.141 | M1 Additional Delta Angles | | ADA | D | n/a | n/a | 0 | 1 | n/a |
| 9.141_0 | M1 Additional Delta Angles | Subfields: Repeating sets of information items | ADA_0 | M↑ | n/a | n/a | 0 | 10 | n/a |
| 9.141_1 | M1 Additional Delta Angles | Second Angle of the Delta | ANG2 | M↑ | 1 | 3 | 1 | 3 | N |
| 9.141_2 | M1 Additional Delta Angles | Third Angle of the Delta | ANG3 | M↑ | 1 | 3 | 1 | 3 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|------------------------------------|--|----------|-------|-----------|-----------|-----------|----------------------|------------|
| 9.3 | Region of Interest | | ROI | M | n/a | n/a | 1 | 1 | n/a |
| 9.300_1 | Region of Interest | ROI Width | EWI | M↑ | 1 | 5 | 1 | 1 | N |
| 9.300_2 | Region of Interest | ROI Height | EHl | M↑ | 1 | 5 | 1 | 1 | N |
| 9.300_3 | Region of Interest | ROI Horizontal Offset | EHO | O | 1 | 5 | 0 | 1 | N |
| 9.300_4 | Region of Interest | ROI Vertical Offset | EVO | O | 1 | 5 | 0 | 1 | N |
| 9.300_5 | Region of Interest | ROI Polygon | ROP | O | 1186 | 1188 | 3 | 99 | NS |
| 9.301 | EFS Orientation | | ORT | O | n/a | n/a | 0 | 1 | n/a |
| 9.301_1 | EFS Orientation | EFS Orientation Direction | EOD | M↑ | 1 | 4 | 1 | 1 | NS |
| 9.301_2 | EFS Orientation | EFS Orientation Uncertainty | EUC | O↑ | 1 | 3 | 0 | 1 | N |
| 9.302 | EFS Finger, Palm, Plantar Position | | FPP | M | n/a | n/a | 0 | 1 | n/a |
| 9.302_0 | EFS Finger, Palm, Plantar Position | Subfields: Repeating sets of information items | FPP_0 | M | n/a | n/a | 1 | 20 | n/a |
| 9.302_1 | EFS Finger, Palm, Plantar Position | Friction Ridge Generalized Position | FGP | M↑ | 1 | 2 | 1 | 1 | N |
| 9.302_2 | EFS Finger, Palm, Plantar Position | Finger Segment | FSM | O | 3 | 3 | 0 | 1 | A |
| 9.302_3 | EFS Finger, Palm, Plantar Position | Off-Center Fingerprint | OCF | O | 1 | 1 | 0 | 1 | A |
| 9.302_4 | EFS Finger, Palm, Plantar Position | Segment Polygon | SGP | O | 1186 | 1188 | 3 | 99 | NS |
| 9.303 | EFS Finger Set Profile | | FSP | O | n/a | n/a | 0 | 1 | N |
| 9.303_0 | EFS Finger Set Profile | | FSP_0 | M↑ | 1 | 2 | 0 | 10 | N |
| 9.307 | EFS Pattern Classification | | PAT | D | n/a | n/a | 0 | 1 | n/a |
| 9.307_0 | EFS Pattern Classification | Subfields: Repeating sets of information items | PAT_0 | M↑ | n/a | n/a | 0 | 8 | n/a |
| 9.307_1 | EFS Pattern Classification | General Class | GCF | M↑ | 2 | 2 | 1 | 1 | A |
| 9.307_2 | EFS Pattern Classification | Subclass | SUB | D | 2 | 2 | 0 | 1 | A |
| 9.307_3 | EFS Pattern Classification | Whorl-Delta Relationship | WDR | D | 1 | 1 | 0 | 1 | A |
| 9.308 | EFS Ridge Quality Map | | RQM | O | n/a | n/a | 0 | 1 | n/a |
| 9.308_0 | EFS Ridge Quality Map | Subfields: Repeating sets of information items | RQM_0 | M↑ | 1 | 50000 | 0 | Round Up (EHI ÷ GSZ) | H |
| 9.309 | Ridge Quality Map Format | | RQF | D | n/a | n/a | 0 | 1 | n/a |
| 9.309_1 | Ridge Quality Map Format | Grid Size | GSZ | M↑ | 1 | 2 | 1 | 1 | N |
| 9.309_2 | Ridge Quality Map Format | Ridge Quality Data Format | RDF | M↑ | 3 | 3 | 1 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|-----------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.31 | EFS Ridge Flow Map | | RFM | O | n/a | n/a | 0 | 1 | Base 64 |
| 9.310_0 | EFS Ridge Flow Map | Subfields: Repeating sets of information items | RFM_0 | M↑ | 1 | 100000 | 1 | * | Base 65 |
| 9.311 | EFS Ridge Flow Map Format | | RFF | O | n/a | n/a | 0 | 1 | n/a |
| 9.311_1 | EFS Ridge Flow Map Format | Sampling Frequency | SFQ | M↑ | 1 | 2 | 1 | 1 | N |
| 9.311_2 | EFS Ridge Flow Map Format | Ridge Flow Data Format | RDF | M↑ | 3 | 3 | 1 | 1 | AN |
| 9.312 | EFS Ridge Wavelength Map | | RWM | O | n/a | n/a | 0 | 1 | n/a |
| 9.312_0 | EFS Ridge Wavelength Map | Subfields: Repeating sets of information items | RWM_0 | M↑ | 1 | 100000 | 0 | 1 | AN |
| 9.313 | EFS Ridge Wavelength Map Format | | RWF | O | n/a | n/a | 0 | 1 | n/a |
| 9.313_1 | EFS Ridge Wavelength Map Format | Sampling Frequency | FWS | M↑ | 1 | 2 | 1 | 1 | N |
| 9.313_2 | EFS Ridge Wavelength Map Format | Data Format | FDF | M↑ | 3 | 3 | 1 | 1 | A |
| 9.314 | EFS Tonal Reversal | | TRV | O | 1 | 1 | 0 | 1 | A |
| 9.315 | EFS Possible Lateral Reversal | | PLR | O | 1 | 1 | 0 | 1 | A |
| 9.316 | EFS Friction Ridge Quality Metric | | FQM | O | n/a | n/a | 0 | 1 | n/a |
| 9.316_0 | EFS Friction Ridge Quality Metric | Subfields: Repeating sets of information items | FQM_0 | M↑ | n/a | n/a | 0 | 10 | n/a |
| 9.316_1 | EFS Friction Ridge Quality Metric | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 9.316_2 | EFS Friction Ridge Quality Metric | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 9.316_3 | EFS Friction Ridge Quality Metric | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 9.317 | EFS Possible Growth or Shrinkage | | PGS | O | n/a | n/a | 0 | 1 | n/a |
| 9.317_1 | EFS Possible Growth or Shrinkage | Growth or Shrinkage Type | TGS | M↑ | 1 | 1 | 1 | 1 | A |
| 9.317_2 | EFS Possible Growth or Shrinkage | Growth or Shrinkage Comment | CGS | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.32 | EFS Cores | | COR | D | n/a | n/a | 0 | 1 | n/a |
| 9.320_0 | EFS Cores | Subfields: Repeating sets of information items | COR_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.320_1 | EFS Cores | X Coordinate | CXC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.320_2 | EFS Cores | Y Coordinate | CYC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.320_3 | EFS Cores | Direction | CDI | O↑ | 1 | 3 | 0 | 1 | N |
| 9.320_4 | EFS Cores | Radius of Position Uncertainty | RPU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.320_5 | EFS Cores | Direction Uncertainty | DUY | O↑ | 1 | 3 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.321 | EFS Deltas | | DEL | D | n/a | n/a | 0 | 1 | n/a |
| 9.321_0 | EFS Deltas | Subfields: Repeating sets of information items | DEL_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.321_1 | EFS Deltas | X Coordinate | DXC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.321_2 | EFS Deltas | Y Coordinate | DYC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.321_3 | EFS Deltas | Direction Up | DUP | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_4 | EFS Deltas | Direction Left | DLF | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_5 | EFS Deltas | Direction Right | DRT | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_6 | EFS Deltas | Type | DTP | O↑ | 1 | 3 | 0 | 1 | AN |
| 9.321_7 | EFS Deltas | Radius of Position Uncertainty | RPU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_8 | EFS Deltas | Direction Uncertainty Up | DUU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_9 | EFS Deltas | Direction Uncertainty Left | DUL | O↑ | 1 | 3 | 0 | 1 | N |
| 9.321_10 | EFS Deltas | Direction Uncertainty Right | DUR | O↑ | 1 | 3 | 0 | 1 | N |
| 9.322 | EFS Core-Delta Ridge Counts | | CDR | O | n/a | n/a | 0 | 1 | n/a |
| 9.322_0 | EFS Core-Delta Ridge Counts | Subfields: Repeating sets of information items | CDR_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.322_1 | EFS Core-Delta Ridge Counts | Core Index | CIX | M↑ | 1 | 2 | 1 | 1 | AN |
| 9.322_2 | EFS Core-Delta Ridge Counts | Delta Index | DIX | M↑ | 1 | 2 | 1 | 1 | AN |
| 9.322_3 | EFS Core-Delta Ridge Counts | Min Ridge Count | MNRC | M↑ | 1 | 2 | 1 | 1 | N |
| 9.322_4 | EFS Core-Delta Ridge Counts | Max Ridge Count | MXRC | O↑ | 1 | 2 | 0 | 1 | N |
| 9.323 | EFS Center Point of Reference | | CPR | O | n/a | n/a | 0 | 1 | n/a |
| 9.323_0 | EFS Center Point of Reference | Subfields: Repeating sets of information items | CPR_0 | M↑ | n/a | n/a | 0 | 4 | n/a |
| 9.323_1 | EFS Center Point of Reference | Method | CPM | M↑ | 1 | 1 | 1 | 1 | AN |
| 9.323_2 | EFS Center Point of Reference | X Coordinate | PXC | M↑ | 1 | 5 | 1 | 1 | NS |
| 9.323_3 | EFS Center Point of Reference | Y Coordinate | PYC | M↑ | 1 | 5 | 1 | 1 | NS |
| 9.323_4 | EFS Center Point of Reference | Radius of Position Uncertainty | CRU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.324 | EFS Distinctive Features | | DIS | D | n/a | n/a | 0 | 1 | n/a |
| 9.324_0 | EFS Distinctive Features | Subfields: Repeating sets of information items | DIS_0 | M↑ | n/a | n/a | 0 | 100 | n/a |
| 9.324_1 | EFS Distinctive Features | Distinctive Feature Type | DIT | M↑ | 4 | 9 | 1 | 1 | A |
| 9.324_2 | EFS Distinctive Features | Distinctive Features Polygon | DFP | O↑ | 11 | 1188 | 3 | 99 | NS |
| 9.324_3 | EFS Distinctive Features | Distinctive Features Comment | DFC | O↑ | 1 | 1000 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|-------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.325 | EFS No Cores Present | | NCOR | D | 1 | 1 | 0 | 1 | A |
| 9.326 | EFS No Deltas Present | | NDEL | D | 1 | 1 | 0 | 1 | A |
| 9.327 | EFS No Distinctive Features Present | | NDIS | D | 1 | 1 | 0 | 1 | A |
| 9.331 | EFS Minutiae | | MIN | D | n/a | n/a | 0 | 1 | n/a |
| 9.331_0 | EFS Minutiae | Subfields: Repeating sets of information items | MIN_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.331_1 | EFS Minutiae | X Coordinate | MXC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.331_2 | EFS Minutiae | Y Coordinate | MYC | M↑ | 1 | 5 | 1 | 1 | N |
| 9.331_3 | EFS Minutiae | Theta Degrees | MTD | M↑ | 1 | 3 | 1 | 1 | N |
| 9.331_4 | EFS Minutiae | Minutiae Type | MTY | M↑ | 1 | 1 | 1 | 1 | A |
| 9.331_5 | EFS Minutiae | Radius of Posiiton Uncertainty | MRU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.331_6 | EFS Minutiae | Minutia Direction of Uncertainty | MDU | O↑ | 1 | 3 | 0 | 1 | N |
| 9.332 | EFS Minutiae Ridge Count Algorithm | | MRA | D | 5 | 8 | 0 | 1 | AN |
| 9.333 | EFS Minutiae Ridge Counts | | MRC | D | n/a | n/a | 0 | 1 | n/a |
| 9.333_0 | EFS Minutiae Ridge Counts | Subfields: Repeating sets of information items | MRC_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.333_1 | EFS Minutiae Ridge Counts | Minutiae Index A | MIA | M↑ | 1 | 4 | 1 | 1 | N |
| 9.333_2 | EFS Minutiae Ridge Counts | Minutiae Index B | MIB | M↑ | 1 | 4 | 1 | 1 | N |
| 9.333_3 | EFS Minutiae Ridge Counts | Ridge Count | MIR | M↑ | 1 | 2 | 1 | 1 | N |
| 9.333_4 | EFS Minutiae Ridge Counts | Reference Number | MRN | O↑ | 1 | 1 | 0 | 1 | N |
| 9.333_5 | EFS Minutiae Ridge Counts | Residual | MRS | O↑ | 1 | 1 | 0 | 1 | N |
| 9.334 | EFS No Minutiae Present | | NMIN | D | 1 | 1 | 0 | 1 | A |
| 9.335 | EFS Ridge Count Confidence | | RCC | D | n/a | n/a | 0 | 1 | n/a |
| 9.335_0 | EFS Ridge Count Confidence | Subfields: Repeating sets of information items | RCC_0 | M↑ | n/a | n/a | 0 | 7993 | n/a |
| 9.335_1 | EFS Ridge Count Confidence | X Coordinate Point A | ACX | M↑ | 1 | 5 | 1 | 1 | N |
| 9.335_2 | EFS Ridge Count Confidence | Y Coordinate Point A | ACY | M↑ | 1 | 5 | 1 | 1 | N |
| 9.335_3 | EFS Ridge Count Confidence | X Coordinate Point B | BCX | M↑ | 1 | 5 | 1 | 1 | N |
| 9.335_4 | EFS Ridge Count Confidence | Y Coordinate Point B | BCY | M↑ | 1 | 5 | 1 | 1 | N |
| 9.335_5 | EFS Ridge Count Confidence | Method of Ridge Counting | MORC | M↑ | 1 | 1 | 1 | 1 | A |
| 9.335_6 | EFS Ridge Count Confidence | Confidence Value | MCV | M↑ | 1 | 2 | 1 | 1 | N |
| 9.34 | EFS Dots | | DOT | D | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.340_0 | EFS Dots | Subfields: Repeating sets of information items | DOT_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.340_1 | EFS Dots | Dot X Coordinate | DOX | M↑ | 1 | 5 | 1 | 1 | N |
| 9.340_2 | EFS Dots | Dot Y Coordinate | DOY | M↑ | 1 | 5 | 1 | 1 | N |
| 9.340_3 | EFS Dots | Dot Length | DOL | O↑ | 1 | 2 | 0 | 1 | N |
| 9.341 | EFS Incipient Ridges | | INR | D | n/a | n/a | 0 | 1 | n/a |
| 9.341_0 | EFS Incipient Ridges | Subfields: Repeating sets of information items | INR_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.341_1 | EFS Incipient Ridges | X Coordinate Point 1 | X1C | M↑ | 1 | 5 | 1 | 1 | N |
| 9.341_2 | EFS Incipient Ridges | Y Coordinate Point 1 | Y1C | M↑ | 1 | 5 | 1 | 1 | N |
| 9.341_3 | EFS Incipient Ridges | X Coordinate Point 2 | X2C | M↑ | 1 | 5 | 1 | 1 | N |
| 9.341_4 | EFS Incipient Ridges | Y Coordinate Point 2 | Y2C | M↑ | 1 | 5 | 1 | 1 | N |
| 9.342 | EFS Creases and Linear Discontinuities | | CLD | D | n/a | n/a | 0 | 1 | n/a |
| 9.342_0 | EFS Creases and Linear Discontinuities | Subfields: Repeating sets of information items | CLD_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.342_1 | EFS Creases and Linear Discontinuities | X Coordinate Point 1 | X1D | M↑ | 1 | 5 | 1 | 1 | N |
| 9.342_2 | EFS Creases and Linear Discontinuities | Y Coordinate Point 1 | Y1D | M↑ | 1 | 5 | 1 | 1 | N |
| 9.342_3 | EFS Creases and Linear Discontinuities | X Coordinate Point 2 | X2D | M↑ | 1 | 5 | 1 | 1 | N |
| 9.342_4 | EFS Creases and Linear Discontinuities | Y Coordinate Point 2 | Y2D | M↑ | 1 | 5 | 1 | 1 | N |
| 9.342_5 | EFS Creases and Linear Discontinuities | Type | TPD | M↑ | 2 | 5 | 1 | 1 | AN |
| 9.343 | EFS Ridge Edge Features | | REF | D | n/a | n/a | 0 | 1 | n/a |
| 9.343_0 | EFS Ridge Edge Features | Subfields: Repeating sets of information items | REF_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.343_1 | EFS Ridge Edge Features | X Coordinate | CLX | M↑ | 1 | 5 | 1 | 1 | N |
| 9.343_2 | EFS Ridge Edge Features | Y Coordinate | CLY | M↑ | 1 | 5 | 1 | 1 | N |
| 9.343_3 | EFS Ridge Edge Features | Type | CLT | M↑ | 1 | 1 | 0 | 1 | A |
| 9.344 | EFS No Pores Present | | NPOR | D | 1 | 1 | 0 | 1 | A |
| 9.345 | EFS Pores | | POR | O | n/a | n/a | 0 | 1 | n/a |
| 9.345_0 | EFS Pores | Subfields: Repeating sets of information items | POR_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.345_1 | EFS Pores | X Coordinate | POX | M↑ | 1 | 5 | 1 | 1 | N |
| 9.345_2 | EFS Pores | Y Coordinate | POY | M↑ | 1 | 5 | 1 | 1 | N |
| 9.346 | EFS No Dots Present | | NDOT | D | 1 | 1 | 0 | 1 | A |
| 9.347 | EFS No Incipient Ridges Present | | NINR | D | 1 | 1 | 0 | 1 | A |
| 9.348 | EFS No Creases Present | | NCLD | D | 1 | 1 | 0 | 1 | A |
| 9.349 | EFS No Ridge Edge Features Present | | NREF | D | 1 | 1 | 0 | 1 | A |
| 9.35 | EFS Method of Feature Detection | | MFD | O | n/a | n/a | 0 | 1 | n/a |
| 9.350_0 | EFS Method of Feature Detection | Subfields: Repeating sets of information items | MFD_0 | M↑ | n/a | n/a | 0 | 100 | n/a |
| 9.350_1 | EFS Method of Feature Detection | Field | FIE | M↑ | 3 | 999 | 1 | 1 | ANS |
| 9.350_2 | EFS Method of Feature Detection | Method | FME | M↑ | 3 | 4 | 1 | 1 | A |
| 9.350_3 | EFS Method of Feature Detection | Algorithm Vendor | FAV | D | 1 | 40 | 0 | 1 | U |
| 9.350_4 | EFS Method of Feature Detection | Algorithm | FAL | D | 1 | 40 | 0 | 1 | U |
| 9.350_5 | EFS Method of Feature Detection | Examiner Surname | ESN | D | 1 | 40 | 0 | 1 | U |
| 9.350_6 | EFS Method of Feature Detection | Examiner Given Name | EGN | D | 1 | 40 | 0 | 1 | U |
| 9.350_7 | EFS Method of Feature Detection | Examiner Affiliation | EAF | D | 1 | 66 | 0 | 1 | U |
| 9.350_8 | EFS Method of Feature Detection | Date and Time | EMT | M↑ | 15 | 15 | 0 | 1 | AN |
| 9.350_9 | EFS Method of Feature Detection | Notes | NTS | O↑ | 1 | 99 | 0 | 1 | U |
| 9.351 | EFS Comment | | COM | O | 1 | 123 | 0 | 1 | U |
| 9.352 | EFS Latent Processing Method | | LPM | O | n/a | n/a | 0 | 1 | n/a |
| 9.352_0 | EFS Latent Processing Method | Subfields: Repeating sets of information items | LPM_0 | M↑ | 3 | 3 | 0 | 10 | AN |
| 9.353 | EFS Examiner Analysis Assessment | | EAA | O | n/a | n/a | 0 | 1 | n/a |
| 9.353_1 | EFS Examiner Analysis Assessment | Value Assessment Code | AAV | M↑ | 5 | 8 | 1 | 1 | A |
| 9.353_2 | EFS Examiner Analysis Assessment | Examiner Last Name | ALN | M↑ | 1 | 40 | 1 | 1 | U |
| 9.353_3 | EFS Examiner Analysis Assessment | Examiner First Name | AFN | M↑ | 1 | 40 | 1 | 1 | U |
| 9.353_4 | EFS Examiner Analysis Assessment | Examiner Affiliation | AAF | M↑ | 1 | 99 | 1 | 1 | U |
| 9.353_5 | EFS Examiner Analysis Assessment | Date and Time (GMT) | AMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 9.353_6 | EFS Examiner Analysis Assessment | Comment | ACM | O↑ | 1 | 200 | 0 | 1 | U |
| 9.353_7 | EFS Examiner Analysis Assessment | Analysis Complexity Flag | CXF | O↑ | 7 | 7 | 0 | 1 | A |
| 9.354 | EFS Evidence of Fraud | | EOF | O | n/a | n/a | 0 | 1 | n/a |
| 9.354_0 | EFS Evidence of Fraud | Subfields: Repeating sets of information items | EOF_0 | M↑ | n/a | n/a | 0 | 5 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.354_1 | EFS Evidence of Fraud | Fraud Type | FRA | M↑ | 3 | 3 | 1 | 1 | A |
| 9.354_2 | EFS Evidence of Fraud | Comment | CFD | O↑ | 1 | 200 | 0 | 1 | U |
| 9.355 | EFS Latent Substrate | | LSB | O | n/a | n/a | 0 | 1 | n/a |
| 9.355_0 | EFS Latent Substrate | Subfields: Repeating sets of information items | LSB_0 | M↑ | n/a | n/a | 0 | 4 | n/a |
| 9.355_1 | EFS Latent Substrate | Code | CLS | M↑ | 1 | 2 | 1 | 1 | AN |
| 9.355_2 | EFS Latent Substrate | Object / Substrate Description | OSD | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.356 | EFS Latent Matrix | | LMT | O | n/a | n/a | 0 | 1 | n/a |
| 9.356_0 | EFS Latent Matrix | Subfields: Repeating sets of information items | LMT_0 | M↑ | n/a | n/a | 0 | 4 | n/a |
| 9.356_1 | EFS Latent Matrix | Code | TOM | M↑ | 1 | 2 | 1 | 1 | N |
| 9.356_2 | EFS Latent Matrix | Comment | CLA | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.357 | EFS Local Quality Issues | | LQI | O | n/a | n/a | 0 | 1 | n/a |
| 9.357_0 | EFS Local Quality Issues | Subfields: Repeating sets of information items | LQI_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.357_1 | EFS Local Quality Issues | Type | LQT | M↑ | 4 | 10 | 1 | 1 | A |
| 9.357_2 | EFS Local Quality Issues | Polygon | LQP | M↑ | 11 | 1188 | 1 | 1 | NS |
| 9.357_3 | EFS Local Quality Issues | Comment | LQC | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.36 | EFS Area of Correspondence | | AOC | O | n/a | n/a | 0 | 1 | n/a |
| 9.360_0 | EFS Area of Correspondence | Subfields: Repeating sets of information items | AOC_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 9.360_1 | EFS Area of Correspondence | IDC Reference | CIR | M↑ | 1 | 2 | 1 | 1 | N |
| 9.360_2 | EFS Area of Correspondence | Polygon (Closed Path) | AOP | M↑ | 11 | 1188 | 1 | 1 | NS |
| 9.360_3 | EFS Area of Correspondence | Comment | CAC | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.361 | EFS Corresponding Points or Features | | CPF | O | n/a | n/a | 0 | 1 | n/a |
| 9.361_0 | EFS Corresponding Points or Features | Subfields: Repeating sets of information items | CPF_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.361_1 | EFS Corresponding Points or Features | Label | COL | M↑ | 1 | 3 | 1 | 1 | AN |
| 9.361_2 | EFS Corresponding Points or Features | Type of Correspondence | TOC | M↑ | 1 | 2 | 1 | 1 | A |
| 9.361_3 | EFS Corresponding Points or Features | Corresponding Field Number | CFN | D | 3 | 3 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.361_4 | EFS Corresponding Points or Features | Corresponding Field Occurance | FOC | D | 1 | 3 | 0 | 1 | N |
| 9.361_5 | EFS Corresponding Points or Features | Corresponding X Coordinate | CXC | D | 1 | 5 | 0 | 1 | N |
| 9.361_6 | EFS Corresponding Points or Features | Corresponding Y Coordinate | CYC | D | 1 | 5 | 0 | 1 | N |
| 9.361_7 | EFS Corresponding Points or Features | Comment | COC | O↑ | 1 | 1000 | 0 | 1 | U |
| 9.362 | EFS Examiner Comparison Determination | | ECD | O | n/a | n/a | 0 | 1 | n/a |
| 9.362_0 | EFS Examiner Comparison Determination | Subfields: Repeating sets of information items | ECD_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.362_1 | EFS Examiner Comparison Determination | IDC Reference | EDC | M↑ | 1 | 2 | 1 | 1 | N |
| 9.362_2 | EFS Examiner Comparison Determination | Determination | EDE | M↑ | 4 | 6 | 1 | 1 | AS |
| 9.362_3 | EFS Examiner Comparison Determination | Work In Progress | WIP | M↑ | 5 | 11 | 1 | 1 | A |
| 9.362_4 | EFS Examiner Comparison Determination | Examiner Last Name | ELN | M↑ | 1 | 40 | 1 | 1 | U |
| 9.362_5 | EFS Examiner Comparison Determination | Examiner First Name | EFN | M↑ | 1 | 40 | 1 | 1 | U |
| 9.362_6 | EFS Examiner Comparison Determination | Examiner Affiliation | EAF | M↑ | 1 | 99 | 1 | 1 | U |
| 9.362_7 | EFS Examiner Comparison Determination | Date and Time (GMT) | DTG | M↑ | 15 | 15 | 1 | 1 | AN |
| 9.362_8 | EFS Examiner Comparison Determination | Comment | CZZ | O↑ | 1 | 200 | 0 | 1 | U |
| 9.362_9 | EFS Examiner Comparison Determination | Complex Comparison Flag | CCF | O↑ | 7 | 7 | 0 | 1 | A |
| 9.363 | EFS Relative Rotation of Corresponding Print | | RRC | O | n/a | n/a | 0 | 1 | n/a |
| 9.363_0 | EFS Relative Rotation of Corresponding Print | Subfields: Repeating sets of information items | RRC_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.363_1 | EFS Relative Rotation of Corresponding Print | Rotation IDC Reference | RIR | M↑ | 1 | 2 | 1 | 1 | N |
| 9.363_2 | EFS Relative Rotation of Corresponding Print | Relative Overall Rotation | ROR | M↑ | 1 | 4 | 1 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|---------|-----------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 9.372 | EFS Skeletonized Image | | SIM | O | 8 | Unlimited | 0 | 1 | Base 64 |
| 9.373 | EFS Ridge Path Segments | | RPS | O | n/a | n/a | 3 | 99 | n/a |
| 9.373_0 | EFS Ridge Path Segments | Subfields: Repeating sets of information items | RPS_0 | M↑ | 7 | 1188 | 3 | 100 | NS |
| 9.38 | EFS Temporary Lines | | TPL | O | n/a | n/a | 0 | 1 | n/a |
| 9.380_0 | EFS Temporary Lines | Subfields: Repeating sets of information items | TPL_0 | M↑ | n/a | n/a | 0 | 100 | n/a |
| 9.380_1 | EFS Temporary Lines | X Coordinate Point A | TXA | M↑ | 1 | 5 | 1 | 1 | N |
| 9.380_2 | EFS Temporary Lines | Y Coordinate Point A | TYA | M↑ | 1 | 5 | 1 | 1 | N |
| 9.380_3 | EFS Temporary Lines | X Coordinate Point B | TXB | M↑ | 1 | 5 | 1 | 1 | N |
| 9.380_4 | EFS Temporary Lines | Y Coordinate Point B | TYB | M↑ | 1 | 5 | 1 | 1 | N |
| 9.380_5 | EFS Temporary Lines | Line Color | TLC | M↑ | 1 | 6 | 1 | 1 | H |
| 9.380_6 | EFS Temporary Lines | Line Thickness | TLT | M↑ | 1 | 2 | 1 | 1 | N |
| 9.381 | EFS Feature Color | | FCC | O | n/a | n/a | 0 | 1 | n/a |
| 9.381_0 | EFS Feature Color | Subfields: Repeating sets of information items | FCC_0 | M↑ | n/a | n/a | 0 | 1000 | n/a |
| 9.381_1 | EFS Feature Color | Feature - Field Number | FTF | M↑ | 3 | 3 | 1 | 1 | N |
| 9.381_2 | EFS Feature Color | Feature - Field Occurrence | FTO | M↑ | 1 | 3 | 1 | 1 | N |
| 9.381_3 | EFS Feature Color | Feature- Color | FTC | D | 6 | 6 | 0 | 1 | H |
| 9.381_4 | EFS Feature Color | Feature - Comment | COM | D | 1 | 1000 | 0 | 1 | U |
| 9.901 | Universal Latent Annotation | | ULA | O | n/a | n/a | 0 | * | n/a |
| 9.901_0 | Universal Latent Annotation | Subfields: Repeating sets of information items | ULA_0 | M↑ | 22 | 300 | 0 | * | ANS |
| 9.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 9.902_0 | Annotated Information | Subfields: Repeating sets of information items | ANN_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 9.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 9.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 9.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 9.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | Unlimited | 1 | 1 | U |
| 9.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 9.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---|-----------------------------------|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 9.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 9.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 9.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 10.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 10.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 10.003 | Image Type | | IMT | M | 4 | 11 | 1 | 1 | AS |
| 10.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 10.005 | Photo Capture Date | | PHD | M | Dependent on encoding | Dependent on encoding | 1 | 1 | N |
| 10.006 | Horizontal Line Length | | HLL | M | 2 | 5 | 1 | 1 | N |
| 10.007 | Vertical Line Length | | VLL | M | 2 | 5 | 1 | 1 | N |
| 10.008 | Scale Units | | SLC | M | 1 | 1 | 1 | 1 | N |
| 10.009 | Transmitted Horizontal Pixel Scale | | THPS | M | 1 | 5 | 1 | 1 | N |
| 10.01 | Transmitted Vertical Pixel Scale | | TVPS | M | 1 | 5 | 1 | 1 | N |
| 10.011 | Compression Algorithm | | CGA | M | 3 | 5 | 1 | 1 | AN |
| 10.012 | Color Space | | CSP | M | 3 | 4 | 1 | 1 | A |
| 10.013 | Subject Acquisition Profile | | SAP | D | 1 | 2 | 0 | 1 | N |
| 10.014 | Face Image Bounding Box Coordinates in Full Image | | FIP | D | n/a | n/a | 0 | 1 | N |
| 10.014_1 | Face Image Bounding Box Coordinates in Full Image | Left Horizontal Coordinate Value | LHC | M↑ | 1 | 5 | 1 | 1 | N |
| 10.014_2 | Face Image Bounding Box Coordinates in Full Image | Right Horizontal Coordinate Value | RHC | M↑ | 1 | 5 | 1 | 1 | N |
| 10.014_3 | Face Image Bounding Box Coordinates in Full Image | Top Vertical Coordinate Value | TVC | M↑ | 1 | 5 | 1 | 1 | N |
| 10.014_4 | Face Image Bounding Box Coordinates in Full Image | Bottom Vertical Coordinate Value | BVC | M↑ | 1 | 5 | 1 | 1 | N |
| 10.014_5 | Face Image Bounding Box Coordinates in Full Image | Bounding Box Head Position Code | BBC | O↑ | 1 | 1 | 0 | 1 | A |
| 10.015 | Face Image Path Coordinates in Full Image | | FPFI | O | n/a | n/a | 0 | 1 | n/a |
| 10.015_1 | Face Image Path Coordinates in Full Image | Boundary Code | BYC | M↑ | 1 | 1 | 1 | 1 | A |
| 10.015_2 | Face Image Path Coordinates in Full Image | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 10.015_3 | Face Image Path Coordinates in Full Image | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 2 | NOP | N |
| 10.015_4 | Face Image Path Coordinates in Full Image | Vertical Point Offset | VPO | M↑ | 1 | 5 | 2 | NOP | N |
| 10.016 | Scanned Horizontal Pixel Scale | | SHPS | O | 1 | 5 | 0 | 1 | N |
| 10.017 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 10.018 | Distortion | | DIST | O | n/a | n/a | 0 | 1 | n/a |
| 10.018_1 | Distortion | Distortion Code | IDK | M↑ | 6 | 10 | 1 | 1 | A |
| 10.018_2 | Distortion | Distortion Measurement Code | IDM | M↑ | 1 | 1 | 1 | 1 | A |
| 10.018_3 | Distortion | Distortion Severity Code | DSC | M↑ | 4 | 8 | 1 | 1 | A |
| 10.019 | Lighting Artifacts | | LAF | D | n/a | n/a | 0 | 1 | A |
| 10.019_0 | Lighting Artifacts | Subfields: Repeating values | LAF_0 | M↑ | 1 | 1 | 1 | 3 | A |
| 10.02 | Subject Pose | | POS | D | 1 | 1 | 0 | 1 | A |
| 10.021 | Pose Offset Angle | | POA | D | 1 | 4 | 0 | 1 | NS |
| 10.023 | Photo Acquisition Source | | PAS | D | n/a | n/a | 0 | 1 | n/a |
| 10.023_1 | Photo Acquisition Source | Photo Attribute Code | PAC | M↑ | 6 | 14 | 1 | 1 | ANS |
| 10.023_2 | Photo Acquisition Source | Vendor-Specific Description | VSD | D | 1 | 64 | 0 | 1 | U |
| 10.024 | Subject Quality Score | | SQS | D | n/a | n/a | 0 | 1 | n/a |
| 10.024_0 | Subject Quality Score | Subfields: Repeating sets of information items | SQS_0 | M↑ | n/a | n/a | 1 | 9 | n/a |
| 10.024_1 | Subject Quality Score | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 10.024_2 | Subject Quality Score | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 10.024_3 | Subject Quality Score | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 10.025 | Subject Pose Angles | | SPA | D | n/a | n/a | 0 | 1 | n/a |
| 10.025_1 | Subject Pose Angles | Yaw Angle | YAW | M↑ | 1 | 4 | 1 | 1 | NS |
| 10.025_2 | Subject Pose Angles | Pitch Angle | PIT | M↑ | 1 | 3 | 1 | 1 | NS |
| 10.025_3 | Subject Pose Angles | Roll Angle | ROL | M↑ | 1 | 4 | 1 | 1 | NS |
| 10.025_4 | Subject Pose Angles | Uncertainty in Degrees for Yaw | YAWU | O↑ | 1 | 2 | 0 | 1 | N |
| 10.025_5 | Subject Pose Angles | Uncertainty in Degrees for Pitch | PITU | O↑ | 1 | 2 | 0 | 1 | N |
| 10.025_6 | Subject Pose Angles | Uncertainty in Degrees for Roll | ROLU | O↑ | 1 | 2 | 0 | 1 | N |
| 10.026 | Subject Facial Description | | SXS | D | n/a | n/a | 0 | 1 | D |
| 10.026_0 | Subject Facial Description | Subfields: repeating values | SXS_0 | M↑ | 3 | 20 | 1 | 50 | AS |
| 10.027 | Subject Eye Color - Repeating values. | | SEC | D | 3 | 3 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 10.028 | Subject Hair Color | | SHC | D | n/a | n/a | 0 | 1 | n/a |
| 10.028_0 | Subject Hair Color | Subfields: Repeating values | SHC_0 | M↑ | 3 | 3 | 1 | 2 | A |
| 10.029 | 2D Facial Feature Points | | FFP | M↑ | n/a | n/a | 0 | 1 | n/a |
| 10.029_0 | 2D Facial Feature Points | Subfields: Repeating sets of information items | FFP_0 | M↑ | n/a | n/a | 1 | 88 | n/a |
| 10.029_1 | 2D Facial Feature Points | Feature Point Type | FPT | M↑ | 1 | 1 | 1 | 1 | N |
| 10.029_2 | 2D Facial Feature Points | Feature Point Code | FPC | M↑ | 3 | 5 | 1 | 1 | ANS |
| 10.029_3 | 2D Facial Feature Points | X Coordinate | HCX | M↑ | 1 | 5 | 1 | 1 | N |
| 10.029_4 | 2D Facial Feature Points | Y Coordinate | HCY | M↑ | 1 | 5 | 1 | 1 | N |
| 10.03 | Device Monitoring Mode | | DMM | O | 7 | 10 | 0 | 1 | A |
| 10.031 | Tiered Markup Collection | | TMC | D | 1 | 3 | 0 | 1 | N |
| 10.032 | 3D Facial Feature Points | | 3DF | D | n/a | n/a | 0 | 1 | n/a |
| 10.032_0 | 3D Facial Feature Points | Subfields: Repeating sets of information items | FFP_0 | M↑ | n/a | n/a | 1 | 88 | n/a |
| 10.032_1 | 3D Facial Feature Points | Feature Point Type | FPT | M↑ | 1 | 1 | 1 | 1 | N |
| 10.032_2 | 3D Facial Feature Points | Feature Point Code | FPC | M↑ | 3 | 5 | 1 | 1 | ANS |
| 10.032_3 | 3D Facial Feature Points | X Coordinate | HCX | M↑ | 1 | 5 | 1 | 1 | N |
| 10.032_4 | 3D Facial Feature Points | Y Coordinate | HCY | M↑ | 1 | 5 | 1 | 1 | N |
| 10.032_5 | 3D Facial Feature Points | Z Coordinate | HCZ | M↑ | 1 | 5 | 1 | 1 | N |
| 10.033 | Feature Contours | | FEC | D | n/a | n/a | 0 | 1 | n/a |
| 10.033_0 | Feature Contours | Subfields: Repeating sets of information items | FEC_0 | M↑ | n/a | n/a | 1 | 12 | n/a |
| 10.033_1 | Feature Contours | Feature Contour Code | FCC | M↑ | 4 | 14 | 1 | 1 | A |
| 10.033_2 | Feature Contours | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 10.033_3 | Feature Contours | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 3 | NOP | N |
| 10.033_4 | Feature Contours | Vertical Point Offset | VPO | M↑ | 1 | 5 | 3 | NOP | N |
| 10.034 | IMAGE CAPTURE DATE RANGE ESTIMATE | | ICDR | O | 3 | 9 | 0 | 1 | AN |
| 10.038 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 10.039 | Type-10 Reference Number | | T10 | D | 1 | 3 | 0 | 1 | AN |
| 10.04 | NCIC SMT Code | | SMT | D | n/a | n/a | 0 | 1 | n/a |
| 10.040_0 | NCIC SMT Code | Subfields: Repeating values | SMT_0 | M↑ | 3 | 10 | 1 | 3 | AS |
| 10.041 | SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC | | SMS | D | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 10.041_1 | SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC | Height | HGT | M↑ | 1 | 3 | 1 | 1 | N |
| 10.041_2 | SMT SIZE OR SIZE OF INJURY OR IDENTIFYING CHARACTERISTIC | Width | WID | M↑ | 1 | 3 | 1 | 1 | N |
| 10.042 | SMT Descriptors | | SMD | M↑ | n/a | n/a | 0 | 1 | n/a |
| 10.042_0 | SMT Descriptors | Subfields: Repeating values | SMD_0 | M↑ | n/a | n/a | 1 | 9 | n/a |
| 10.042_1 | SMT Descriptors | SMT code indicator | SMI | M↑ | 3 | 8 | 1 | 1 | A |
| 10.042_2 | SMT Descriptors | Tattoo Class | TAC | D | 4 | 8 | 0 | 1 | A |
| 10.042_3 | SMT Descriptors | Tattoo Subclass | TSC | D | 3 | 11 | 0 | 1 | A |
| 10.042_4 | SMT Descriptors | Tattoo Description | TDS | D | 1 | 256 | 0 | 1 | U |
| 10.043 | Tattoo Color | | COL | D | n/a | n/a | 0 | 1 | D |
| 10.043_0 | Tattoo Color | Subfields: repeating values in the same order as those of SMD | COL_0 | M↑ | n/a | n/a | 1 | 9 | n/a |
| 10.043_1 | Tattoo Color | Tattoo Color Code 1 | TC1 | O↑ | 3 | 7 | 1 | 1 | A |
| 10.043_2 | Tattoo Color | Tattoo Color Code 2 | TC2 | O↑ | 3 | 7 | 0 | 1 | A |
| 10.043_3 | Tattoo Color | Tattoo Color Code 3 | TC3 | O↑ | 3 | 7 | 0 | 1 | A |
| 10.043_4 | Tattoo Color | Tattoo Color Code 4 | TC4 | O↑ | 3 | 7 | 0 | 1 | A |
| 10.043_5 | Tattoo Color | Tattoo Color Code 5 | TC5 | O↑ | 3 | 7 | 0 | 1 | A |
| 10.043_6 | Tattoo Color | Tattoo Color Code 6 | TC6 | O↑ | 3 | 7 | 0 | 1 | A |
| 10.044 | Image Transform | | ITX | O | n/a | n/a | 0 | 1 | n/a |
| 10.044_0 | Image Transform | Subfields: Repeating values | ITX_0 | M↑ | 3 | 11 | 1 | 18 | A |
| 10.045 | Occlusions | | OCC | D | n/a | n/a | 0 | 1 | n/a |
| 10.045_0 | Occlusions | Subfields: Repeating values | OCC_0 | M↑ | n/a | n/a | 1 | 16 | n/a |
| 10.045_1 | Occlusions | Occlusion Opacity | OCY | M↑ | 1 | 1 | 1 | 1 | A |
| 10.045_2 | Occlusions | Occlusion Type | OCT | M↑ | 1 | 1 | 1 | 1 | N |
| 10.045_3 | Occlusions | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 10.045_4 | Occlusions | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 3 | NOP | N |
| 10.045_5 | Occlusions | Vertical Point Offset | VPO | M↑ | 1 | 5 | 3 | NOP | N |
| 10.046 | Image Subject Condition | | SUB | D | n/a | n/a | 0 | 1 | n/a |
| 10.046_1 | Image Subject Condition | Subject Status Code | SSC | M↑ | 1 | 1 | 1 | 1 | A |
| 10.046_2 | Image Subject Condition | Subject Body Status Code | SBSC | M↑ | 1 | 1 | 0 | 1 | N |
| 10.046_3 | Image Subject Condition | Subject Body Class Code | SBCC | M↑ | 1 | 1 | 0 | 1 | N |
| 10.047 | Capture Organization Name | | CON | O | 1 | Unlimited | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 10.048 | Suspected Patterned Injury Detail | | PID | O | n/a | n/a | 0 | 1 | n/a |
| 10.048_0 | Suspected Patterned Injury Detail | Subfields: Repeating sets of information items | PID_0 | M↑ | n/a | n/a | 1 | Unlimited | n/a |
| 10.048_1 | Suspected Patterned Injury Detail | ADA Reference Code List | PARC | O↑ | 1 | 30 | 0 | 1 | NS |
| 10.048_2 | Suspected Patterned Injury Detail | Additional Descriptive Text | PADT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049 | Cheilioscopic Image Description | | CID | D | n/a | n/a | 0 | 1 | n/a |
| 10.049_1 | Cheilioscopic Image Description | Lip Print Width | LPW | O↑ | 1 | 4 | 0 | 1 | N |
| 10.049_2 | Cheilioscopic Image Description | Lip Print Height | LPH | O↑ | 1 | 4 | 0 | 1 | N |
| 10.049_3 | Cheilioscopic Image Description | Philtrum Width | PHW | O↑ | 1 | 4 | 0 | 1 | N |
| 10.049_4 | Cheilioscopic Image Description | Philtrum Height | PHH | O↑ | 1 | 4 | 0 | 1 | N |
| 10.049_5 | Cheilioscopic Image Description | Upper Lip Characterization List | ULCL | O↑ | 1 | 2 | 0 | 1 | AS |
| 10.049_6 | Cheilioscopic Image Description | Lower Lip Characterization List | LLCL | O↑ | 1 | 2 | 0 | 1 | AS |
| 10.049_7 | Cheilioscopic Image Description | Lip Contact Line Descriptor | LCLD | O↑ | 1 | 1 | 0 | 1 | A |
| 10.049_8 | Cheilioscopic Image Description | Lip Print Characterization Text | LPCT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_9 | Cheilioscopic Image Description | Lip Print Pathologies and Peculiarities List | LPPL | O↑ | 1 | Unlimited | 0 | 1 | NS |
| 10.049_10 | Cheilioscopic Image Description | Lip Print Pathologies and Peculiarities Descriptive Text | LPPT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_11 | Cheilioscopic Image Description | Lip Print Surface List | LPSL | O↑ | 1 | Unlimited | 0 | 1 | NS |
| 10.049_12 | Cheilioscopic Image Description | Lip Print Surface Descriptive Text | LPST | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_13 | Cheilioscopic Image Description | Lip Print Medium Code | LPMC | O↑ | 1 | 1 | 0 | 1 | N |
| 10.049_14 | Cheilioscopic Image Description | Lip Print Medium Descriptive Text | LPMT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_15 | Cheilioscopic Image Description | Facial Hair Descriptive Text | FHDT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_16 | Cheilioscopic Image Description | Lip Print Position and Tension Text | LPDT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_17 | Cheilioscopic Image Description | Lip Print Additional Descriptive Text | LPAT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.049_18 | Cheilioscopic Image Description | Lip Print Comparison Descriptive Text | LPCD | O↑ | 1 | Unlimited | 0 | 1 | U |
| 10.05 | Dental Visual Image Data Information | | VID | O | n/a | n/a | 0 | 1 | n/a |
| 10.050_1 | Dental Visual Image Data Information | Visual Image View Code | VIVC | M↑ | 3 | 4 | 1 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 10.050_2 | Dental Visual Image Data Information | Visual Image Additional Descriptive Text | VIDT | D | 1 | Unlimited | 0 | 1 | U |
| 10.050_3 | Dental Visual Image Data Information | Visual Image Comparison Descriptive Text | VICD | D | 1 | Unlimited | 0 | 1 | U |
| 10.051 | Ruler or Scale Presence | | RSP | O | n/a | n/a | 0 | 1 | n/a |
| 10.051_1 | Ruler or Scale Presence | Ruler or Scale Units | RSU | D | 2 | 4 | 0 | 1 | A |
| 10.051_2 | Ruler or Scale Presence | Ruler or Scale Make | RSM | D | 1 | 50 | 0 | 1 | U |
| 10.051_3 | Ruler or Scale Presence | Ruler or Scale Model | RSO | O | 1 | 50 | 0 | 1 | U |
| 10.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 10.902_0 | Annotated Information | Subfields: Repeating sets of information items | ANN | M↑ | n/a | n/a | 1 | Unlimited | n/a |
| 10.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | Dependent on encoding | Dependent on encoding | 1 | 1 | AN |
| 10.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 10.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 10.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | Unlimited | 1 | 1 | U |
| 10.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 10.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 0 | 1 | n/a |
| 10.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 1 | 1 | U |
| 10.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 1 | 1 | U |
| 10.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 1 | 1 | U |
| 10.992 | Biometric Cross Reference Identification | | T2C | O | 1 | 2 | 0 | 1 | N |
| 10.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 10.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 10.995_0 | Associated Context | Subfields: Repeating sets of information items | ASC_0 | M↑ | n/a | n/a | 1 | 255 | n/a |
| 10.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | AN |
| 10.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | N |
| 10.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 10.997 | Source Representation | | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 10.997_0 | Source Representation | | SOR_0 | M↑ | n/a | n/a | 1 | 255 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 10.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 10.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | AN |
| 10.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 10.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | Dependent on encoding | Dependent on encoding | 0 | 1 | AN |
| 10.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 10.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 10.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 10.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 10.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 10.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 10.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | D | 1 | 8 | 0 | 1 | NS |
| 10.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | D | 3 | 6 | 0 | 1 | AN |
| 10.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 2 | 3 | 0 | 1 | AN |
| 10.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 10.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 10.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 10.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 0 | 1 | U |
| 10.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 10.999 | Body Part Image | | DATA | M | 1 | Unlimited | 1 | 1 | B |
| 11.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------------|------------------------------------|----------|-------|-----------|-----------|-----------|-----------|--|
| 11.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | integer |
| 11.003 | Audio Object Descriptor Code | | AOD | M | 1 | 1 | 1 | 1 | T = integer, X = Audio Object Descriptor Code Type |
| 11.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | none |
| 11.005 | Voice Recording Source Organization | | VRSO | O | n/a | n/a | 0 | 1 | n/a |
| 11.005_1 | Voice Recording Source Organization | Source Organization Type Code | STC | M↑ | 1 | 1 | 1 | 1 | A |
| 11.005_2 | Voice Recording Source Organization | Source Organization Name | SON | O↑ | 1 | 400 | 0 | 1 | U |
| 11.005_3 | Voice Recording Source Organization | Point Of Contact | POC | O↑ | 1 | 200 | 0 | 1 | U |
| 11.005_4 | Voice Recording Source Organization | Record Setting Detail Country Code | CSC | O↑ | 2 | 3 | 0 | 1 | AN |
| 11.006 | Voice Recording Content Descriptor | | VRC | O | n/a | n/a | 0 | 1 | n/a |
| 11.006_1 | Voice Recording Content Descriptor | Assigned Voice Indicator | AVI | M↑ | 1 | 1 | 1 | 1 | A |
| 11.006_2 | Voice Recording Content Descriptor | Speaker Plurality Code | SPC | O↑ | 1 | 1 | 0 | 1 | A |
| 11.006_3 | Voice Recording Content Descriptor | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.007 | Audio Recording Device | | AREC | O | n/a | n/a | 0 | 1 | n/a |
| 11.007_1 | Audio Recording Device | Recording Device Descriptive Text | RDD | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.007_2 | Audio Recording Device | Recording Device Make | MAK | O↑ | 1 | 50 | 0 | 1 | U |
| 11.007_3 | Audio Recording Device | Recording Device Model | MOD | O↑ | 1 | 50 | 0 | 1 | U |
| 11.007_4 | Audio Recording Device | Recording Device Serial Number | SER | O↑ | 1 | 50 | 0 | 1 | U |
| 11.008 | Acquisition Source | | AQS | D | n/a | n/a | 0 | 1 | n/a |
| 11.008_1 | Acquisition Source | Acquisition Source Code | AQC | M↑ | 1 | 2 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--------------------------|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 11.008_2 | Acquisition Source | Analog To Digital Conversion Description | A2D | D | 1 | Unlimited | 0 | 1 | U |
| 11.008_3 | Acquisition Source | Contains Radio Transmission Format Description. | FDN | D | 1 | Unlimited | 0 | 1 | U |
| 11.008_4 | Acquisition Source | Contains Acquisition Special Characteristics. | AQSC | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.009 | Record Creation Date | Record Creation Date | RCD | M | Dependent on Encoding | Dependent on Encoding | 1 | 1 | AN |
| 11.01 | Total Recording Duration | Voice Recording Creation Date | VRD | O | Dependent on Encoding | Dependent on Encoding | 0 | 1 | AN |
| 11.011 | Voice Recording Date | Total Recording Duration | TRD | O | n/a | n/a | 0 | 1 | n/a |
| 11.011_1 | Voice Recording Date | Voice Recording Time | TIM | O↑ | 1 | 11 | 0 | 1 | N |
| 11.011_2 | Voice Recording Date | Compressed Bytes | CBY | O↑ | 1 | 14 | 0 | 1 | N |
| 11.011_3 | Voice Recording Date | Total Digital Samples | TSM | O↑ | 1 | 14 | 0 | 1 | N |
| 11.012 | Physical Media Object | | PMO | D | n/a | n/a | 0 | 1 | n/a |
| 11.012_1 | Physical Media Object | Media Type Description | MTD | M↑ | 1 | 300 | 1 | 1 | U |
| 11.012_2 | Physical Media Object | Recording Speed | RSP | O↑ | 1 | 9 | 0 | 1 | NS |
| 11.012_3 | Physical Media Object | Recording Speed Measurement Units Description Text | RSU | D | 1 | Unlimited | 0 | 1 | U |
| 11.012_4 | Physical Media Object | Equalization Description | EQD | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.012_5 | Physical Media Object | Track Count | TRC | O↑ | 1 | 4 | 0 | 1 | N |
| 11.012_6 | Physical Media Object | Speaker Track Number | STK | O↑ | 1 | 4 | 0 | 9999 | NS |
| 11.012_7 | Physical Media Object | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.013 | Container | | CONT | O | n/a | n/a | 0 | 1 | n/a |
| 11.013_1 | Container | Container Code | CONC | M↑ | 1 | 2 | 0 | 1 | N |
| 11.013_2 | Container | External Container Reference Code | ECON | D | 1 | 80 | 0 | 1 | U |
| 11.013_3 | Container | Comment | COM | D | 1 | Unlimited | 0 | 1 | U |
| 11.014 | Codec | | CDC | D | n/a | n/a | 0 | 1 | n/a |
| 11.014_1 | Codec | Codec Code | CODC | O↑ | 1 | 2 | 0 | 1 | N |
| 11.014_2 | Codec | Sampling Rate Number | SRTN | O↑ | 1 | 9 | 0 | 1 | N |
| 11.014_3 | Codec | Bit Depth Count | BITD | O↑ | 1 | 4 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------|--|----------|-------|-----------|-----------|-----------|------------|------------|
| 11.014_4 | Codec | Endian Code | ENDC | O↑ | 1 | 1 | 0 | 1 | N |
| 11.014_5 | Codec | Numeric Format | NFMT | O↑ | 1 | 5 | 0 | 1 | AN |
| 11.014_6 | Codec | Channel Count | CHC | O↑ | 1 | 4 | 0 | 1 | N |
| 11.014_7 | Codec | External Codec Reference Code | ECOD | D | 1 | 80 | 0 | 1 | U |
| 11.014_8 | Codec | Comment | COM | D | 1 | Unlimited | 0 | 1 | U |
| 11.021 | Redaction | | RED | O | n/a | n/a | 0 | 1 | n/a |
| 11.021_1 | Redaction | Redaction Indicator | RDI | M↑ | 0 | 1 | 1 | 1 | N |
| 11.021_2 | Redaction | Redaction Authority Organization Name | RDA | D | 1 | 300 | 0 | 1 | U |
| 11.021_3 | Redaction | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.022 | Redaction | | RDD | O | n/a | n/a | 0 | 1 | n/a |
| 11.022_0 | Redaction | Subfields: Repeating Sets Of Information Items | RDD_0 | M↑ | n/a | n/a | 0 | 6000
00 | n/a |
| 11.022_1 | Redaction Diary | Segment Identifier | SID | M | 1 | 6 | 1 | 1 | N |
| 11.022_2 | Redaction Diary | Track And Channel Number List | TRK | D | 1 | 4 | 0 | 9999 | NS |
| 11.022_3 | Redaction Diary | Relative Start Time | RST | M↑ | 1 | Unlimited | 1 | 1 | N |
| 11.022_4 | Redaction Diary | Relative End Time | RET | M↑ | 1 | Unlimited | 1 | 1 | N |
| 11.022_5 | Redaction Diary | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.023 | Redaction Diary | | DIS | O | n/a | n/a | 0 | 1 | n/a |
| 11.023_1 | Discontinuities | Discontinuity Indicator | DCI | M↑ | 1 | 1 | 1 | 1 | N |
| 11.023_2 | Discontinuities | Cutting Authority Organization Name | CTA | D | 1 | 300 | 0 | 1 | U |
| 11.023_3 | Discontinuities | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.024 | Discontinuities | Discontinuities Diary | DCD | O | n/a | n/a | 0 | 1 | n/a |
| 11.024_0 | Discontinuities | Subfields: Repeating Sets Of Information Items | DCD_0 | M↑ | n/a | n/a | 0 | 6000
00 | n/a |
| 11.024_1 | Discontinuities Diary | Segment Identifier | SID | M↑ | 1 | 6 | 1 | 1 | N |
| 11.024_2 | Discontinuities Diary | Track And Channel Number List | TRK | M↑ | 1 | 4 | 0 | 9999 | NS |
| 11.024_3 | Discontinuities Diary | Relative Start Time | RST | M | 1 | Unlimited | 1 | 1 | N |
| 11.024_4 | Discontinuities Diary | Relative End Time | RET | M↑ | 1 | Unlimited | 1 | 1 | N |
| 11.024_5 | Discontinuities Diary | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.025 | Vocal Content | | VOC | O | n/a | n/a | 0 | 1 | n/a |
| 11.025_1 | Vocal Content | Diarization Indicator | DII | M↑ | 1 | 1 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---------------------|--|----------|-------|-----------------------|-----------------------|-----------|-----------|-----------------------|
| 11.025_2 | Vocal Content | Diarization Authority Organization Name | DAU | O↑ | 1 | 300 | 0 | 1 | U |
| 11.025_3 | Vocal Content | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.026 | Vocal Content | | VCD | O | n/a | n/a | 0 | 1 | n/a |
| 11.026_0 | Vocal Content | Subfields: Repeating Sets Of Information Items | VCD_0 | M↑ | n/a | n/a | 0 | 600000 | n/a |
| 11.026_1 | Vocal Content Diary | Segment Identifier | SID | M↑ | 1 | 6 | 1 | 1 | N |
| 11.026_2 | Vocal Content Diary | Track And Channel Number List | TRK | D | 1 | 4 | 0 | 9999 | NS |
| 11.026_3 | Vocal Content Diary | Relative Start Time | RST | M↑ | 1 | 11 | 1 | 1 | N |
| 11.026_4 | Vocal Content Diary | Relative End Time | RET | M↑ | 1 | Unlimited | 1 | 1 | N |
| 11.026_5 | Vocal Content Diary | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.026_6 | Vocal Content Diary | Tagged Data | TDT | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.026_7 | Vocal Content Diary | Tagged Start Time | TST | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.026_8 | Vocal Content Diary | Tagged End Time | TET | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.026_9 | Vocal Content Diary | Original Recording Date | ORD | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.026_10 | Vocal Content Diary | Segment Recording Start Time | SRT | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---------------------|--|----------|-------|-----------------------|-----------------------|-----------|-----------|-----------------------|
| 11.026_11 | Vocal Content Diary | Segment Recording End Time | END | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.026_12 | Vocal Content Diary | Time Source Description Text | TMD | O↑ | 1 | 300 | 0 | 1 | U |
| 11.026_13 | Vocal Content Diary | Timing Comments | TCOM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.027 | Vocal Content Diary | Other Content | OCOM | O↑ | n/a | n/a | 0 | 1 | n/a |
| 11.027_1 | Other Content | Diarization Indicator | DII | M↑ | 1 | 1 | 1 | 1 | N |
| 11.027_2 | Other Content | Diarization Authority | DAU | D | 1 | 300 | 0 | 1 | U |
| 11.027_3 | Other Content | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.028 | Other Content | | OCD | O | n/a | n/a | 0 | 1 | n/a |
| 11.028_0 | Other Content | Subfields: Repeating Sets Of Information Items | OCD_0 | | n/a | n/a | 0 | 600000 | n/a |
| 11.028_1 | Other Content | Segment Identifier | SID | M | 1 | 6 | 1 | 1 | N |
| 11.028_2 | Other Content | Track And Channel Number List | TRK | D | 1 | 4 | 0 | 9999 | NS |
| 11.028_3 | Other Content | Relative Start Time | RST | M↑ | 1 | 11 | 1 | 1 | N |
| 11.028_4 | Other Content | Relative End Time | RET | M↑ | 1 | Unlimited | 1 | 1 | N |
| 11.028_5 | Other Content | Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.028_6 | Other Content | Tagged Data | TDT | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.028_7 | Other Content | Tagged Start Time | TST | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.028_8 | Other Content | Tagged End Time | TET | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|---|----------|-------|-----------------------|-----------------------|-----------|-----------|-----------------------|
| 11.028_9 | Other Content | Original Recording Date | ORD | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.028_10 | Other Content | Segment Recording Start Time | SRT | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.028_11 | Other Content | Segment Recording End Time | END | O↑ | Dependent on Encoding | Dependent on Encoding | 0 | 1 | Dependent on Encoding |
| 11.028_12 | Other Content | Time Source Description Text | TMD | O↑ | 1 | 300 | 0 | 1 | U |
| 11.028_13 | Other Content | Timing Comments | TCOM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.032 | Vocal Segment Geographical Information | | SGEO | D | n/a | n/a | 0 | 1 | n/a |
| 11.032_0 | Vocal Segment Geographical Information | Subfield: Repeating Sets of Information Items | SGEO_0 | M↑ | n/a | n/a | 0 | 1 | n/a |
| 11.032_01 | Vocal Segment Geographical Information | Segment Identifier List | SIL | M↑ | 1 | 6 | 1 | 600000 | NS |
| 11.032_02 | Vocal Segment Geographical Information | Segment Cell Phone Tower Code | SCT | O↑ | 1 | 100 | 0 | 1 | U |
| 11.032_03 | Vocal Segment Geographical Information | Latitude Degree Value | LTD | D | 1 | 9 | 1 | 1 | NS |
| 11.032_04 | Vocal Segment Geographical Information | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 11.032_05 | Vocal Segment Geographical Information | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | NS |
| 11.032_06 | Vocal Segment Geographical Information | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 11.032_07 | Vocal Segment Geographical Information | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 11.032_08 | Vocal Segment Geographical Information | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 11.032_09 | Vocal Segment Geographical Information | Elevation | ELE | D | 1 | 8 | 0 | 1 | NS |
| 11.032_10 | Vocal Segment Geographical Information | Geodetic Datum Code | GDC | D | 3 | 6 | 0 | 1 | AN |
| 11.032_11 | Vocal Segment Geographical Information | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 2 | 3 | 0 | 1 | AN |
| 11.032_12 | Vocal Segment Geographical Information | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 11.032_13 | Vocal Segment Geographical Information | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 11.032_14 | Vocal Segment Geographical Information | Geographic Reference Text | GRT | O | 1 | 150 | 1 | 1 | U |
| 11.032_15 | Vocal Segment Geographical Information | Geographic Coordinate Other System Identifier (or Landmark) | OSI | O | 1 | 10 | 1 | 1 | U |
| 11.032_16 | Vocal Segment Geographical Information | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 11.033 | Vocal Segment Quality Values | | SQV | D | n/a | n/a | 0 | 1 | n/a |
| 11.033_0 | Vocal Segment Quality Values | Subfield: Repeating Sets of Information Items | SQV_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 11.033_1 | Vocal Segment | Segment Identifier List | SIL | M↑ | 1 | 6 | 0 | 600000 | NS |
| 11.033_2 | Vocal Segment Quality Values | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 11.033_3 | Vocal Segment Quality Values | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 11.033_4 | Vocal Segment Quality Values | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 11.033_5 | Vocal Segment Quality Values | Comments | COM | D | 0 | Unlimited | 0 | 1 | U |
| 11.034 | Vocal Collision Identifier | | VCI | D | n/a | n/a | 0 | 1 | N |
| 11.034_0 | Vocal Collision Identifier | Subfield: Repeating Sets Of Information Items | VCI_0 | M↑ | 1 | 6 | 0 | 600000 | N |
| 11.035 | Vocal Segment Processing Priority | | PPY | M | n/a | n/a | 0 | 1 | n/a |
| 11.035_0 | Vocal Segment Processing Priority | Subfield: Repeating Sets Of Information Items | PPY_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 11.035_1 | Vocal Segment Processing Priority | Segment Identifier List | SIL | M↑ | 1 | 6 | 0 | 600000 | NS |
| 11.035_2 | Vocal Segment Processing Priority | Priority | PTY | M↑ | 1 | 1 | 1 | 1 | N |
| 11.036 | Vocal Segment Processing Priority | | VSCT | D | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---------------------------------------|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 11.036_0 | Vocal Segment Processing Priority | Subfield: Repeating Sets Of Information Items | VSCT_0 | M↑ | n/a | n/a | 0 | 600000 | n/a |
| 11.036_1 | Vocal Segment Processing Priority | Segment Identifier List | SIL | M↑ | 1 | 6 | 0 | 600000 | NS |
| 11.036_2 | Vocal Segment Processing Priority | Transcript Text | TRN | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.036_3 | Vocal Segment Processing Priority | Transcript Language | LNG | O↑ | 3 | 3 | 0 | 1 | A |
| 11.036_4 | Vocal Segment Processing Priority | Phonetic Transcript Text | PTT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.036_5 | Vocal Segment Processing Priority | Phonetic Transcript Convention | PTC | O↑ | 1 | 100 | 0 | 1 | U |
| 11.036_6 | Vocal Segment Processing Priority | Translation Text | TLT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.036_7 | Vocal Segment Processing Priority | Translation Language | TLG | O↑ | 3 | 3 | 0 | 1 | A |
| 11.036_8 | Vocal Segment Processing Priority | Segment Content Comment | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.036_9 | Vocal Segment Processing Priority | Transcript Authority Comment Text | TAC | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.037 | Vocal Segment Speaker Characteristics | | SCC | D | n/a | n/a | 0 | 1 | n/a |
| 11.037_0 | Vocal Segment Speaker Characteristics | Subfield: Repeating Sets Of Information Items | SCC_0 | M↑ | n/a | n/a | 0 | 600000 | n/a |
| 11.037_1 | Vocal Segment Speaker Characteristics | Segment Identifier List | SIL | M↑ | 1 | 6 | 0 | 600000 | NS |
| 11.037_2 | Vocal Segment Speaker Characteristics | Speaker List | SPL | O↑ | 1 | 4 | 0 | 9999 | U |
| 11.037_3 | Vocal Segment Speaker Characteristics | Type-2 Record Cross Reference | T2C | O↑ | 1 | 2 | 0 | 98 | NS |
| 11.037_4 | Vocal Segment Speaker Characteristics | Impairment Level Number | IMP | O↑ | 1 | 1 | 0 | 1 | N |
| 11.037_5 | Vocal Segment Speaker Characteristics | Dominant Spoken | DSL | O↑ | 3 | 3 | 0 | 1 | A |
| 11.037_6 | Vocal Segment Speaker Characteristics | Language Code | LPS | O↑ | 1 | 1 | 0 | 1 | N |
| 11.037_7 | Vocal Segment Speaker Characteristics | Speech Style Code | STY | O↑ | 1 | 2 | 0 | 1 | N |
| 11.037_8 | Vocal Segment Speaker Characteristics | Intelligibility Scale Code | INT | O↑ | 0 | 1 | 0 | 1 | N |
| 11.037_9 | Vocal Segment Speaker Characteristics | Familiarity Degree Code | FDC | O↑ | 0 | 1 | 0 | 1 | N |
| 11.037_10 | Vocal Segment Speaker Characteristics | Health Comment | HCM | O↑ | 0 | Unlimited | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---------------------------------------|--|----------|-------|-----------------------|-----------------------|-----------|-----------|-------------------|
| 11.037_11 | Vocal Segment Speaker Characteristics | Emotional State Code | EMC | O↑ | 1 | 2 | 0 | 1 | N |
| 11.037_12 | Vocal Segment Speaker Characteristics | Vocal Effort Scale Number | VES | O↑ | 1 | 1 | 0 | 1 | N |
| 11.037_13 | Vocal Segment Speaker Characteristics | Vocal Style Code | VSC | O↑ | 1 | 2 | 0 | 1 | N |
| 11.037_14 | Vocal Segment Speaker Characteristics | Recording Awareness Indicator | RAI | O↑ | 1 | 1 | 0 | 1 | N |
| 11.037_15 | Vocal Segment Speaker Characteristics | Script Text | SCR | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.037_16 | Vocal Segment Speaker Characteristics | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.038 | Vocal Segment Channel | | SCH | D | n/a | n/a | 0 | 1 | n/a |
| 11.038_0 | Vocal Segment Channel | Subfield: Repeating Sets Of Information Items | SCH_0 | M↑ | n/a | n/a | 0 | 6000 00 | n/a |
| 11.038_1 | Vocal Segment Channel | Segment Identifier List | SIL | M↑ | 1 | 6 | 1 | 6000 00 | NS |
| 11.038_2 | Vocal Segment Channel | Audio Capture Device Code | ACD | O↑ | 1 | 2 | 0 | 1 | N |
| 11.038_3 | Vocal Segment Channel | Microphone Type Code | MTC | O↑ | 1 | 1 | 0 | 1 | N |
| 11.038_4 | Vocal Segment Channel | Capture Environment Description Text | ENV | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.038_5 | Vocal Segment Channel | Transducer Distance | DST | O↑ | 1 | 5 | 0 | 1 | N |
| 11.038_6 | Vocal Segment Channel | Acquisition Source Code | AQC | O↑ | 1 | 2 | 0 | 1 | N |
| 11.038_7 | Vocal Segment Channel | Voice Modification Description Text | VMT | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.038_8 | Vocal Segment Channel | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.051 | Comments | | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 11.902 | Annotation Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 11.902_0 | Annotated Information | Subfields: Repeating Sets Of Information Items | ANN_0 | D | n/a | n/a | 0 | * | n/a |
| 11.902_1 | Annotation Information | Greenwich Mean Time | GMT | M↑ | dependent on encoding | dependent on encoding | 1 | 1 | encoding specific |
| 11.902_2 | Annotation Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------------|--|----------|-------|-------------------------|-------------------------|-----------|-----------|------------|
| 11.902_3 | Annotation Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 11.902_4 | Annotation Information | Process Description | PRO | M↑ | 1 | Unlimited | 1 | 1 | U |
| 11.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 11.994 | External Reference File | | EFR | D | 1 | 200 | 0 | 1 | U |
| 11.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 255 | n/a |
| 11.995_0 | Associated Context | Subfields: Repeating Sets Of Information Items | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 11.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | N |
| 11.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | N |
| 11.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 11.997 | Source Representation | | SOR | O | 64 | 64 | 0 | 255 | H |
| 11.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 11.999 | Data | Voice Data | DATA | D | 1 | Unlimited | 0 | 1 | Base64 |
| 13.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 13.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 13.003 | Impression Type | | IMP | M | 1 | 2 | 1 | 1 | N |
| 13.004 | Source Agency | | SRC | M | 1 | * | 1 | 1 | U |
| 13.005 | Latent Capture Date | | LCD | M | Dependent upon encoding | Dependent upon encoding | 1 | 1 | N |
| 13.006 | Horizontal Line Length | | HLL | M | 2 | 5 | 1 | 1 | N |
| 13.007 | Vertical Line Length | | VLL | M | 2 | 5 | 1 | 1 | N |
| 13.008 | Scale Units | | SLC | M | 1 | 1 | 1 | 1 | N |
| 13.009 | Transmitted Horizontal Pixel Scale | | THPS | M | 1 | 5 | 1 | 1 | N |
| 13.01 | Transmitted Vertical Pixel Scale | | TVPS | M | 1 | 5 | 1 | 1 | N |
| 13.011 | Compression Algorithm | | CGA | M | 3 | 5 | 1 | 1 | AN |
| 13.012 | Bits Per Pixel | | BPX | M | 1 | 2 | 1 | 1 | N |
| 13.013 | Friction Ridge Generalized Position | | FGP | M | n/a | n/a | 0 | 1 | N |
| 13.013_0 | Friction Ridge Generalized Position | Subfield: Repeating Sets Of Information Items | FGP_0 | M↑ | 1 | 2 | 1 | 6 | N |
| 13.014 | Search Position Descriptors | | SPD | D | n/a | n/a | 0 | 1 | n/a |
| 13.014_0 | Search Position Descriptors | Subfield: Repeating Sets Of Information Items | SPD_0 | M↑ | n/a | n/a | 1 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--------------------------------|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 13.014_1 | Search Position Descriptors | Probable Decimal Finger Position Code | PDF | M↑ | 1 | 2 | 0 | 9 | N |
| 13.014_2 | Search Position Descriptors | Finger Image Code | FIC | M↑ | 3 | 3 | 0 | 9 | AN |
| 13.015 | Print Position Coordinates | | PPC | D | n/a | n/a | 0 | 1 | n/a |
| 13.015_0 | | Subfield: Repeating Sets Of Information Items | PPC_0 | M↑ | n/a | n/a | 0 | 12 | n/a |
| 13.015_1 | Print Position Coordinates | Full Finger View | FVC | M↑ | 2 | 3 | 1 | 1 | AN |
| 13.015_2 | Print Position Coordinates | Location of Segment | LOS | M↑ | 2 | 3 | 1 | 1 | AN |
| 13.015_3 | Print Position Coordinates | Left Horizontal Coordinate | LHC | M↑ | 1 | 5 | 1 | 1 | N |
| 13.015_4 | Print Position Coordinates | Right Horizontal Coordinate | RHC | M↑ | 1 | 5 | 1 | 1 | N |
| 13.015_5 | Print Position Coordinates | Top Vertical Coordinate | TVC | M↑ | 1 | 5 | 1 | 1 | N |
| 13.015_6 | Print Position Coordinates | Bottom Vertical Coordinate | BVC | M↑ | 1 | 5 | 1 | 1 | N |
| 13.016 | Scanned Horizontal Pixel Scale | | SHPS | O | 1 | 5 | 0 | 1 | N |
| 13.017 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 13.018 | Ruler or Scale Presence | | RSP | O | n/a | n/a | 0 | 1 | n/a |
| 13.018_1 | Ruler or Scale Presence | Ruler or Scale Units | RSU | D | 2 | 4 | 0 | 1 | A |
| 13.018_2 | Ruler or Scale Presence | Ruler or Scale Make | RSM | D | 1 | 50 | 0 | 1 | U |
| 13.018_3 | Ruler or Scale Presence | Ruler or Scale Model | RSO | D | 1 | 50 | 0 | 1 | U |
| 13.018_4 | Ruler or Scale Presence | Standard Fingerprint Form Number | RSF | D | 1 | 99 | 0 | 1 | U |
| 13.019 | Resolution Method | | REM | O | n/a | n/a | 0 | 1 | n/a |
| 13.019_1 | Resolution Method | Means of Determining Resolution | MDR | M↑ | 1 | 9 | 0 | 1 | AS |
| 13.019_2 | Resolution Method | Known Scale Length | KSL | D | 1 | 6 | 0 | 1 | NS |
| 13.019_3 | Resolution Method | Known Scale Units | KSU | D | 2 | 2 | 0 | 1 | A |
| 13.019_4 | Resolution Method | Known Scale X Coordinate for Point A | SXA | D | 1 | 5 | 0 | 1 | N |
| 13.019_5 | Resolution Method | Known Scale Y Coordinate for Point A | SYA | D | 1 | 5 | 0 | 1 | N |
| 13.019_6 | Resolution Method | Known Scale X Coordinate for Point B | SXB | D | 1 | 5 | 0 | 1 | N |
| 13.019_7 | Resolution Method | Known Scale Y Coordinate for Point B | SYB | D | 1 | 5 | 0 | 1 | N |
| 13.019_8 | Resolution Method | Comment | COM | O↑ | 1 | 99 | 0 | 1 | U |
| 13.02 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---------------------------|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 13.024 | Latent Quality Metric | | LQM | O | n/a | n/a | 0 | 1 | n/a |
| 13.024_0 | Latent Quality Metric | | LQM_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 13.024_1 | Latent Quality Metric | Friction Ridge Metric Position | FRMP | M↑ | 1 | 2 | 1 | 1 | N |
| 13.024_2 | Latent Quality Metric | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 13.024_3 | Latent Quality Metric | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 13.024_4 | Latent Quality Metric | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 13.046 | Image Subject Condition | | SUB | O | n/a | n/a | 0 | 1 | n/a |
| 13.046_1 | Image Subject Condition | Subject Status Code | SSC | M↑ | 1 | 1 | 1 | 1 | A |
| 13.046_2 | Image Subject Condition | Subject Body Status Code | SBSC | D | 1 | 1 | 0 | 1 | N |
| 13.046_3 | Image Subject Condition | Subject Body Class Code | SBCC | D | 1 | 1 | 0 | 1 | N |
| 13.047 | Capture Organization Name | | CON | O | 1 | 1000 | 0 | 1 | U |
| 13.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 13.902_0 | Annotated Information | Subfield: Repeating Sets Of Information Items | ANN_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 13.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 13.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | * | 1 | 1 | U |
| 13.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 13.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 13.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 13.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 1 | 1 | n/a |
| 13.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 13.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 13.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 13.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 13.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 13.995_0 | Associated Context | | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 13.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | n/a |
| 13.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | n/a |
| 13.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 13.997 | Source Representation | | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 13.997_0 | Source Representation | | SOR_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 13.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|--------------|--------------|-----------|-----------|------------|
| 13.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | N |
| 13.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 13.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | 15 | 15 | 0 | 1 | AN |
| 13.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 13.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 13.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 13.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 13.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 13.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 13.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | O | 3 | 8 | 1 | 1 | NS |
| 13.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 2 | 6 | 0 | 1 | AN |
| 13.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 1 | 3 | 0 | 1 | AN |
| 13.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 13.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 13.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 13.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 0 | 1 | U |
| 13.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 1 | 1 | U |
| 13.999 | Latent Friction Ridge Image | | DATA | D | 1 | * | 0 | 1 | B |
| 14.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 14.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 14.003 | Impression Type | | IMP | M | 1 | 2 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------------|---|----------|-------|-------------------------|-------------------------|-----------|-----------|------------|
| 14.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 14.005 | Fingerprint Capture Date | | FCD | M | Dependent upon encoding | Dependent upon encoding | 1 | 1 | N |
| 14.006 | Horizontal Line Length | | HLL | D | 2 | 5 | 0 | 1 | N |
| 14.007 | Vertical Line Length | | VLL | D | 2 | 5 | 0 | 1 | N |
| 14.008 | Scale Units | | SLC | D | 1 | 1 | 0 | 1 | N |
| 14.009 | Transmitted Horizontal Pixel Scale | | THPS | D | 1 | 5 | 0 | 1 | N |
| 14.01 | Transmitted Vertical Pixel Scale | | TVPS | D | 1 | 5 | 0 | 1 | N |
| 14.011 | Compression Algorithm | | CGA | D | 3 | 5 | 0 | 1 | AN |
| 14.012 | Bits Per Pixel | | BPX | D | 1 | 2 | 1 | 1 | N |
| 14.013 | Friction Ridge Generalized Position | | FGP | M | n/a | n/a | 1 | 1 | N |
| 14.014 | Print Position Descriptors | | PPD | D | n/a | n/a | 0 | 1 | n/a |
| 14.014_1 | Print Position Descriptors | Decimal Finger Position Code | DFP | M↑ | 1 | 2 | 0 | 1 | N |
| 14.014_2 | Print Position Descriptors | Finger Image Code | FIC | M↑ | 3 | 3 | 0 | 1 | AN |
| 14.015 | Print Position Coordinates | | PPC | D | n/a | b | 0 | 1 | n/a |
| 14.015_0 | Print Position Coordinates | | PPC_0 | M↑ | n/a | n/a | 0 | 12 | n/a |
| 14.015_1 | Print Position Coordinates | Full Finger View | FVC | M↑ | 2 | 3 | 1 | 1 | AN |
| 14.015_2 | Print Position Coordinates | Location of Segment | LOS | M↑ | 2 | 3 | 1 | 1 | A |
| 14.015_3 | Print Position Coordinates | Left Horizontal Coordinate | LHC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.015_4 | Print Position Coordinates | Right Horizontal Coordinate | RHC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.015_5 | Print Position Coordinates | Top Vertical Coordinate | TVC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.015_6 | Print Position Coordinates | Bottom Vertical Coordinate | BVC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.016 | Scanned Horizontal Pixel Scale | | SHPS | O | 1 | 5 | 0 | 1 | N |
| 14.017 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 14.018 | Amputated or Bandaged | | AMP | O | n/a | n/a | 0 | 1 | n/a |
| 14.018_0 | Amputated or Bandaged | | AMP_0 | M↑ | n/a | n/a | 0 | 5 | n/a |
| 14.018_1 | Amputated or Bandaged | Friction Ridge Amputation or Bandage Position | FRAP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.018_2 | Amputated or Bandaged | Amputated or Bandaged Code | ABC | M↑ | 2 | 2 | 1 | 1 | A |
| 14.02 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 14.021 | Finger Segment Position(s) | | SEG | D | n/a | n/a | 0 | 1 | n/a |
| 14.021_0 | Finger Segment Position(s) | | SEG_0 | M↑ | n/a | n/a | 0 | 5 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------------------|---|----------|-------|-----------|-----------|-----------|-----------|------------|
| 14.021_1 | Finger Segment Position(s) | Friction Ridge Segment Position | FRSP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.021_2 | Finger Segment Position(s) | Left Horizontal Coordinate | LHC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.021_3 | Finger Segment Position(s) | Right Horizontal Coordinate | RHC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.021_4 | Finger Segment Position(s) | Top Vertical Coordinate | TVC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.021_5 | Finger Segment Position(s) | Bottom Vertical Coordinate | BVC | M↑ | 1 | 5 | 1 | 1 | N |
| 14.022 | NIST Quality Metric | | NQM | O | n/a | n/a | 0 | 1 | n/a |
| 14.022_0 | NIST Quality Metric | | NQM_0 | M↑ | n/a | n/a | 0 | 5 | n/a |
| 14.022_1 | NIST Quality Metric | Friction Ridge NIST Quality Position | FRNP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.022_2 | NIST Quality Metric | NIST Image Quality Score | IQS | M↑ | 1 | 3 | 1 | 1 | N |
| 14.023 | Segmentation Quality Metric | | SQM | O | n/a | n/a | 0 | 1 | n/a |
| 14.023_0 | Segmentation Quality Metric | | SQM_0 | M↑ | n/a | n/a | 0 | 5 | n/a |
| 14.023_1 | Segmentation Quality Metric | Friction Ridge Segment Quality Position | FRQP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.023_2 | Segmentation Quality Metric | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 14.023_3 | Segmentation Quality Metric | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 14.023_4 | Segmentation Quality Metric | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 14.024 | Fingerprint Quality Metric | | FQM | O | n/a | n/a | 0 | 1 | n/a |
| 14.024_0 | Fingerprint Quality Metric | | FQM_0 | M↑ | n/a | n/a | 0 | 5 | n/a |
| 14.024_1 | Fingerprint Quality Metric | Friction Ridge Metric Position | FRMP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.024_2 | Fingerprint Quality Metric | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 14.024_3 | Fingerprint Quality Metric | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 14.024_4 | Fingerprint Quality Metric | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 14.025 | Alternate Finger Segment Position | | ASEG | O | n/a | n/a | 0 | 1 | n/a |
| 14.025_0 | Alternate Finger Segment Position | | ASEG_0 | M↑ | n/a | n/a | 0 | 5 | n/a |
| 14.025_1 | Alternate Finger Segment Position | Friction Ridge Alternate Segment Position | FRAS | M↑ | 1 | 2 | 1 | 1 | N |
| 14.025_2 | Alternate Finger Segment Position | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 14.025_3 | Alternate Finger Segment Position | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 14.025_4 | Alternate Finger Segment Position | Vertical Point Offset | VPO | M↑ | 1 | 5 | 1 | 1 | N |
| 14.026 | Simultaneous Capture | | SCF | O | 1 | 3 | 0 | 1 | N |
| 14.027 | Stitched Image Flag | | SIF | D | 1 | 1 | 0 | 1 | A |
| 14.03 | Device Monitoring Mode | | DMM | O | 7 | 10 | 0 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|---|-------------------------------------|----------|-------|-----------|-----------|-----------|-----------|------------|
| 14.031 | Subject Acquisition Profile - Fingerprint | | FAP | O | 2 | 2 | 0 | 1 | N |
| 14.046 | Image Subject Condition | | SUB | O | n/a | n/a | 0 | 1 | n/a |
| 14.046_1 | Image Subject Condition | Subject Status Code | SSC | M↑ | 1 | 1 | 1 | 1 | A |
| 14.046_2 | Image Subject Condition | Subject Body Status Code | SBSC | D | 1 | 1 | 0 | 1 | N |
| 14.046_3 | Image Subject Condition | Subject Body Class Code | SBCC | D | 1 | 1 | 0 | 1 | N |
| 14.047 | Capture Organization Name | | CON | O | 1 | 1000 | 0 | 1 | U |
| 14.2 | Image Source Code | | ISC | O | 1 | 1 | 0 | 1 | N |
| 14.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 14.902_0 | Annotated Information | | ANN_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 14.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 14.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 14.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 14.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 14.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 14.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 1 | 1 | n/a |
| 14.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 14.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 14.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 14.993 | Source Agency Name | | SAN | O | 1 | 125 | 1 | 1 | U |
| 14.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 14.995_0 | Associated Context | | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 14.995_1 | Associated Context Number | | ACN | M↑ | 1 | 3 | 1 | 1 | N |
| 14.995_2 | Associated Context Number | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | n/a |
| 14.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 14.997 | Source Representation | | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 14.997_0 | Source Representation | | SOR_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 14.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 14.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | N |
| 14.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 1 | 1 | n/a |
| 14.998_1 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | 15 | 15 | 0 | 1 | AN |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 14.998_2 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 14.998_3 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 14.998_4 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 14.998_5 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 14.998_6 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 14.998_7 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 14.998_8 | Geographic Sample Acquisition Location | Elevation | ELE | O | 3 | 8 | 1 | 1 | NS |
| 14.998_9 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 2 | 6 | 0 | 1 | AN |
| 14.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 1 | 3 | 0 | 1 | AN |
| 14.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 14.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 14.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 14.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 1 | 1 | U |
| 14.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 14.999 | Fingerprint Image | | DATA | D | 1 | Unlimited | 0 | 1 | B |
| 15.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 15.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 15.003 | Impression Type | | IMP | M | 2 | 2 | 1 | 1 | N |
| 15.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 15.005 | Palmpoint Capture Date | | PCD | M | Dependent on encoding | Dependent on encoding | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 15.006 | Horizontal Line Length | | HLL | D | 2 | 5 | 0 | 1 | N |
| 15.007 | Vertical Line Length | | VLL | D | 2 | 5 | 0 | 1 | N |
| 15.008 | Scale Units | | SLC | D | 1 | 1 | 0 | 1 | N |
| 15.009 | Transmitted Horizontal Pixel Scale | | THPS | D | 1 | 5 | 0 | 1 | N |
| 15.01 | Transmitted Vertical Pixel Scale | | TVPS | D | 1 | 5 | 0 | 1 | N |
| 15.011 | Compression Algorithm | | CGA | D | 3 | 5 | 0 | 1 | AN |
| 15.012 | Bits Per Pixel | | BPX | D | 1 | 2 | 0 | 1 | N |
| 15.013 | Friction Ridge Generalized Position | | FGP | M | 2 | 2 | 1 | 1 | N |
| 15.016 | Scanned Horizontal Pixel Scale | | SHPS | O | 1 | 5 | 0 | 1 | N |
| 15.017 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 15.018 | Amputated or Bandaged | | AMP | O | n/a | n/a | 0 | 1 | n/a |
| 15.018_0 | Amputated or Bandaged | Subfields: Repeating sets of information items | AMP_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 15.018_1 | Amputated or Bandaged | Friction Ridge Amputation or Bandage Position | FRAP | M↑ | 1 | 1 | 1 | 1 | N |
| 15.018_2 | Amputated or Bandaged | Amputated or Bandaged Code | ABC | M↑ | 2 | 2 | 1 | 1 | A |
| 15.02 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 15.021 | Finger Segment Position | | SEG | D | n/a | n/a | 0 | 1 | n/a |
| 15.021_0 | Finger Segment Position | Subfields: Repeating sets of information items | SEG_0 | M↑ | n/a | n/a | 0 | 17 | n/a |
| 15.021_1 | Finger Segment Position | Friction Ridge Segment Position | FRSP | M↑ | 1 | 2 | 1 | 1 | N |
| 15.021_2 | Finger Segment Position | Bottom Vertical Coordinate Value | BVC | M↑ | 1 | 5 | 1 | 1 | N |
| 15.021_3 | Finger Segment Position | Left Horizontal Coordinate Value | LHC | M↑ | 1 | 5 | 1 | 1 | N |
| 15.021_4 | Finger Segment Position | Right Horizontal Coordinate Value | RHC | M↑ | 1 | 5 | 1 | 1 | N |
| 15.021_5 | Finger Segment Position | Top Vertical Coordinate Value | TVC | M↑ | 1 | 5 | 1 | 1 | N |
| 15.023 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 15.024 | Palmpoint Quality Metric | | PQM | M↑ | n/a | n/a | 0 | 1 | n/a |
| 15.024_0 | Palmpoint Quality Metric | | PQM_0 | M↑ | n/a | n/a | 0 | 9 | N |
| 15.024_1 | Palmpoint Quality Metric | Friction Ridge Metric Position | FRMP | M↑ | 1 | 2 | 1 | 1 | N |
| 15.024_2 | Palmpoint Quality Metric | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 15.024_3 | Palmpoint Quality Metric | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 15.024_4 | Palmpoint Quality Metric | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 15.03 | Device Monitoring Mode | | DMM | O | 7 | 10 | 0 | 1 | A |
| 15.046 | Image Subject Condition | | SUB | O | n/a | n/a | 0 | 1 | n/a |
| 15.046_1 | Image Subject Condition | Subject Status Code | SSC | M↑ | 1 | 1 | 1 | 1 | A |
| 15.046_2 | Image Subject Condition | Subject Body Status Code | SBSC | D | 1 | 1 | 0 | 1 | N |
| 15.046_3 | Image Subject Condition | Subject Body Class Code | SBCC | D | 1 | 1 | 0 | 1 | N |
| 15.047 | Capture Organization Name | | CON | O | 1 | 1000 | 0 | 1 | U |
| 15.2 | Image Source Code | | ISC | O | 0 | 2 | 0 | * | N |
| 15.902 | Annotated Information | | ANN | M↑ | n/a | n/a | 0 | 1 | n/a |
| 15.902_0 | Annotated Information | Subfields: Repeating sets of information items | ANN_0 | D | n/a | n/a | 1 | * | n/a |
| 15.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | dependent on encoding | dependent on encoding | 1 | 1 | AN |
| 15.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 15.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 15.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 0 | 1 | U |
| 15.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 15.904 | Make/Model/Serial Number | | MMS | O | 1 | Unlimited | 1 | 1 | n/a |
| 15.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 15.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 15.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 15.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 15.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 15.995_0 | Associated Context | | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 15.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | N |
| 15.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | N |
| 15.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 15.997 | Source Representation | Source Representation Number | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 15.997_0 | Source Representation | Source Representation Number | SOR_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 15.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 15.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | N |
| 15.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|---|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 15.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | dependent on encoding | dependent on encoding | 0 | 1 | AN |
| 15.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 1 | 1 | NS |
| 15.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 15.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 15.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 15.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 15.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 15.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | D | 1 | 8 | 0 | 1 | NS |
| 15.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | D | 3 | 6 | 0 | 1 | AN |
| 15.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 2 | 3 | 0 | 1 | AN |
| 15.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 15.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 15.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 1 | 1 | U |
| 15.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 1 | 1 | U |
| 15.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 15.999 | Palmprint Image | | DATA | D | 1 | Unlimited | 0 | 1 | B |
| n/a | Capture Device Firmware Version Number (Sunset) | | | n/a | n/a | n/a | n/a | n/a | ANS |
| n/a | Capture Time (Sunset) | | | n/a | n/a | n/a | n/a | n/a | AN |
| n/a | Digitization Time (Sunset) | | | n/a | n/a | n/a | n/a | n/a | AN |
| 15.201 | Capture Device Global Identifier (Sunset) | | DEV_GI | O | 16 | 16 | 0 | 1 | ANS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|------------------------------------|------------------------|----------|-------|-------------------|-------------------|-----------|-----------|-------------------|
| 17.001 | Record Header | | LEN | M | Encoding Specific | Encoding Specific | 1 | 1 | Encoding Specific |
| 17.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 17.003 | Eye Label | | ELR | M | 1 | 1 | 1 | 1 | N |
| 17.004 | Source Agency | | SRC | M | 1 | 1 | 1 | 1 | U |
| 17.005 | Iris Capture Date | | ICD | M | Encoding Specific | Encoding Specific | 1 | 1 | Encoding Specific |
| 17.006 | Horizontal Line Length | | HLL | D | 2 | 5 | 0 | 1 | N |
| 17.007 | Vertical Line Length | | VLL | D | 2 | 5 | 0 | 1 | N |
| 17.008 | Scale Units | | SLC | D | 1 | 1 | 0 | 1 | N |
| 17.009 | Transmitted Horizontal Pixel Scale | | THPS | D | 1 | 5 | 0 | 1 | N |
| 17.01 | Transmitted Vertical Pixel Scale | | TVPS | D | 1 | 5 | 0 | 1 | N |
| 17.011 | Compression Algorithm | | CGA | D | 3 | 4 | 0 | 1 | AN |
| 17.012 | Bits Per Pixel | | BPX | D | 1 | 2 | 0 | 1 | N |
| 17.013 | Color Space | | CSP | D | 3 | 4 | 0 | 1 | A |
| 17.014 | Rotation Angle of Eye | | RAE | O | 1 | 4 | 0 | 1 | H |
| 17.015 | Rotation Uncertainty | | RAU | D | 1 | 4 | 0 | 1 | H |
| 17.016 | Image Property Code | | IPC | O | n/a | n/a | 0 | 1 | n/a |
| 17.016_1 | Image Property Code | Horizontal Orientation | IHO | M↑ | 1 | 1 | 1 | 1 | N |
| 17.016_2 | Image Property Code | Vertical Orientation | IVO | M↑ | 1 | 1 | 1 | 1 | N |
| 17.016_3 | Image Property Code | Specific Scan Type | IST | M↑ | 1 | 1 | 1 | 1 | N |
| 17.017 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 17.019 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 1 | 1 | n/a |
| 17.019_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 17.019_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 17.019_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 17.02 | Eye Color | | ECL | O | 3 | 3 | 0 | 1 | A |
| 17.021 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 17.022 | Scanned Horizontal Pixel Scale | | SHPS | O | 1 | 5 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|------------------------------------|----------------------------------|----------|-------|-----------|-----------|-----------|-----------|------------|
| 17.023 | Scanned Vertical Pixel Scale | | SVPS | O | 1 | 5 | 0 | 1 | N |
| 17.024 | Image Quality Score | | IQS | O | n/a | n/a | 0 | 1 | n/a |
| 17.024 | Image Quality Score | | IQS_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 17.024_1 | Image Quality Score | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 17.024_2 | Image Quality Score | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 17.024_3 | Image Quality Score | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 17.025 | Effective Acquisition Spectrum | | EAS | O | 3 | 9 | 0 | 1 | A |
| 17.026 | Iris Diameter | | IRD | O | 2 | 4 | 0 | 1 | N |
| 17.027 | Specified Spectrum Value | | SSV | D | n/a | n/a | 0 | 1 | n/a |
| 17.027_1 | Specified Spectrum Value | Spectrum Lower Bound | LOW | M↑ | 3 | 4 | 1 | 1 | N |
| 17.027_2 | Specified Spectrum Value | Spectrum Upper Bound | HIG | M↑ | 3 | 4 | 1 | 1 | N |
| 17.028 | Damaged or Missing Eye | | DME | O | 2 | 2 | 0 | 1 | A |
| 17.03 | Device Monitoring Mode | | DMM | O | 7 | 10 | 0 | 1 | A |
| 17.031 | Subject Acquisition Profile - IRIS | | IAP | O | 2 | 2 | 0 | 1 | N |
| 17.032 | Iris Storage Format | | ISF | O | 1 | 1 | 0 | 1 | N |
| 17.033 | Iris Pupil Boundary | | IPB | O | n/a | n/a | 0 | 1 | n/a |
| 17.033_1 | Boundary Code | | BYC | M↑ | 1 | 1 | 1 | 1 | A |
| 17.033_2 | Iris Pupil Boundary | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 17.033_3 | Iris Pupil Boundary | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.033_4 | Iris Pupil Boundary | Vertical Point Offset | VPO | M↑ | 1 | 5 | 0 | 1 | N |
| 17.034 | Iris Sclera Boundary | | ISB | O | n/a | n/a | 0 | 1 | n/a |
| 17.034_1 | Iris Sclera Boundary | Boundary Code | BYC | M↑ | 1 | 1 | 1 | 1 | A |
| 17.034_2 | Iris Sclera Boundary | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 17.034_3 | Iris Sclera Boundary | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.034_4 | Iris Sclera Boundary | Vertical Point Offset | VPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.035 | Upper Eyelid Boundary | | UEB | O | n/a | n/a | 0 | 1 | n/a |
| 17.035_1 | Upper Eyelid Boundary | Boundary Code | BYC | M↑ | 1 | 1 | 1 | 1 | A |
| 17.035_2 | Upper Eyelid Boundary | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 17.035_3 | Upper Eyelid Boundary | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.035_4 | Upper Eyelid Boundary | Vertical Point Offset | VPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.036 | Lower Eyelid Boundary | | LEB | O | n/a | n/a | 0 | 1 | n/a |
| 17.036_1 | Lower Eyelid Boundary | Boundary Code | BYC | M↑ | 1 | 1 | 1 | 1 | A |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--------------------------|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 17.036_2 | Lower Eyelid Boundary | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 17.036_3 | Lower Eyelid Boundary | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.036_4 | Lower Eyelid Boundary | Vertical Point Offset | VPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.037 | Make/Model/Serial Number | Non-eyelid Occlusions | NEO | O | n/a | n/a | 0 | 1 | n/a |
| 17.037_0 | Make/Model/Serial Number | Subfields: Repeating sets of information items information items | NEO_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 17.037_1 | Non-eyelid Occlusions | Occlusion Opacity | OCY | M↑ | 1 | 1 | 1 | 1 | A |
| 17.037_2 | Non-eyelid Occlusions | Occlusion Type | OCT | M↑ | 1 | 1 | 1 | 1 | A |
| 17.037_3 | Non-eyelid Occlusions | Number of Points | NOP | M↑ | 1 | 2 | 1 | 1 | N |
| 17.037_4 | Non-eyelid Occlusions | Horizontal Point Offset | HPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.037_5 | Non-eyelid Occlusions | Vertical Point Offset | VPO | M↑ | 1 | 5 | 1 | 1 | N |
| 17.04 | Range | | RAN | O | 1 | 7 | 0 | 1 | N |
| 17.041 | Frontal Gaze | | GAZ | O | 1 | 2 | 0 | 1 | N |
| 17.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 17.902_0 | Annotated Information | Subfields: Repeating sets of information items | ANN_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 17.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | dependent on encoding | dependent on encoding | 1 | 1 | AN |
| 17.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 17.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 17.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 17.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 17.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 17.995_0 | Associated Context | Subfields: Repeating sets of information items | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 17.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | N |
| 17.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | N |
| 17.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 17.997 | Source Representation | | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 17.997_0 | Source Representation | Subfields: Repeating sets of information items | SOR_0 | M↑ | n/a | n/a | 0 | 255 | n/a |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 17.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 17.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | N |
| 17.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 17.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | dependent on encoding | dependent on encoding | 0 | 1 | AN |
| 17.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 1 | 1 | NS |
| 17.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 17.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 17.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 1 | 1 | NS |
| 17.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 17.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 17.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | D | 1 | 8 | 0 | 1 | NS |
| 17.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | D | 3 | 6 | 0 | 1 | AN |
| 17.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 2 | 3 | 0 | 1 | AN |
| 17.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 1 | 1 | N |
| 17.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 1 | 1 | N |
| 17.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 17.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 1 | 1 | U |
| 17.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 1 | 1 | U |
| 17.999 | Iris Image Data | | DATA | D | 1 | Unlimited | 0 | 1 | B |
| n/a | Capture Time | | | n/a | n/a | n/a | n/a | n/a | AN |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------------------|--|----------|-------|--------------|--------------|-----------|-----------|------------|
| n/a | Digitization Time | | | n/a | n/a | n/a | n/a | n/a | AN |
| 17.018 | Global Unique Identifier | | GUI | n/a | n/a | n/a | n/a | n/a | AN |
| 18.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 18.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 18.003 | DNA Laboratory Setting | | DLS | M | n/a | n/a | 1 | 1 | n/a |
| 18.003_1 | DNA Laboratory Setting | Unit Type | UTY | M | 1 | 1 | 0 | 1 | N |
| 18.003_2 | DNA Laboratory Setting | Lab Type | LTY | D | 1 | 1 | 0 | 1 | A |
| 18.003_3 | DNA Laboratory Setting | Accreditation Information | ACC | D | 1 | 35 | 0 | 4 | ANS |
| 18.003_4 | DNA Laboratory Setting | Name of the Organization | NOO | O | 1 | Unlimited | 0 | 1 | U |
| 18.003_5 | DNA Laboratory Setting | Point of Contact | POC | O | 1 | 200 | 0 | 1 | U |
| 18.003_6 | DNA Laboratory Setting | Code of Sending Country | CSC | O | 2 | 4 | 0 | 1 | AN |
| 18.003_7 | DNA Laboratory Setting | International Organization Name | ION | O | 1 | 100 | 0 | 1 | U |
| 18.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 18.005 | Number of Analysis Flag | | NAL | M | 1 | 1 | 1 | 1 | N |
| 18.006 | Sample Donor Information | | SDI | M | n/a | n/a | 1 | 1 | n/a |
| 18.006_1 | Sample Donor Information | DNA Sample Donor | DSD | M | 1 | 1 | 1 | 1 | N |
| 18.006_2 | Sample Donor Information | Gender ID | GID | O | 1 | 1 | 0 | 1 | A |
| 18.006_3 | Sample Donor Information | Date of Last Contact | DLC | O | 8 | 8 | 0 | 1 | N |
| 18.006_4 | Sample Donor Information | Donor Date of Birth | DOB | O | 8 | 8 | 0 | 1 | N |
| 18.006_5 | Sample Donor Information | Ethnic Group | EGP | O | 1 | 50 | 0 | 1 | U |
| 18.006_6 | Sample Donor Information | Dental Records Available | DRA | D | 1 | 1 | 0 | 1 | N |
| 18.006_7 | Sample Donor Information | Sample Collection Location Description | LLC | O | 1 | 4000 | 0 | 1 | U |
| 18.006_8 | Sample Donor Information | Sample Donor Status | SDS | O | 1 | 1 | 0 | 1 | N |
| 18.007 | Claimed Or Purported Relationship | | COPR | D | 1 | 1 | 0 | 1 | U |
| 18.008 | Validated Relationship | | VRS | D | 1 | 1 | 0 | 1 | N |
| 18.009 | Pedigree Information | | PED | O | n/a | n/a | 0 | 1 | n/a |
| 18.009_1 | Pedigree Information | Pedigree ID | PID | M↑ | 1 | 24 | 1 | 1 | U |
| 18.009_2 | Pedigree Information | Pedigree Member ID | PMI | M↑ | 1 | 6 | 1 | 1 | U |
| 18.009_3 | Pedigree Information | Pedigree Member Status | PMS | M↑ | 1 | 1 | 1 | 1 | A |
| 18.009_4 | Pedigree Information | Sample Identifier | SID | M↑ | 1 | 24 | 1 | 1 | AN |
| 18.009_5 | Pedigree Information | Father Identifier | FID | O↑ | 1 | 3 | 0 | 1 | N |
| 18.009_6 | Pedigree Information | Mother Identifier | MID | O↑ | 1 | 3 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|--|----------------------------|----------|-------|-----------|-----------|-----------|-----------|------------|
| 18.009_7 | Pedigree Information | Pedigree Comment | PCM | O↑ | 1 | 2000 | 0 | 1 | U |
| 18.01 | Sample Type | | STY | M | n/a | n/a | 1 | 1 | n/a |
| 18.010_1 | Sample Type | Sample Cellular Type | SCT | M | 1 | 2 | 1 | 1 | N |
| 18.010_2 | Sample Type | Sample Origin | SMO | O | 2 | 2 | 0 | 1 | A |
| 18.011 | Sample Typing Information | | STI | M | n/a | n/a | 1 | 1 | N |
| 18.011_0 | Sample Typing Information | | STI_0 | M | 1 | 1 | 1 | 5 | N |
| 18.012 | Sample Collection Method | | SCM | O | 1 | 255 | 0 | 1 | U |
| 18.013 | Sample Collection Date | | SCD | M | 15 | 15 | 1 | 1 | N |
| 18.014 | Profile Storage Date | | PSD | M | 15 | 15 | 1 | 1 | N |
| 18.015 | DNA Profile Data | | DPD | M | n/a | n/a | 1 | 1 | n/a |
| 18.015_1 | DNA Profile Data | Profile Type | PTP | M | 1 | 1 | 1 | 1 | N |
| 18.015_2 | DNA Profile Data | Result | RES | O | 1 | 2 | 0 | 1 | N |
| 18.015_3 | DNA Profile Data | Profile ID | PRF | M | 1 | 64 | 1 | 1 | U |
| 18.015_4 | DNA Profile Data | Supplemental Message | SUP | O | 1 | 100 | 0 | 1 | U |
| 18.015_5 | DNA Profile Data | DNA Profile Comment | DPC | O | 1 | 100 | 0 | 1 | U |
| 18.016 | Autosomal STR, X-STR and Y-STR Profile | | STR | D | n/a | n/a | 0 | 1 | n/a |
| 18.016_0 | Autosomal STR, X-STR and Y-STR Profile | | STR_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 18.016_1 | Autosomal STR, X-STR and Y-STR Profile | DNA STR Type | DST | M↑ | 1 | 1 | 1 | 1 | N |
| 18.016_2 | Autosomal STR, X-STR and Y-STR Profile | DNA Locus Reference | DLR | M↑ | 1 | 3 | 1 | 1 | N |
| 18.016_3 | Autosomal STR, X-STR and Y-STR Profile | Allele Indicator | ALL | M↑ | 1 | 1 | 1 | 1 | N |
| 18.016_4 | Autosomal STR, X-STR and Y-STR Profile | Locus Analysis Indicator | LAI | M↑ | 1 | 1 | 1 | 1 | N |
| 18.016_5 | Autosomal STR, X-STR and Y-STR Profile | Precise Call Determination | PCDT | M↑ | 1 | 1 | 1 | 1 | N |
| 18.016_6 | Autosomal STR, X-STR and Y-STR Profile | Allele Call 1 | AL1 | D | 1 | 4 | 0 | 1 | NS |
| 18.016_7 | Autosomal STR, X-STR and Y-STR Profile | Allele Call 2 | AL2 | D | 1 | 4 | 0 | 1 | NS |
| 18.016_8 | Autosomal STR, X-STR and Y-STR Profile | Allele Call 3 | AL3 | D | 1 | 4 | 0 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 18.016_9 | Autosomal STR, X-STR and Y-STR Profile | Batch ID | BID | O↑ | 1 | 32 | 0 | 1 | U |
| 18.016_10 | Autosomal STR, X-STR and Y-STR Profile | Electropherogram Cross Reference | ECR | O↑ | 1 | 8 | 0 | 1 | U |
| 18.016_11 | Autosomal STR, X-STR and Y-STR Profile | Ladder Cross Reference | LCR | O↑ | 1 | 8 | 0 | 1 | U |
| 18.016_12 | Autosomal STR, X-STR and Y-STR Profile | Kit ID | KID | M↑ | 1 | 3 | 0 | 1 | N |
| 18.016_13 | Autosomal STR, X-STR and Y-STR Profile | Kit Name | KNM | D | 1 | 32 | 0 | 1 | U |
| 18.016_14 | Autosomal STR, X-STR and Y-STR Profile | Manufacturer | KMF | D | 1 | 32 | 0 | 1 | U |
| 18.016_15 | Autosomal STR, X-STR and Y-STR Profile | Description of the Kit (with part or catalog number) | KDS | D | 1 | 128 | 0 | 1 | U |
| 18.017 | Mitochondrial DNA Data | | DMD | D | n/a | n/a | 0 | 1 | n/a |
| 18.017_1 | Mitochondrial DNA Data | Mito Control Region 1 | MT1 | M↑ | 1 | 946 | 1 | 1 | AS |
| 18.017_2 | Mitochondrial DNA Data | Mito Control Region 2 | MT2 | M↑ | 1 | 977 | 1 | 1 | AS |
| 18.017_3 | Mitochondrial DNA Data | Base Composition Starting Point | BSP | M↑ | 1 | 5 | 1 | 1 | N |
| 18.017_4 | Mitochondrial DNA Data | Base Composition Ending Point | BEP | M↑ | 1 | 5 | 1 | 1 | N |
| 18.017_5 | Mitochondrial DNA Data | Base Composition A Length | BCA | M↑ | 1 | 2 | 1 | 1 | N |
| 18.017_6 | Mitochondrial DNA Data | Base Composition G Length | BCG | M↑ | 1 | 2 | 1 | 1 | N |
| 18.017_7 | Mitochondrial DNA Data | Base Composition C Length | BCC | M↑ | 1 | 2 | 1 | 1 | N |
| 18.017_8 | Mitochondrial DNA Data | Base Composition T Length | BCT | M↑ | 1 | 2 | 1 | 1 | N |
| 18.018 | DNA User-Defined Profile | | UDP | D | n/a | n/a | 1 | 1 | n/a |
| 18.018_0 | DNA User-Defined Profile | | UDP_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 18.019 | Electropherogram Description | | EPD | D | n/a | n/a | 1 | 1 | n/a |
| 18.019_0 | Electropherogram Description | | EPD_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 18.019_1 | Electropherogram Description | Electropherogram Image Reference | EIR | M↑ | 1 | 8 | 1 | 1 | U |
| 18.019_2 | Electropherogram Description | Electropherogram Storage Type | EST | M↑ | 1 | 4 | 1 | 1 | U |
| 18.019_3 | Electropherogram Description | Image Data Descriptor | IDD | M↑ | 1 | 200 | 1 | 1 | U |
| 18.019_4 | Electropherogram Description | Electropherogram Data | ELPD | M↑ | 2 | Unlimited | 1 | 1 | Base64 |
| 18.019_5 | Electropherogram Description | Electropherogram Screenshot | EPS | O↑ | 2 | Unlimited | 1 | 1 | Base64 |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 18.02 | DNA Genotype Distribution | | DGD | O | 1 | 1 | 0 | 1 | N |
| 18.021 | DNA Genotype Allele Pair | | GAP | D | n/a | n/a | 0 | 1 | n/a |
| 18.021_0 | DNA Genotype Allele Pair | | GAP_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 18.021_1 | DNA Genotype Allele Pair | Genotype Locus Reference | GLR | M↑ | 1 | 3 | 1 | 1 | N |
| 18.021_2 | DNA Genotype Allele Pair | Allele Pair | ALP | M↑ | 3 | 9 | 1 | 1 | NS |
| 18.021_3 | DNA Genotype Allele Pair | Genotype Numerical Weight | GNW | M↑ | 1 | 5 | 1 | 1 | NS |
| 18.022 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 18.023 | Electropherogram Ladder | | EPL | D | n/a | n/a | 0 | 1 | n/a |
| 18.023_0 | Electropherogram Ladder | | EPL_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 18.023_1 | Electropherogram Ladder | Ladder Image Reference | LIR | M↑ | 1 | 8 | 1 | 1 | U |
| 18.023_2 | Electropherogram Ladder | Ladder Storage Type | LST | M↑ | 1 | 4 | 1 | 1 | U |
| 18.023_3 | Electropherogram Ladder | Ladder Image Data Descriptor | LDD | M↑ | 1 | 200 | 1 | 1 | U |
| 18.023_4 | Electropherogram Ladder | Ladder Electropherogram Data | LEPD | M↑ | 2 | Unlimited | 1 | 1 | Base64 |
| 18.023_5 | Electropherogram Ladder | Ladder Electropherogram Screenshot | LES | O↑ | 2 | Unlimited | 1 | 1 | Base64 |
| 18.902 | Annotation Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 18.902_0 | Annotation Information | Subfields: Repeating sets of information items | ANN_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 18.902_1 | Annotation Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 18.902_2 | Annotation Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | * | 1 | 1 | U |
| 18.902_3 | Annotation Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 18.902_4 | Annotation Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 18.992 | Type-2 Record Cross Reference | | T2C | M | 1 | 2 | 1 | 1 | N |
| 18.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 18.995 | Annotated Information | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 18.995_0 | Annotated Information | | ASC_0 | M↑ | n/a | n/a | 1 | 255 | n/a |
| 18.995_1 | Associated Context Number | | ACN | M↑ | 1 | 3 | 1 | 1 | n/a |
| 18.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | n/a |
| 18.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 18.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | 15 | 15 | 0 | 1 | AN |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-------------------------|-------------------------|-----------|-----------|------------|
| 18.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 18.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 18.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 18.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 18.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 18.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 18.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | O | 3 | 8 | 0 | 1 | NS |
| 18.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 2 | 6 | 0 | 1 | AN |
| 18.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 1 | 3 | 0 | 1 | AN |
| 18.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 18.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 18.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 18.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 0 | 1 | U |
| 18.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 20.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 20.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 20.003 | SRN Cardinality | | CAR | M | 1 | 1 | 1 | 1 | A |
| 20.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 20.005 | Source Representation Date | | SRD | O | Dependent upon encoding | Dependent upon encoding | 0 | 1 | N |
| 20.006 | Hash | Horizontal Line Length | HLL | D | 2 | 5 | 1 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|------------------------------------|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 20.007 | Vertical Line Length | | VLL | D | 2 | 5 | 1 | 1 | N |
| 20.008 | Scale Units | | SLC | D | 1 | 1 | 0 | 1 | N |
| 20.009 | Transmitted Horizontal Pixel Scale | | THPS | D | 1 | 5 | 0 | 1 | N |
| 20.01 | Transmitted Vertical Pixel Scale | | TVPS | D | 1 | 5 | 0 | 1 | N |
| 20.011 | Compression Algorithm | | CGA | D | 3 | 5 | 0 | 1 | AN |
| 20.012 | Bits Per Pixel | | BPX | D | 1 | 2 | 0 | 1 | N |
| 20.013 | Color Space | | CSP | D | 3 | 4 | 0 | 1 | A |
| 20.014 | Acquisition Source | | AQS | M | n/a | n/a | 0 | 1 | n/a |
| 20.014_0 | Acquisition Source | Subfields: Repeating sets of information items | AQS_0 | M | n/a | n/a | 1 | 9 | n/a |
| 20.014_1 | Acquisition Source | Acquisition Source Type | AQT | M | 1 | 2 | 1 | 1 | N |
| 20.014_2 | Acquisition Source | Analog to Digital Conversion | A2D | D | 1 | 200 | 0 | 1 | U |
| 20.014_3 | Acquisition Source | Radio Transmission Format Description | FDN | D | 1 | 200 | 0 | 1 | U |
| 20.014_4 | Acquisition Source | Acquisition Special Characteristics | AQSC | D | 1 | 200 | 0 | 1 | U |
| 20.015 | Source Representation Format | | SFT | M | n/a | n/a | 1 | 1 | n/a |
| 20.015_1 | Source Representation Format | File Type | FTY | M | 3 | 6 | 1 | 1 | U |
| 20.015_2 | Source Representation Format | Decoding Instructions | DEI | O | 1 | 1000 | 0 | 1 | U |
| 20.016 | Segments | | SEG | O | n/a | n/a | 0 | 1 | n/a |
| 20.016_0 | Segments | Subfields: Repeating sets of information items | SEG_0 | M↑ | n/a | n/a | 0 | 99 | n/a |
| 20.016_1 | Segments | Reference Segment Position | RSP | M↑ | 1 | 2 | 1 | 1 | N |
| 20.016_2 | Segments | Internal File Reference Pointer | IPT | M↑ | 1 | 15 | 1 | 1 | ANS |
| 20.016_3 | Segments | Number of Points | NOP | D | 1 | 2 | 0 | 1 | N |
| 20.016_4 | Segments | Horizontal Point Offset | HPO | D | 1 | 5 | 1 | 1 | N |
| 20.016_5 | Segments | Vertical Point Offset | VPO | D | 1 | 5 | 1 | 1 | N |
| 20.017 | Scanned Horizontal Pixel Scale | | SHPS | D | 1 | 5 | 0 | 1 | N |
| 20.018 | Scanned Vertical Pixel Scale | | SVPS | D | 1 | 5 | 0 | 1 | N |
| 20.019 | Time Index | | TIX | D | n/a | n/a | 0 | 1 | n/a |
| 20.019_0 | Time Index | Subfields: Repeating sets of information items | TIX_0 | M↑ | n/a | n/a | 0 | 99 | n/a |
| 20.019_1 | Time Index | Time Index Start | TIS | M↑ | 12 | 12 | 1 | 1 | NS |
| 20.019_2 | Time Index | Time Index End | TIE | M↑ | 12 | 12 | 1 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-------------------------------------|--|----------------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 20.02 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 20.021 | Source Representation Number | | SRN | M | 1 | 3 | 1 | 1 | N |
| 20.022 | Imagery Capture Date Range Estimate | | ICDR | D | 3 | 9 | 0 | 1 | AN |
| 20.101 | Voice Engine Mode Export | | MODEL_EXPORT | O | n/a | n/a | 0 | 1 | U |
| 20.101_1 | Voice Engine Mode Export | Model Identifier | MODEL_EXPORT_1 | O | 1 | 50 | 0 | 1 | U |
| 20.101_2 | Voice Engine Mode Export | Model Export Software Version | MODEL_EXPORT_2 | O | 1 | 50 | 0 | 1 | U |
| 20.101_3 | Voice Engine Mode Export | Model Export Software Name | MODEL_EXPORT_3 | O | 1 | 50 | 0 | 1 | U |
| 20.101_4 | Voice Engine Mode Export | Model Export Associated Type 2 Reference | MODEL_EXPORT_4 | O | 1 | 6 | 0 | 1 | U |
| 20.101_5 | Voice Engine Mode Export | Model Export Comment | MODEL_EXPORT_5 | O | 1 | 255 | 0 | 1 | U |
| 20.101_6 | Voice Engine Mode Export | Model Export Software Vendor | MODEL_EXPORT_6 | O | 1 | 50 | 0 | 1 | U |
| 20.902 | Annotated Information | | ANN | M↑ | n/a | n/a | 0 | 1 | n/a |
| 20.902_0 | Annotated Information | Subfields: Repeating sets of information items | ANN_0 | D | n/a | n/a | 1 | * | n/a |
| 20.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | dependent on encoding | dependent on encoding | 1 | 1 | AN |
| 20.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 20.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 20.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | Unlimited | 1 | 1 | U |
| 20.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |
| 20.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 1 | 1 | n/a |
| 20.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-------------------------|-------------------------|-----------|-----------|------------|
| 20.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 20.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 20.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 20.994 | External File Reference | | EFR | D | 1 | 200 | 0 | 1 | U |
| 20.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 20.995_0 | Associated Context | Subfields: Repeating sets of information items | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 20.995_1 | Associated Context | Associated Context Number | ACN | M↑ | 1 | 3 | 1 | 1 | N |
| 20.995_2 | Associated Context | Associated Segment Position | ASP | O↑ | 1 | 2 | 0 | 1 | N |
| 20.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 20.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 1 | 1 | n/a |
| 20.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | dependent upon encoding | dependent upon encoding | 0 | 1 | AN |
| 20.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 20.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 20.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | NS |
| 20.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 20.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 20.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | NS |
| 20.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | O | 1 | 8 | 1 | 1 | NS |
| 20.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 3 | 6 | 0 | 1 | AN |
| 20.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 2 | 3 | 0 | 1 | AN |
| 20.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 20.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|---|----------|-------|--------------|--------------|-----------|-----------|------------|
| 20.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 20.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 0 | 1 | U |
| 20.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 1 | 1 | U |
| 20.999 | Source Representation Data | | DATA | D | 1 | Unlimited | 0 | 1 | B |
| 21.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 21.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 21.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 21.005 | Associated Context Date | | ACD | O | 12 | 12 | 0 | 1 | N |
| 21.006 | Medical Device Information | | MDI | O | n/a | n/a | 0 | 1 | n/a |
| 21.006_0 | Medical Device Information | Repeating Subfields | MDI_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 21.006_1 | Medical Device Information | Type of Device | TYP | O↑ | 1 | 500 | 0 | 1 | U |
| 21.006_2 | Medical Device Information | Device Manufacturer | MFG | O↑ | 1 | 500 | 0 | 1 | U |
| 21.006_3 | Medical Device Information | Device Make | MAK | O↑ | 1 | 500 | 0 | 1 | U |
| 21.006_4 | Medical Device Information | Device Model | MOD | O↑ | 1 | 500 | 0 | 1 | U |
| 21.006_5 | Medical Device Information | Device Serial Number | SER | O↑ | 1 | 500 | 0 | 1 | U |
| 21.006_6 | Medical Device Information | Comments | COM | O↑ | 1 | Unlimited | 0 | 1 | U |
| 21.015 | Associated Context Format | | AFT | M | n/a | n/a | 1 | 1 | n/a |
| 21.015_1 | Associated Context Format | File Type | FTY | M | 3 | 6 | 1 | 1 | U |
| 21.015_2 | Associated Context Format | Decoding Instructions | DEI | O | 1 | 1000 | 0 | 1 | U |
| 21.016 | Segments | | SEG | O | n/a | n/a | 0 | 1 | n/a |
| 21.016_0 | Segments | Repeating Subfields | SEG_0 | M↑ | n/a | n/a | 0 | 99 | n/a |
| 21.016_1 | Segments | Associated Segment Position | ASP | M↑ | 1 | 2 | 1 | 1 | n/a |
| 21.016_2 | Segments | Internal File Reference Pointer | IPT | M↑ | 1 | 15 | 1 | 1 | ANS |
| 21.016_3 | Segments | Number of Points | NOP | O↑ | 1 | 2 | 0 | 99 | N |
| 21.016_4 | Segments | Horizontal Point Offset | HPO | D | 1 | 5 | 1 | 1 | N |
| 21.016_5 | Segments | Vertical Point Offset | VPO | D | 1 | 5 | 1 | 1 | N |
| 21.019 | Time Index | | TIX | D | n/a | n/a | 0 | 1 | n/a |
| 21.019_0 | Time Index | Repeating Subfields | TIX_0 | M↑ | n/a | n/a | 0 | 99 | n/a |
| 21.019_1 | Time Index | Time Index Start | TIS | M↑ | 12 | 12 | 1 | 1 | NS |
| 21.019_2 | Time Index | Time Index End | TIE | M↑ | 12 | 12 | 1 | 1 | NS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|-------------------------------------|----------|-------|-----------|-----------|-----------|-----------|------------|
| 21.02 | Comment | | COM | O | 1 | 126 | 0 | 1 | U |
| 21.021 | Associated Context Number | | ACN | M | 1 | 3 | 1 | 1 | N |
| 21.022 | Image Capture Date Range Estimate | | ICDR | D | 3 | 9 | 0 | 1 | AN |
| 21.046 | Image Subject Condition | | SUB | O | n/a | n/a | 1 | 1 | n/a |
| 21.046_1 | Image Subject Condition | Subject Status Code | SSC | M↑ | 1 | 1 | 1 | 1 | A |
| 21.046_2 | Image Subject Condition | Subject Body Status Code | SBSC | D | 1 | 1 | 1 | 1 | N |
| 21.046_3 | Image Subject Condition | Subject Body Class Code | SBCC | D | 1 | 1 | 0 | 1 | N |
| 21.047 | Capture Organization Name | | CON | O | 1 | 1000 | 0 | 1 | U |
| 21.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 21.902_0 | Annotated Information | Repeating Subfields | ANN_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 21.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 21.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 21.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 21.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 21.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 21.994 | External File Reference | | EFR | D | 1 | 200 | 0 | 1 | U |
| 21.996 | Hash | | HAS | O | 64 | 64 | 0 | 1 | H |
| 21.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 21.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | 15 | 15 | 0 | 1 | AN |
| 21.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 0 | 1 | NS |
| 21.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 21.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 21.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 0 | 1 | NS |
| 21.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 21.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------------------|-----------------------|-----------|-----------|------------|
| 21.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | O | 3 | 8 | 0 | 1 | NS |
| 21.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 2 | 6 | 0 | 1 | AN |
| 21.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 1 | 3 | 0 | 1 | AN |
| 21.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 21.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 21.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | 1 | U |
| 21.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 0 | 1 | U |
| 21.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 1 | 1 | U |
| 21.999 | Associated Context Data | | DATA | D | 1 | Unlimited | 0 | 1 | B |
| 98.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 98.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 98.003 | IA Data Format Owner | | DFO | M | 4 | 4 | 1 | 1 | H |
| 98.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 98.005 | IA Data Format Type | | DFT | M | 1 | 20 | 1 | 1 | U |
| 98.006 | IA Data Creation Date | | DCD | M | Dependent on Encoding | Dependent on Encoding | 1 | 1 | N |
| 98.9 | Audit Log | | ALF | O | n/a | n/a | 0 | 1 | n/a |
| 98.900_0 | Audit Log | Subfields: Repeating sets of information items | ALF_0 | M↑ | n/a | n/a | 0 | * | n/a |
| 98.900_1 | Audit Log | Event | EVT | M↑ | 5 | 9 | 1 | 1 | N |
| 98.900_2 | Audit Log | Event Reason | EVR | O↑ | 1 | 200 | 0 | 1 | U |
| 98.900_3 | Audit Log | Information Identifier | IID | M↑ | 15 | 30 | 1 | 1 | H |
| 98.900_4 | Audit Log | Agent | AGT | M↑ | 1 | 200 | 1 | 1 | U |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|----------|-----------------------------------|-------------------------------------|----------|-------|---|---|-----------|-----------|------------|
| 98.900_5 | Audit Log | Old Reference | OLD | O↑ | Dependent upon the format of the location referenced by 98.900_3 Information Identifier (IID) | Dependent upon the format of the location referenced by 98.900_3 Information Identifier (IID) | 0 | 1 | U |
| 98.901 | Audit Log | Audit Revision Number | ARN | D | 1 | 3 | 0 | 1 | N |
| 98.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 99.001 | Record Header | | LEN | M | T = 4; X = 1 | T = 8; X = 2 | 1 | 1 | N |
| 99.002 | Information Designation Character | | IDC | M | 1 | 2 | 1 | 1 | N |
| 99.004 | Source Agency | | SRC | M | 1 | Unlimited | 1 | 1 | U |
| 99.005 | Biometric Capture Date | | BCD | M | 1 | Unlimited | 1 | 1 | N |
| 99.1 | CBEFF Header Version | | HDV | M | T = 4, X = 3 | 4 | 1 | 1 | N |
| 99.101 | Biometric Type | | BTY | M | T = 4, X = 3 | 8 | 1 | 1 | H |
| 99.102 | Biometric Data Quality | | BDQ | O | n/a | n/a | 0 | 1 | n/a |
| 99.102_0 | Biometric Data Quality | | BDQ_0 | M↑ | n/a | n/a | 0 | 9 | n/a |
| 99.102_1 | Biometric Data Quality | Quality Value | QVU | M↑ | 1 | 3 | 1 | 1 | N |
| 99.102_2 | Biometric Data Quality | Algorithm Vendor Identification | QAV | M↑ | 4 | 4 | 1 | 1 | H |
| 99.102_3 | Biometric Data Quality | Algorithm Product Identification | QAP | M↑ | 1 | 5 | 1 | 1 | N |
| 99.103 | BDB Format Owner | | BFO | M | 4 | 4 | 1 | 1 | H |
| 99.104 | BDB Format Type | | BFT | M | 4 | 4 | 1 | 1 | H |
| 99.902 | Annotated Information | | ANN | O | n/a | n/a | 0 | 1 | n/a |
| 99.902_0 | Annotated Information | Repeating subsets | ANN_0 | M↑ | n/a | n/a | 1 | * | n/a |
| 99.902_1 | Annotated Information | Greenwich Mean Time | GMT | M↑ | 15 | 15 | 1 | 1 | AN |
| 99.902_2 | Annotated Information | Processing Algorithm Name / Version | NAV | M↑ | 1 | Unlimited | 1 | 1 | U |
| 99.902_3 | Annotated Information | Algorithm Owner | OWN | M↑ | 1 | 64 | 1 | 1 | U |
| 99.902_4 | Annotated Information | Process Description | PRO | M↑ | 1 | 255 | 1 | 1 | U |
| 99.903 | Device Unique Identifier | | DUI | O | 13 | 16 | 0 | 1 | ANS |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 99.904 | Make/Model/Serial Number | | MMS | O | n/a | n/a | 1 | 1 | n/a |
| 99.904_1 | Make/Model/Serial Number | Make | MAK | M↑ | 1 | 50 | 0 | 1 | U |
| 99.904_2 | Make/Model/Serial Number | Model | MOD | M↑ | 1 | 50 | 0 | 1 | U |
| 99.904_3 | Make/Model/Serial Number | Serial Number | SER | M↑ | 1 | 50 | 0 | 1 | U |
| 99.993 | Source Agency Name | | SAN | O | 1 | 125 | 0 | 1 | U |
| 99.995 | Associated Context | | ASC | O | n/a | n/a | 0 | 1 | n/a |
| 99.995_0 | Associated Context | Repeating subsets | ASC_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 99.995_1 | Associated Context Number | | ACN | M↑ | n/a | n/a | 1 | 1 | n/a |
| 99.995_2 | Associated Segment Position | | ASP | M↑ | 1 | 3 | 0 | 1 | N |
| 99.996 | Hash | | HAS | O↑ | 1 | 2 | 0 | 1 | n/a |
| 99.997 | Source Representation | | SOR | O | n/a | n/a | 0 | 1 | n/a |
| 99.997_0 | Source Representation | Repeating subsets | SOR_0 | M↑ | n/a | n/a | 0 | 255 | n/a |
| 99.997_1 | Source Representation | Source Representation Number | SRN | M↑ | 1 | 3 | 1 | 1 | N |
| 99.997_2 | Source Representation | Reference Segment Position | RSP | O↑ | 1 | 2 | 0 | 1 | N |
| 99.998 | Geographic Sample Acquisition Location | | GEO | O | n/a | n/a | 0 | 1 | n/a |
| 99.998_01 | Geographic Sample Acquisition Location | Universal Time Entry | UTE | O↑ | 15 | 15 | 0 | 1 | AN |
| 99.998_02 | Geographic Sample Acquisition Location | Latitude Degree Value | LTD | D | 1 | 9 | 1 | 1 | NS |
| 99.998_03 | Geographic Sample Acquisition Location | Latitude Minute Value | LTM | D | 1 | 8 | 0 | 1 | NS |
| 99.998_04 | Geographic Sample Acquisition Location | Latitude Second Value | LTS | D | 1 | 8 | 0 | 1 | N |
| 99.998_05 | Geographic Sample Acquisition Location | Longitude Degree Value | LGD | D | 1 | 10 | 1 | 1 | NS |
| 99.998_06 | Geographic Sample Acquisition Location | Longitude Minute Value | LGM | D | 1 | 8 | 0 | 1 | NS |
| 99.998_07 | Geographic Sample Acquisition Location | Longitude Second Value | LGS | D | 1 | 8 | 0 | 1 | N |
| 99.998_08 | Geographic Sample Acquisition Location | Elevation | ELE | O | 3 | 8 | 0 | 1 | NS |
| 99.998_09 | Geographic Sample Acquisition Location | Geodetic Datum Code | GDC | O | 2 | 6 | 0 | 1 | AN |
| 99.998_10 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Zone | GCM | D | 1 | 3 | 0 | 1 | AN |

| Field . | Category | SubCategory | Mnemonic | Cond. | Field Min | Field Max | Occur Min | Occur Max | Char Types |
|-----------|--|--|----------|-------|-----------|-----------|-----------|-----------|------------|
| 99.998_11 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Easting | GCE | D | 1 | 6 | 0 | 1 | N |
| 99.998_12 | Geographic Sample Acquisition Location | Geographic Coordinate Universal Transverse Mercator Northing | GCN | D | 1 | 8 | 0 | 1 | N |
| 99.998_13 | Geographic Sample Acquisition Location | Geographic Reference Text | GRT | O | 1 | 150 | 0 | * | U |
| 99.998_14 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Identifier | OSI | O | 1 | 10 | 1 | 1 | U |
| 99.998_15 | Geographic Sample Acquisition Location | Geographic Coordinate Other System Value | OCV | D | 1 | 126 | 0 | 1 | U |
| 99.999 | Biometric Data Block | | DATA | D | 1 | Unlimited | 1 | 1 | B |

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Abbreviations and Acronyms

| TERM | DEFINITION |
|--------|---|
| ANSI | American National Standards Institute |
| ASN.1 | Abstract Syntax Notation One |
| BIMA | Biometrics Identity Management Agency |
| CJIS | Criminal Justice Information Services |
| DoD | Department of Defense |
| DOJ | Department of Justice |
| EBTS | Electronic Biometric Transmission Specification |
| FBI | Federal Bureau of Investigation |
| HSPD | Homeland Security Presidential Directive |
| IDD | Integrated Data Dictionary |
| IEP | Information Exchange Package |
| IEPD | Information Exchange Package Documentation |
| ITL | Information Technology Laboratory |
| MIME | Multipart Internet Mail Extension |
| N-DEx | National Law Enforcement Data Exchange |
| NIEM | National Information Exchange Model |
| NIST | National Institute of Standards and Technology |
| TWPDES | Terrorist Watchlist Person Data Exchange Standard |
| U.S. | United States |
| XML | Extensible Markup Language |
| XOP | XML-binary Optimized Packaging |

Bibliography

- [1] Data Format for the Interchange of Fingerprint, Facial& Other Biometric Information ANSI/NIST-ITL 1-2011 Update: 2013. Incorporating ANSI/NIST-ITL 1-2011 Sup: Dental & ANSI/NIST-ITL 1-2011 Sup: Voice with additional new material, ANSI/NIST-ITL 1-2011: UPDATE 2013 NIST Special Publication 500-290 Version 2 (2013).
- [2] NIEM Current Release from <http://reference.niem.gov/>
- [3] NGA Standardization Document Geopolitical Entities, Names, and Codes (GENC) Standard edition 3.0, National Center for Geospatial Intelligence Standards, June 30, 2014.
- [4] ISO 636-3, SIL International, referenced at <http://www-01.sil.org/iso639-3/default.asp> .
- [5] Codes for the Representation of Names of Languages Part 2: Alpha-3 Code (ISO 639-2 Language Codes), Technical Committees ISO/TC 37, Terminology and other language and content resources, Subcommittee SC 2, Layout of vocabularies and ISO/TC 46, Information and documentation, Subcommittee SC 4, Computer applications in information and documentation, April 8, 2011.
- [6] Electronic Biometric Transmission Specification (EBTS) NGI-DOC-01078-10.0, Federal Bureau of Investigation, Criminal Justice Information Services Division, July 2, 2013.
- [7] Electronic Biometric Transmission Specification (EBTS) Technical and Operational Update (TOU) 10.0.3, FBI CJIS/NGI EBTS TOU 10.0.3, Federal Bureau of Investigation, Criminal Justice Information Services Division, September 30, 2014.
- [8] Department of Defense (DoD) Integrated Data Dictionary (IDD) Electronic Biometric Transaction Standard (EBTS), Version 6.0.

- [9] Latent Interoperability Transmission Specification (NIST SP – 1152), Melissa K. Taylor; Will Chapman; Austin Hicklin; George Kiebusinski; Peter Komarinski; John Mayer-Splain; Rachel Wallner, February 05, 2013.
- [10] National Information Exchange Model — Model Package Description Specification, NIEM Technical Architecture Committee (NTAC), Version 3.0.1, April 27, 2015.
- [11] XML Schema Part 1: Structures Second Edition, W3C Recommendation 28 October 2004.
- [12] XML Schema Part 2: Datatypes Second Edition, W3C Recommendation 28 October 2004.
- [13] Extensible Markup Language (XML) 1.0, Second Edition. World Wide Web Consortium (W3C), 6 October 2000.
- [14] RFC 3986: Uniform Resource Identifier (URI): Generic Syntax. Internet Engineering Task Force, 2005.
- [15] Department of Defense (DoD) Integrated Data Dictionary (IDD) Electronic Biometric Transaction Standard (EBTS), Version 6.0. Technical Architecture Committee (NTAC), Version 3.0.1, April 27, 2015.
- [16] NIEM Naming and Design Rules, Version 3.0, NIEM Technical Architecture Committee (NTAC), 31 July 2014.
- [17] NIEM 3.2 Schema, <http://release.niem.gov/niem/3.2/>.
- [18] ANSI/NIST-ITL 1-2011 Update: 2013 XML Schema, June 28, 2015.
http://biometrics.nist.gov/cs_links/standard/ansi_2015/schema-MRT/ANSI-NIST-ITL-2013_FINAL.zip.
- [19] Base Application Profile (AP) for the Department of Defense (DoD) Electronic Biometric Transmission Specification (EBTS) 4.0 standard.

- [20] Terrorist Watchlist Person Data Exchange Standard (TWPDES) - Biometric Data and Minor TWPDES Core Changes Information Exchange Package Documentation (IEPD), December 2009.
- [21] American Standard Code for Information Interchange, ASA X3.4-1963. American Standards Association. June 17, 1963.
- [22] NIST Special Publication 500-295 Conformance Testing Methodology for ANSI/NIST-ITL 1-2011, Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information (Release 1.0).

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