COMMONWEALTH OF MASSACHUSETTS

MASSACHUSETTS ELECTRONIC FINGERPRINT TRANSMISSION SPECIFICATIONS (MEFTS) V7

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Prepared By:
Commonwealth of Massachusetts
Criminal History Systems Board
200 Arlington St. Suite 2200
Chelsea, MA 02150

Massachusetts State Police
State Identification Section
59 Horse Pond Road
Sudbury, MA 01776

Massachusetts Executive Office
of Public Safety
One Ashburton Place, 21st Floor
Boston, MA 02108

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1.1 Background

For almost 100 years fingerprint cards have been accepted as the standard for recording and storing fingerprint identification data. During this time the content, format, and quality of fingerprint cards have been revised and refined. Fingerprint cards are now accepted as the national standard for the exchange of arrest identification data between criminal justice agencies.

Since fingerprint cards must be physically transported and processed, substantial delays are introduced into the identification cycle. To improve the speed and accuracy of the fingerprint identification process, and to eliminate the need for contributing agencies to create and mail paper fingerprint cards to the FBI for processing, the FBI Criminal Justice Information Services (CJIS) Division has developed an Integrated Automated Fingerprint Identification System (IAFIS) that will support the paperless submission of fingerprint records.

In support of the IAFIS, and in accordance with the recommendations of the National Crime Information Center (NCIC), the Advisory Policy Board (APB), and the Identification Services Subcommittee, the FBI has developed a National Institute of Standards and Technology (NIST) certified standard for electronically encoding and transmitting fingerprint image, identification, and arrest data. This standard consists of the American National Standards Institute (ANSI) specifications titled "Data Format for the Interchange of Fingerprint Information" (ANSI NIST-CSL 1-1993), and "Data Format for the Interchange of Fingerprint, Facial & SMT Information (ANSI/NIST-ITL 1a-1997).

These ANSI standards define the content, format and units of measurement for the exchange of information that may be used in the fingerprint identification process. These specifications allow for the electronic exchange of fingerprint supported data between criminal justice agencies and AFIS systems.

The Commonwealth of Massachusetts has adopted the standards set by the FBI for transmitting fingerprints electronically. To support Massachusetts' criminal record processing rules, additional data fields have been added to the FBI Specification. Commonwealth officials have named these standards the Massachusetts Electronic Fingerprint Transmission Specification or MEFTS.

The Commonwealth has designed and implemented a central Store and Forward server to receive, process and return transactions to participating police departments and agencies within the state. The Store and Forward server will forward all transactions to the State AFIS and upon FBI criterion business rules forward the record to the FBI – IAFIS over the ITN. The Commonwealth's Store and Forward server will provide the mechanism to introduce sole-source submission of Massachusetts criminal arrest records to the FBI.

MASSACHUSETTS SECTION

1.2 Contents of Specification

While the ANSI standards referenced in Section 1.1 will allow all AFISs and related systems to communicate, the purpose of this document is to specify certain requirements which agencies must adhere to in order to communicate electronically with the Commonwealth's Store & Forward system and the FBI's IAFIS. IAFIS consists of three parts: (1) Identification, Tasking and Networking (ITN), (2) Automated Fingerprint Identification System (AFIS), and (3) the Interstate Identification Index (III). III electronic communications do not include fingerprints, and the requirements are contained in appropriate NCIC manuals. This specification covers the remainder of the IAFIS electronic transmissions involving fingerprints.

The MEFTS transaction, which at this publication revision only includes the Type 1, 2 and 4 record layout will be forwarded from the police department agency live-scan or card-scanning workstation over the CJIS WAN to the Store & Forward server located at the CJIS data center.

1.3 Change Control

Any changes to the data fields or formats within the MEFTS must honor previously published protocols to ensure that the current systems are not adversely affected. Since IAFIS and the States' systems are being developed independently, a process has been established which provides for coordinated enhancements within the various systems while maintaining reliable interoperability. This process is based in the tagged field structure defined in the 1993 ANSI standard, and a few "business rules". The rules simply state that field definitions cannot change over time or from system to system. If a change is needed, a new field is defined and assigned a new tag number. The new field cannot be made mandatory for established functionality, but merely *enhances* functionality for those systems wishing to incorporate the new definition. With this process in place, every system on the network has the opportunity to enhance its own system on its own schedule, yet no system is ever forced to make a change in order to maintain current functionality. Any additions to the MEFTS will be done in fields 2.383-2.389 which are reserved for use by Massachusetts.

1.4 Tagged Fields

1.4.1 Interpretation of Tags

In the construction and interpretation of the logical record, the tag number should not be taken as having a fixed number of digits. For example, in the version of the standard, Type-2 logical record, field tags are always shown as having three decimals between the decimal point and colon (2.NNN:data...). However, in future versions, Type-2 field tag numbers may be expanded to four or more digits (2.NNNN:data...). To accommodate such possibilities, 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. Thus, for example, a State Ident Bureau could add the State Identification Number (SID) to the end of a Type-2 record created at the booking station. (This is less restrictive than the ANSI Standard's language.)

1.4.2 Use of Separator Characters

Separator characters may best be understood by considering them necessary for what follows, not what precedes them. Thus, when a tagged field includes subfields (e.g., the ASL field contains subfields DOO and AOL), and another subfield is still to follow, the following one 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 NIST, successive separator characters now **may** be used with no intervening blank or other character when a subfield is missing. In Type-2 records, IAFIS 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 IAFIS's validating each subfield in a grouped field to see whether it contains valid data or merely a blank. This will keep invalid data out of IAFIS databases.

1.5 Error Handling

Error processing takes on two primary forms within the Commonwealth's Store and Forward system and IAFIS. These are front-end error detection and internal process error detection and correction. The front-end process examines every incoming transaction from a security and mandatory data perspective. Potential security violations are rejected and transferred immediately to a system administrator. Transactions lacking mandatory data, or that are incomplete in referenced content, are rejected. All mandatory data and all optional data fields are edit checked for length and type of data included. Optional data failing this validation check are ignored. Mandatory data that fail this validation check are passed to a QC Service Provider (FBI only) for resolution. If the Service Provider can correct the data, the transaction will be forwarded for further processing. If the Service Provider cannot resolve the issue, the transaction can either be rejected or sent forward for attempted resolution later in the process. The Store and Forward system currently edit checks the OBTN for presence and proper formatting.

Secondary edit checks are performed any time a Store and Forward/IAFIS segment attempts to utilize incoming data to perform a search or update a database. Any such action will check the field according to length and type as well as content. Some data values are content sensitive. That is, they can only be examined with respect to the databases against which they are to be applied. Errors in submissions detected at that time will generally be forwarded to a Logic Error Resolution Service Provider (FBI only). At that point, appropriate actions can be taken to (3)

correct the discrepancy and an internal resubmission of the transaction can take place. Alternatively, if the Service Provider cannot resolve the issue, the transaction can be rejected.

In the interpretation of the logical record, tags that are not defined for the requested transaction are to be ignored; their inclusion is not to be considered an error. This rule makes it possible to use a single transmission format, for example, to control both intrastate and interstate transmissions.

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 record or issuance of an error message. The Store and Forward will reject all transactions, when missing or incorrect data would frustrate processing of the transaction. The following list illustrates these types of errors:

Appendix H lists the current set of Error Messages that are pertinent to the MEFTS/EFTS user (i.e., Store and Forward/IAFIS internal errors are not listed).

SECTION 2

DESCRIPTION OF OPERATIONAL CONCEPTS

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Massachusetts processes 5 Types of Transaction (TOT) of Electronic Ten-Print Submissions. They are described in Section 2.2.

2.1 Electronic Ten-Print Submissions

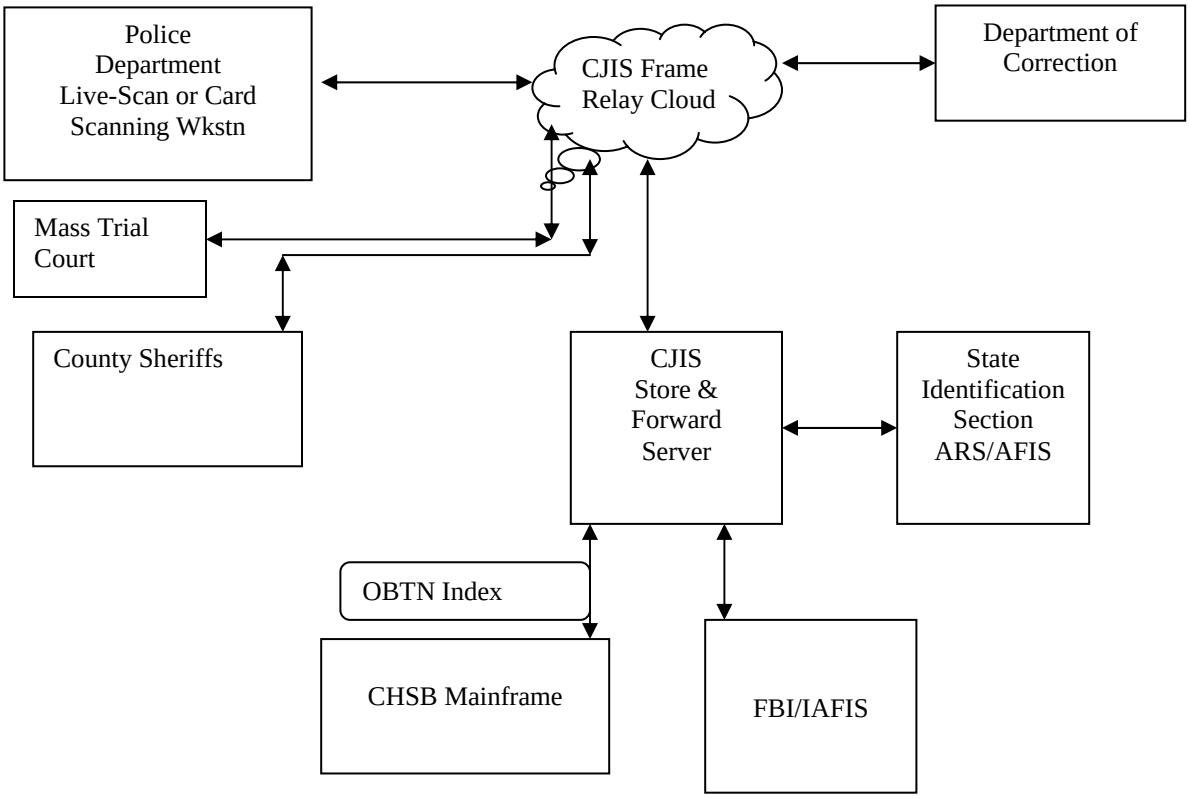
The electronic ten-print submissions will originate from live-scan booking terminals or card-scanning workstations at either state, county or municipal agencies. These transactions are electronically sent to the Store and Forward using the MEFTS standard. Specified data elements, such as the offender's name and Offense Based Tracking Number (OBTN) will be extracted by the Store and Forward device and placed in a central OBTN repository index. The Criminal Arrest Record (CAR) ten-print transaction is forwarded to the SIS for AFIS searching and processing.

Upon searching the AFIS, an electronic message is returned to the Store and Forward server and the OBTN index is updated with the offender's State Identification Number (SID), creating the positive link between arrest event and fingerprint records. Return messages to inquiring police departments and agencies will be passed through the Store and Forward server over the Commonwealth's CJIS WAN.

If an identification is made at the state level, an Ident response will be transmitted back to the local agency, and if it is a criterion offense, it is to be forwarded to the FBI.

If no identification is made, the data will be forwarded via the CJIS WAN to the FBI for processing by IAFIS. Transmitted data will be automatically edited and a subject search will be conducted. If no identification is made through comparison of candidates resulting from subject search, a fingerprint search will be executed through the IAFIS. The fingerprint images of any resulting file candidates will be compared to the search fingerprint images by FBI fingerprint examiners. Electronic responses from IAFIS to the contributor will be electronically routed via the CJIS WAN through the Commonwealth's Store and Forward to the State Identification Bureau (the ORI). Subsequent routing to the arresting agency is made by the Commonwealth's Store and Forward using the CRI. Additional copies are routed by the State Ident Bureau using the SCO or other related information.

CJIS Store & Forward Concept



There are three types of ten-print electronic submissions that are currently accepted by the Store and Forward. The particular type of submission is identified in the Type of Transaction (TOT) Field in the Type-1 record that is used with each transaction. The following are the TOTs for ten-print submissions:

TOT	TRANSACTION
CAR	Criminal Ten-Print Submission (Answer Required)
NFUF	Non-Federal Applicant User Fee
MAP	Miscellaneous Applicant Civil

The Store and Forward/FBI responses to electronic submissions will provide search results or indicate an error via the following TOTs:

TOT	RESPONSE TRANSACTION
SRE	Submission Results - Electronic
ERRT	Ten-Print Transaction Error

2.2 Type of Transaction Definitions

2.2.1 Criminal Ten-Print Submission (Answer Required) (CAR)

This transaction is a criminal arrest fingerprint submission for which the requester desires that a response be returned. It contains ten rolled and four plain impressions of all ten fingers, as well as information relative to an arrest, custody or supervisory status. The biographical data and fingerprint images are used to determine potential candidates with criminal records at the State Identification Section/AFIS and FBI. This TOT is also used for an inquiry on a criminal suspect or informant, in which case arrest, custody, or supervisory data may or may not be present (Retention Code set to "N"). Requirements for the use of the ASL and CSL fields in these cases is discussed in Appendix B. The fingerprint images of those candidates are then manually compared with those in the submission and an identification or non- identification decision is determined. The criminal records are updated (if the Retention Code is set to "Y") and a response is returned to the contributor. The response will always contain the Ident/Non-Ident decision, and will contain the electronic rap sheet if requested.

2.2.2 Non-Federal Applicant User Fee (NFUF)

These submissions are for non-criminal justice and licensing purposes in which the contributor is charged a fee. Examples of the types of contributors of this type of transaction are: federal and state banking institutions, regulatory agencies (such as stock exchanges, bankers' associations, securities dealers, Nuclear Regulatory Commission, Securities and Exchange Commission, racing or gaming control board, etc.). Their purpose for submitting such requests is to ascertain whether individuals who have applied for licensing or employment with their organizations have any past criminal histories.

2.2.3 Miscellaneous Applicant Civil (MAP)

These no-charge submissions are for non-federal law enforcement and criminal justice employment.

2.2.4 Submission Results — Electronic (SRE)

This transaction is returned by the state and FBI in response to ten-print submissions. The response will always contain the Ident/Non-Ident decision, and will contain the FBI electronic rap sheet if requested. A non-matching NAME is returned in the electronic rap sheet (ERS), if one was requested. The following fields, which are not stored in Store and Forward/IAFIS, are always returned exactly as submitted: ATN, SCO, EAD, OCP, RES, and TAA. A single electronic response will be sent to the contributor through the Commonwealth's Store and Forward system. In the case that circumstances delay processing a MEFTS/EFTS request, the requestor will receive a preliminary electronic response coded as a Non-Ident with an ERS. The ERS will contain a report explaining results are not available due to a delay. When they complete processing, the State/FBI will print a Non-Ident or Ident response report and mail it to the requestor.

Under certain circumstances, the SRE will contain Special Table Data (STD). For example, this would be included in an Non-Ident Report (NIDR) if an FBI/SID number was submitted. It would be included in an Ident Report (IDRR) if a submitted FBI/SID number did not match the FBI/SID number in the Master File for subject. It would be included in an IDRR or NIDR, as appropriate, if the Master File FBI number was marked expunged, deleted, or consolidated.

2.2.5 Ten Print Transaction Error (ERRT)

This transaction is returned by the Store and Forward/FBI to indicate a transaction error. It includes a message field (MSG) indicating the type of error detected. Currently defined error messages are detailed in Appendix H.

APPENDIX A

DESCRIPTORS AND FIELD EDIT SPECIFICATIONS FOR TYPE-1 LOGICAL RECORDS

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The following paragraphs describe the data contained in fields for the Type-1 logical record. Each field shall begin with the number of the record type, followed by a period, followed by the appropriate field number, followed by a colon. Multiple information items within a field or subfield shall be separated by the separator, multiple subfields shall be separated by the separator, and information fields shall be separated by the separator. Immediately following the last information field in the Type-1 logical record, a separator character shall be used to separate it from the next logical record. The information in this Section has been taken directly from the ANSI Standard, *Data Format for the Interchange of Fingerprint Information (ANSI/NIST-CSL 1-1993)* and its Addendum, *Data Format for the Interchange of Fingerprint, Facial & SMT Information (ANSI/NIST-ITL 1a-1997).* Any information that is underlined is the FBI-specific requirements.

1.01 Logical Record Length (LEN) This **mandatory** ASCII field shall contain the total count of the number of bytes in this Type-1 logical record. Field 1.01 shall begin with "1.01:", followed by the length of the record including every character of every field contained in the record and the information separators. The number of characters added to the record by the LEN field itself shall be included in calculating the value of LEN

1.02 Version Number (VER) This **mandatory** four-byte ASCII field shall be used to specify the version number of the ANSI Standard, *Data Format for the Interchange of Fingerprint Information,* implemented by the software or system creating the file. The format of this field shall consist of four numeric characters. The first two characters shall specify the major version number. The last two characters shall be used to specify the minor revision number. The initial revision number for a version shall be "00". The entry in this field for this 1993 approved standard shall be "0200". The original 1986 standard would be considered the first version or "0100". With the addition of the Type-10 logical record by the Addendum to the ANSI Standard, *Data Format for the Interchange of Fingerprint, Facial & SMT Information (ANSI/NIST-ITL 1a-1997),* the entry in this field shall be “0201".

1.03 File content (CNT) This **mandatory** field shall list each of the logical records in the logical file by record type. It also specifies the order in which the remaining logical records shall appear in the logical file. It shall consist of one or more subfields. Each subfield shall contain two information items describing a single logical record found in the current logical file. The subfields shall be entered in the same order in which the logical records shall be transmitted. When more than one subfield is used, the RS separator character shall be entered between the subfields. With the addition of the Type-10 record, the first information item of each subfield may now be a one- or two-digit integer (giving the logical record type.) The remaining edit specifications pertaining to CNT are unchanged.

The first subfield shall relate to this Type-1 transaction record. The first information item within this subfield shall be the single character indicating that this is a Type-1 record consisting of header information (the numeral "1" selected from the ANSI Standard Table 1).

The second information item of this subfield shall be the sum of the Type-2 plus Type-3 plus Type-4 plus Type-5 plus Type-6 plus Type-7 plus Type-8 plus Type-9 plus Type-10 records contained in this logical file. This number is also equal to the count of the remaining subfields of Field 1.03. The separator character shall be entered between the first and second information items (**Massachusetts currently processes Type 1, 2 and 4 records**).

The remaining subfields of Field 1.03 pertaining to Type-2, Type-3, Type-4, Type-5, Type-6, Type-7, Type-8, Type-9 and Type-10 records contained in the file shall each be comprised of two information items. The first information item shall be one or two characters chosen from one of the following: the ANSI Standard Table 1, or from the Addendum to the ANSI Standard Table 8, which states the record type. The second information item shall be the IDC associated with the logical record pertaining to that subfield. The IDC shall be a positive integer equal to or greater than zero. The character shall be used to separate the two information items. (Only Type-1, Type-2, Type-4, Type-7 Type-9 and Type-10 records will be accepted by the FBI.)

1.04 Type of Transaction (TOT) This **mandatory** field shall contain an identifier, designating the type of transaction and subsequent processing that this logical file should be given. Test and operational environments will be supported by the Store and Forward and IAFIS. A suffix of “T” added to the three- or four character TOT in the Type-1 record will immediately identify the environment as being a “test”. For example, CART specifies that a test of the Criminal Ten-print transaction (CAR) is being submitted. If there is no suffix of “T” then the TOT is operational.

1.05 Date (DAT) This **mandatory** field shall contain the date that the transaction was initiated. The date shall appear as eight digits in the format CCYYMMDD. The CCYY characters shall represent the year of the transaction; the MM characters shall be the tens and units values of the month; and the DD characters shall be the day in the month. For example, 19920601 represents June 1, 1992. The complete date shall not exceed the current date.

1.06 Transaction Priority (PRY) When this field is used, it shall contain a single information character to designate the urgency with which a response is desired. The values shall range from 1 to 4, with "1" denoting the highest priority. The default value shall be "4" if no value is indicated.

1.07 Destination Agency Identifier (DAI) This **mandatory** field shall contain the identifier of the administration or organization designated to receive the transmission. The size and data content of this field shall be defined by the user and be in accordance with the receiving agency. This field shall be a nine-byte alphanumeric field.

1.08 Originating Agency Identifier (ORI) This **mandatory** field shall contain the identifier of the administration or organization originating the transaction. The size and data content of this field shall be defined by the user and be in accordance with criteria specified by the receiving agency. For MEFTS purposes, this field shall be a nine-byte alphanumeric field. The first two characters shall be a valid POB code, and the entire ORI shall validate to an NCIC-authorized ORI. **Note:** In a submission to the FBI, the submitting agency (usually the State CTA) is the **ORI** and the FBI is the **DAI**, while the FBI's response to the submission will show the FBI as the **ORI** and the submitting agency as the **DAI**.

1.09 Transaction Control Number (TCN) This **mandatory** field shall contain the Transaction Control Number as assigned by the originating agency. A unique control number shall be assigned to each transaction. For any transaction that requires a response, the respondent shall refer to this number in communicating with the originating agency. This field shall be a ten-to-forty byte alphanumeric-special (ANS) field.

1.10 Transaction Control Reference (TCR) This field shall be used in responses only to refer to the Transaction Control Number of a previous transaction involving an inquiry or other action that required a response. This field is **mandatory** for such responses. This field shall be a ten-to-forty byte alphanumeric-special (ANS) field.

1.11 Native Scanning Resolution (NSR) This **mandatory** field shall specify the nominal scanning resolution of the AFIS or other image capture device supported by the originator of the transmission. This field permits the recipient of this transaction to send respond data at a transmitting resolution tailored to the NSR (if it is able to do so) or to the minimum scanning resolution. This field shall contain five bytes specifying the native scanning resolution in pixels per millimeter. The resolution shall be expressed as two numeric characters followed by a decimal point and two more numeric characters (e.g., 20.00). This field is needed because the interchange of fingerprint information between systems of the same manufacturer may, in some instances, be more efficiently done at a transmitting resolution equal to the native scanning resolution of the system rather than at the minimum scanning resolution specified in this standard. This field applies only to fingerprint image data. For those logical files that contain only Type-10 image records, this field shall be set to "00.00"

1.12 Nominal transmitting Resolution (NTR) This **mandatory** field shall specify the nominal transmitting resolution for the image or images being transmitted. This field shall contain five bytes specifying the transmitting resolution in pixels per millimeter. The resolution shall be expressed as two numeric characters followed by a decimal point and two more numeric characters (e.g., 20.00). The transmitting resolution shall be within the range specified by the transmitting resolution requirement. This field applies only to fingerprint image data. For those logical files that contain only Type-10 image records, this field shall be set to "00.00"(Massachusetts currently does not process Type 10 records).

TABLE A-1, FIELD LIST FOR TYPE-1 (TRANSACTION) LOGICAL RECORDS

IDENTIFIER	CONDITION	FIELD NUMBER	FIELD NAME	CHARACTER TYPE	FIELD SIZE PER OCCURRENCE		OCCURRENCES		MAXUMUM NUMBER OF BYTES INCLUDING CHARACTER SEPARATORS AND FIELD NUMBER	EXAMPLE DATA	**SPECIAL CHARACTERS ALLOWED**
					MIN.	MAX.	MIN.	MAX.			
LEN	M	1.01	LOGICAL RECORD LENGTH	N	2	3	1	1	9	1.01:230<GS>	
VER	M	1.02	VERSION	N	4	4	1	1	10	1.02:0200<GS>	
CNT	M	1.03	FILE CONTENT	N	9	48	1	1	54	1.03:1<US>15<RS>2<US>00<RS>4<US>01<RS>4<US>02<RS>4<US>03<RS>4<US>04<RS>4<US>05<RS>4<US>06<RS>4<US>07<RS>4<US>08<RS>4<US>09<RS>4<US>10<RS>4<US>11<RS>4<US>12<RS>4<US>13<RS>4<US>14<GS>	
TOT	M	1.04	TYPE OF TRANSACTION	A	3	5	1	1	11	1.04:CART<GS>	
DAT	M	1.05	DATE	N	8	8	1	1	14	1.05:19940925<GS>	
PRY	O	1.06	TRANSACTION PRIORITY	N	1	1	0	1	7	1.06:1<GS>	
DAI	M	1.07	DESTINATION AGENCY IDENTIFIER	AN	9	9	1	1	15	1.07:DCFBIWA6Z<GS>	
ORI	M	1.08	ORIGINATING AGENCY IDENTIFIER	AN	9	9	1	1	15	1.08:NY0303000<GS>	
TCN	M	1.09	TRANSACTION CONTROL NUMBER	ANS	10	40	1	1	46	1.09:1234567890<GS>	Any printable 7-bit ascii character is allowed.
TCR	O	1.10	TRANSACTION CONTROL REFERENCE	ANS	10	40	0	1	46	1.10:1234567890<GS>	Any printable 7-bit ascii character is allowed.
NSR	M	1.11	NATIVE SCANNING RESOLUTION	NS	5	5	1	1	11	1.11:20.00<GS>	Period
NTR	M	1.12	NOMINAL TRANSMITTING RESOLUTION	NS	5	5	1	1	11	1.12:20.00<FS>	Period

Under the condition column: O = Optional; M = Mandatory; C = Conditional, see notes Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Character

APPENDIX B

DESCRIPTORS AND FIELD EDIT SPECIFICATIONS FOR TYPE-2 LOGICAL RECORDS

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DESCRIPTORS AND FIELD EDIT SPECIFICATIONS FOR TYPE-2 LOGICAL RECORDS

1.0 User-Defined Data

Some Type-2 elements have their origins as contributor-supplied data. User-defined data is that subset of contributor-supplied data that will not be stored in the Commonwealth Store and Forward/AFIS or IAFIS files for later search or retrieval purposes. User-defined data will not be validated (with several exceptions), and therefore may in general consist of any printable 7-bit ASCII character: i.e. *free text*. This includes the ASCII (decimal) codes 07 (BEL) through 13 (CR) and 32 (SP) through 127 (DEL), inclusive. Separator characters are not part of the printable character set.

The following list gives those Type-2 elements which the State and FBI treat as being user-defined: ATN, SCO, OCA, SID, OCP, EAD, RES, CRI, IMA, TAA. In this list, SID and CRI may not always be free-text. In criminal transactions, these fields must contain valid formats, as specified further in this appendix. Occasional other restrictions are specified as required in this data dictionary. If the contributor supplies data in any of these fields in a submission or search, that data will be returned in the corresponding response.

The RAP, RET, REC, TAA, and ULF are flag fields taking values positive = "Y" and negative = "N". The negative value should not, in general, be submitted unless otherwise described in a specific definition.

1.1 Date Fields

MEFTS transactions will be Y2K compliant. Date fields are in accordance with that requirement. In general, the format for date fields is the following:

A date is shown as an 8-digit numeric field of the format CCYYMMDD, where

CC (Century) must be 19 or 20
YY (Year) must be 00 to 99
MM (Month) must be 01 to 12
DD (Day) must be 01 to the limit defined by the month and year (e.g., DD may be 29 for MM = 02 in Leap Years)

For example 19921201 represents December 1, 1992.

Since dates find a variety of uses in MEFTS transactions, each use may have specific format restrictions or special edits. For specific format restrictions or special edits, see the individual date field entries in this Appendix.

1.2 Data Dictionary

ACN 2.071 - ACTION TO BE TAKEN. This field is used to include text answers to submission requests to indicate that a latent case will be established or to indicate recommendations for further actions in either latent or ten-print responses. Commas, hyphens, ampersands, slashes, number signs, and blanks are all allowed as special characters.

AGR 2.023 - AGE RANGE. An estimated age range may be entered using a pair of two-digit numbers. The first two digits shall represent the minimum age, and the second two the maximum. There shall be no separator character used between the ages.

AKA 2.019 - ALIASES. This 3-to-30 alpha-numeric special (ANS) field contains alias names of the subject. Up to ten aliases may be provided, separated from one another by the character. AKA may contain a comma, hyphen, or blank as special characters. The format shall be the surname followed by a comma (,), followed by the given name(s) separated by a space. The following restrictions and exceptions to the general format apply:

1. Minimum length is three bytes in the following sequence: alpha or ampersand, comma, alpha.
2. A comma must be followed by the minimum of one alpha character.
3. Blank before or after comma is invalid.
4. Hyphen in first and last position of any name segment is invalid.
5. Two consecutive blanks or hyphens between characters are invalid.

AMP 2.084 - AMPUTATED OR BANDAGED. This grouped field contains information about amputated or bandaged fingerprints in an MEFTS submission. It is comprised of two subfields, Finger Number (**FGP**), and Amputated Or Bandaged Code (**AMPCD**). The two-character finger position code is followed by the separator and the amputated or bandaged code. Multiple fingers shall be separated by the separator. This field is to be used anytime there are fewer than ten printable fingers in a ten-print submission. A partially scarred finger should be printed. If the forwarding agency is not sure of the reason a finger's image is missing (for example, when the arresting agency did not specify a reason in its submission to the State Ident Bureau), the "UP" code should be used.

Two characters represent each finger number as follows:

Finger Position	FGP
Right thumb	01
Right index	02
Right middle	03
Right ring	04
Right little	05
Left thumb	06
Left index	07

Left middle	08
Left ring	09
Left little	10

The following is a list of allowable indicators for the AMPCD:

Descriptor	AMPCD
Amputation	XX
Unable to print (e.g., bandaged)	UP

The following example indicates that the third finger is amputated and that the submitter did not, or was unable to, supply a print of the ninth finger.

2.084:03XX09UP

ASL 2.047- ARREST SEGMENT LITERAL. This field is made up of the Date of Offense (**DOO**) and the Arrest Offense Literal (**AOL**). The AOL is free text description of an offense charged on an arrest. The first character of the AOL text must not be blank. Each AOL should have a corresponding date (DOO), if available. The DOO shall appear as an eight-digit number as specified in Section 1.1 of this appendix. The complete date shall not exceed the current date. Up to 40 occurrences of the ASL are allowed. Each occurrence of the ASL shall be separated by the separator character. The DOO shall be separated from the AOL by the separator character. A DOO is prohibited without a corresponding AOL offense. If a DOO is not present, a character separator shall still be used.

The following is an example of more than one occurrence of the AOL field using DOO:

2.047:19940915DUI19940920POSSESSION OF FIREARMS

ATN 2.006 - "ATTENTION" INDICATOR. This alphanumeric-special field shall contain a designation of the individual to whose attention a response is to be directed. Periods shall not be used (e.g., Det. J. Q. Public shall be entered as DET J Q PUBLIC). The value of ATN returned to the submitter is the value submitted.

CAN 2.064- CANDIDATE LIST. This grouped field shall contain a candidate list. It is comprised of two subfields: FBI number (**FNU**), and Name (**NAM**), separated by a separator, will be provided for each candidate in the list. Commas, hyphens and blanks are allowed in the NAM subfield, as specified in the NCIC Code Manual. Each FBI number and name set shall be separated from the next by the separator character.

CFS 2.077 - CANCEL FINGERPRINT SEARCH. This field will contain the information required to cancel a latent FP search previously submitted to the Commonwealth's Store and Forward/AFIS or IAFIS. This field will contain unique identifier numbers (AFIS/FBI uses the

AFIS Segment Process Control Number) for all searches to be canceled. The response to this request will contain the same information for all searches that were canceled. Only searches which are still pending will be canceled (searches completed or in-progress may not be canceled**). Massachusetts does not currently process Type 9 records.**

CIN 2.010 - CONTRIBUTOR CASE IDENTIFIER NUMBER. This grouped free-text field is a 48-byte (maximum) alphanumeric-special assigned by the contributor to uniquely identify a latent case. It consists of a literal subfield Contributor Case Prefix (**CIN_PRE**) of up to 24 characters (e.g., "Incident #", "Laboratory Number:", "Investigation No."), followed by the separator and the Contributor Case Identifier subfield (**CIN_ID**) of up to 24 characters.

CIX 2.011 - CONTRIBUTOR CASE IDENTIFIER EXTENSION. This field is a two-byte to four-byte numeric supplement to the Case Identifier Number that allows multiple searches to be associated with the same case. The **CIX** shall be used only in conjunction with the **CIN**.

CMT 2.381-ADDITIONAL COMMENTS. This is a 255 character alpha-numeric field used to add any additional information that might be necessary. This is a Massachusetts specific data field.

CRI 2.073 - CONTROLLING AGENCY IDENTIFIER. In Criminal transactions, the first instance of this one-to-nine byte field shall contain the originating agency identifier (ORI) of the organization controlling the transaction when that organization is different than the one submitting the transaction (e.g. state CTA). When the controlling agency has the same ORI as the CTA, both the ORI and CRI fields shall be submitted with the same identifier. In criminal transactions, the **CRI** will usually refer to the booking station that has submitted the subject's fingerprint card or photo to be transmitted through the CTA to the FBI. For Civil submissions, this free-text field is user defined. The FBI uses the first instance of CRI in any transaction that would modify criminal records as the authority to do so. If in a Civil transaction there is a criminal IDENT against the subject and the first instance of the submitted CRI is not an authorized ORI, the ORI of the State Ident Bureau that submitted the transaction will be used in its stead. The second and third instances of CRI, when sent, are treated as user defined fields. (See also Appendix A for definitions of **ORI** and **DAI**.) CRI returned is otherwise the same as was submitted unless the submitting agency has used a deleted CRI, in which case its replacement will be used.

CRN 2.085 - CIVIL RECORD NUMBER. A unique identifier assigned to each Civil Subject Record.

CSL 2.051 - COURT SEGMENT LITERAL. The CSL field is made up of the Court Disposition Date (CDD), the Court Offense Literal (COL), and the Other Court Sentence Provision Literal (CPL). The CDD is the date a court count was disposed of by the court. The **CDD** shall appear as an eight-digit number as specified in Section 1.1 of this appendix. The complete date shall not exceed the current date. The **COL** contains free text description of an offense charged in a court count. The first character of the COL must not be a 'blank'. The **CPL** contains free-text information on sentence provisions. Up to 40 occurrences of the CSL are

allowed. Each occurrence of the CSL shall be separated by the separator character. A CDD (if available), followed by a COL, followed by a CPL each separated by a separator character must be present for each occurrence of the CSL field. If the CDD is not available, a separator character alone shall be used immediately after the field tag or preceding separator character. The **COL** is always mandatory. When a provision (**CPL)** is included, then the date the provision was made **(CDD)** may optionally be given.

The following is an example of the CSL with multiple occurrences:

2.050:19940930DUI5 DAYS JAIL, PAY COURT COSTS19940930POSSESSION OF FIREARMS10 DAYS JAIL, PAY COURT COSTS, $50

The following is an example of the CSL when the first of two CDDs was not available:

2.050:DUI5 DAYS JAIL, PAY COURT COSTS19940930POSSESSION OF FIREARMS10 DAYS JAIL, PAY COURT COSTS, $50

When submitting a custody Ten-print, use this field for custody information. In the event that there is no arrest information available when submitting a custody Ten-print, the **COL** and **CDD** must be copied to the corresponding **AOL** and **DOO** fields of the Arrest Segment Literal (**ASL**), which is mandatory in all criminal Ten-print submissions.

CSR 2.048 - CIVIL SEARCH REQUESTED INDICATOR. This field shall contain a "Y" if a search of the Civil File is desired at the completion of Criminal File search.

CST 2.061 - CASE TITLE. This field identifies the Latent Case. It will include information concerning the case and it must include the offense type.

CTZ 2.021 - COUNTRY OF CITIZENSHIP. This field contains the name of the country of which the subject is a citizen. Entry must be a valid country code from Code Table POB in Part IV of the NCIC Code Manual.

DOA 2.045 - DATE OF ARREST. This field contains the date of arrest. The date shall appear as an eight-digit number in the same format as specified as specified in Section 1.1 of this appendix. DOA shall not exceed date of submission after Time-Zone adjustment.

DOB 2.022 - DATE OF BIRTH. This field contains the date of birth. It is entered as an eight-digit number in the same format as specified as specified in Section 1.2 of this Appendix. DOB is completely unknown, enter as 00000000. Partial DOBs are not allowed. DOB shall not exceed date of submission after Time-Zone adjustment.

DOS 2.046 - DATE OF ARREST - SUFFIX. This field contains a code representing the sequence of the subject's arrests within a given date. The code also indicates the type of fingerprint card on which the Date of Arrest was contained. This field is for internal use within the FBI only.

DPR 2.038 - DATE PRINTED. This mandatory field contains the date that the subject was fingerprinted. The format shall be the same as that specified in Section 1.1 of this appendix. DPR shall not exceed date of submission after Time-Zone adjustment.

EAD 2.039- EMPLOYER AND ADDRESS. The name and address of the subject's primary employer may be entered into this free-text field. The EAD returned in a response is the same as the one submitted.

ERS 2.075 - ELECTRONIC RAP SHEET. This field shall contain the electronic rap sheet. The electronic rap sheet is an electronic copy of the Identification Record Report (IDRR) or the Non-Identification Response (NIDR) as are done today. The electronic rap sheet shall consist of lines with a maximum of 74 characters per line (text of 72 plus 2 line control characters).

ETC 2.069 - ESTIMATED TIME TO COMPLETE. The estimated time to complete a search or multiple searches for a Latent Search Status and Modification Query may be entered into this field. This one-to-four byte field will contain the estimated search completion time in minutes up to five days.

EXP 2.080 - RESPONSE EXPLANATION. This field is free-form text to elaborate on the RESPONSE CODE field.

EYE 2.031- COLOR EYES. For this field, the three-letter code from the following table is used to indicate the subject's color of eyes.

Eye Color	Code
Black	BLK
Blue	BLU
Brown	BRO
Gray	GRY
Green	GRN
Hazel	HAZ
Maroon	MAR
Multicolored	MUL
Pink	PNK
Unknown	XXX

FBI - 2.014 FBI NUMBER. This field contains the subject's FBI number, if known. A valid FBI number shall be no more than nine alphanumeric characters. The FBI number returned in a response is dependent upon the search results.

FFN - 2.003 FBI FILE NUMBER. This is a 10-byte numeric representing the FBI Investigative File Number. This is not the FBI Number specified by the mnemonic "FBI." Since it is used for FBI LFPS record keeping purposes, it is imperative that the remote user transmit this number if it is known.

FGP 2.074 - FINGER POSITION. This field is used for latent submissions and remote searches and contains the fingerprint position code of the latent print(s) submitted. The following table is the finger position and code table:

Finger Position	Code
Unknown or "ALL"	00
Right thumb	01
Right index	02
Right middle	03
Right ring	04
Right little	05
Left thumb	06
Left index	07
Left middle	08
Left ring	09
Left little	10

If more than one finger is submitted, the codes will be separated by the character separator. For remote latent searches, if multiple fingerprint images are included in one search, finger position is mandatory for all images. If finger position is unknown, the search may contain only a single image, and the field FGP will be omitted, or may contain multiple guesses at the correct finger position in the FGP field. In this case the PAT field must contain "00" in its Finger Number subfield to indicate that the actual position is unknown (see also PAT entry).

FIU 2.072 - FINGERPRINT IMAGE(S) UPDATED. This alphanumeric field contains the finger positions that were updated in the FBI's Fingerprint Image Master File as a result of an electronic request to update fingerprint images. The finger numbers for which image information is requested are selected from Table 5, Finger Position Code, in Section 10 of "ANSI NIST-CSL 1-1993." Up to 13 individual finger numbers may be listed, separated from one another by the separator. If images of all 14 fingers were updated, the single character "A" is shown instead of individual finger numbers. If no images were updated, an "N" will be returned.

FNR 2.057- FINGER NUMBER(S) REQUESTED. This numeric field is used in transactions involving a request for fingerprint image information. The finger numbers for which image information is requested are selected from Table 5, Finger Position Code, in Section 10 of "ANSI NIST-CSL 1-1993." Up to 13 individual finger image numbers may be listed, separated from one another by the separator. If all 14 ten-print images are desired, 00 is shown instead of individual finger numbers. For transactions which allow only the ten rolled fingerprint images, when all ten images are desired, list each one separately, as 01 02 … 10.

FPC 2.033 - NCIC FINGERPRINT CLASSIFICATION. If available, the NCIC fingerprint classification will be returned in the FBI's responses to latent submissions.

The NCIC FPC is comprised of 20 characters. Two characters represent each finger as follows:

Positions	Finger
1 and 2	Right thumb
3 and 4	Right index
5 and 6	Right middle
7 and 8	Right ring
9 and 10	Right little
11 and 12	Left thumb
13 and 14	Left index
15 and 16	Left middle
17 and 18	Left ring
19 and 20	Left little

The following codes apply:

Pattern Type	Pattern Subgroup	NCIC FPC Code
Arch	Plain Arch	AA
	Tented Arch	TT
Loop	Radial Loop	Two numeric characters. Determine actual ridge count and add fifty (50). For example, if the ridge count of a radial loop is 16, add 50 to 16 for a sum of 66. Enter this sum (66) in the appropriate finger position of the FPC field.
Loop	Ulnar Loop	Two numeric characters indicating actual ridge count (less than 50). For example, a ridge count of 14, enter as 14; a ridge count of 9, enter as 09.
Whorl*	Plain Whorl	
	Inner	PI
	Meeting	PM
	Outer	PO
	Central Pocket Loop Whorl	
	Inner	CI
	Meeting	CM
	Outer	CO
	Double Loop Whorl	
	Inner	DI
	Meeting	DM
	Outer	DO

Accidental Whorl	
Inner	XI
Meeting	XM
Outer	XO
Missing/Amputated Finger**	XX
Scarred/Mutilated Pattern***	SR
Approximate Fingerprint Class****	AC
Unclassifiable****	UC

The NCIC FPC for a set of fingerprints made up of all ulnar loops might read:

2.033:12101116141109111713
A combination of loops and whorls with an amputated right index finger might read:

2.033:12XX11CO14115906Cl13

- Prior to adoption of the above method for coding whorl patterns, this pattern was divided into inner, meeting, and outer subgroups only with codes II, MM, and OO, respectively. Some older records in file may show the codes II, MM, and OO.

** Code XX is used in instances of missing and totally/partly amputated fingers where conditions make it impossible to accurately classify an impression according to the above instructions for NCIC FPC. It is recognized that under the Henry System, if a finger is missing or amputated, it is given a classification identical to the opposite finger; however, this must not be done in the NCIC FPC since the location of finger or fingers missing/amputated is not indicated.

*** Code SR is used in instances in which the fingerprint cannot be accurately classified because of complete scarring or mutilation and a classifiable print cannot be obtained. As in the case of missing and amputated fingers, the procedure for assigning the classification of the opposite finger, as is done under the Henry System, should not be used for the NCIC FPC.

**** Codes UC and AC still exist for some legacy records in the Criminal History file.

Refer to the NCIC Code Manual, 4-28, for the FPC Field for Unidentified Persons.

FPO 2.380- FINGERPRINT OFFICIAL. This is a 3-30 character alpha-special field that is used for the name of person taking fingerprints and the department or agency name. Commas, hyphens and blanks are allowed as special characters. This is a Massachusetts specific data field.

GEO 2.044 - GEOGRAPHIC AREA OF SEARCH. This field indicates the geographic area to be searched. Entry may be any valid code from Code Table POB in Part VI of the NCIC Code Manual. Each GEO shall be separated from the next by the separator character. If inclusion of all 50 states is desired, this field shall remain blank.

HAI 2.032 - HAIR COLOR. In this field, the three-letter code from the following table is used to indicate the subject's color of hair.

Hair Color	Code
Bald	BAL
Black	BLK
Blond or Strawberry	BLN
Brown	BRO
Gray or Partially Gray	GRY
Red or Auburn	RED
Sandy	SDY
White	WHI
Unknown	XXX
Blue	BLU
Green	GRN
Orange	ONG
Pink	PNK
Purple	PLE

HGT 2.027 - HEIGHT. This field contains the subject's height as a three-character value. If reported in feet and inches, the first (leftmost) digit is used to show feet while the two rightmost digits are used to show the inches between 00 and 11. If reported in inches, the leftmost character is "N" followed by two digits. If height is unknown, 000 is entered. The allowable range is 400 to 711. Heights outside this range will be clamped at these limits.

HTR 2.028 - HEIGHT RANGE. If a range of height is given, it shall be expressed as two three-character values formatted as described for mnemonic **HGT**, indicating the shortest and tallest heights of the subject. There shall be no separator character used between the heights. The allowable range is 400 to 711. Heights outside this range will be clamped at these limits.

ICO 2.056 - IDENTIFICATION COMMENTS. Additional miscellaneous identification remarks providing the reason for caution may be entered in this free-text field. The first character may not be a blank.

IDC 2.002 - IMAGE DESIGNATION CHARACTER. This mandatory field shall be used to identify the user-defined text information contained in this record. The IDC contained in this field shall be the IDC of the Type-2 logical record as found in the file content field of the Type-1 record.

IMA 2.067 - IMAGE CAPTURE EQUIPMENT. This free text field is used to log the make, model, and serial number of the equipment used to acquire images. It is a grouped field, comprised of three subfields: the Make (**MAK**), Model (**MODL**), and Serial Number (**SERNO**) of the acquisition device, separated by the separator character.

IMT 2.062 - IMAGE TYPE. This field identifies the type of image (e.g., palm prints, toe prints) included in an electronic submittal. The following is a list of **IMT** values to be used in an electronic latent submittal to identify the Type-7 record (s) present:

Fingerprint	1
Lower Joint	2
Palm Print	3
Toe Print	4
Foot Print	5

LCN 2.012 - FBI LATENT CASE NUMBER. This field is an 11-byte alphanumeric/special assigned by the FBI LFPS and used for record keeping purposes. Although the field is optional, it is imperative that the remote user transmit this number if it is known.

LCX 2.013 - LATENT CASE NUMBER EXTENSION. Defines extensions assigned by the FBI for each submission related to a Latent Case Number. The LCX shall be a four digit extension starting with "0001" for the first submission and incrementing by one for each subsequent submission. The **LCX** shall be used only in conjunction with **LCN**.

LEN 2.001 - LOGICAL RECORD LENGTH. This field contains the length of the logical record specifying the total number of bytes, including every character of every field contained in the record. The number of characters added to the record by the LEN field itself shall be included in calculating the value of LEN.

MIL 2.042 - MILITARY CODE. A one-letter code from the following table shall be entered in this field to indicate which branch of the United States Military submitted the transaction.

Military Branch	Code
Army	A
Air Force	F
Navy	N
Marines	M
Coast Guard	G

MNU 2.017 - MISCELLANEOUS IDENTIFICATION NUMBER. If there are any miscellaneous identification numbers, they shall be entered in this field. The format of the data shall be a two-letter identifying code, followed by a hyphen (-), followed by the number itself. The following table lists the acceptable two-letter identifying codes. If “AF” or “AS” is entered, all characters following the hyphen must be numeric. Interspersed blanks are invalid. Types of numbers not listed in the following table (such as driver's license) shall not be entered. Only U. S. passport numbers shall be entered; foreign numbers shall be ignored. The size of the MNU is limited to 15 characters. As many as four miscellaneous numbers may be included in this field. Each MNU shall be separated from the next by the separator character.

Identifying Agency	Code
Air Force Serial Number	AF
Alien Registration Number	AR
Air National Guard Serial Number, Army Serial Number, National Guard Serial Number	AS
Bureau Fugitive Index Number	BF
Canadian Social Insurance Number	CI
U. S. Coast Guard Serial Number	CG
Identification Order Number	IO
Marine Corps Serial Number	MC
Mariner's Document or Identification Number	MD
RCMP Identification or Fingerprint Section Number	MP
National Agency Case Number	NA
Navy Serial Number	NS
Passport Number (U.S. Only)	PP
Port Security Card Number	PS
Selective Service Number	SS
Veterans Administration Claim Number	VA

MSC 2.089 - MATCHSCORE. Defines the match score of a fingerprint from AFIS for a candidate list response.

MSG 2.060 - STATUS/ERROR MESSAGE. This free-text field will contain reason, status or error messages that are generated as a result of the processing of a transaction and will be sent back to the submitter. For example, an Unsolicited Unsolved Latent Delete transaction will contain the reason for the deletion of a record. Each message will be separated by the separator character.

NAM 2.018 - NAME. This alpha-special field contains the name(s) of the subject. The format shall be the surname followed by a comma (,) followed by the given name(s), which are separated by a space. Part IV of the NCIC Code Manual describes in greater detail the manner in which each name is to be entered. Hyphens, commas, and blanks are all allowed as special characters. Numerics are not allowed. Special values of NAM, to be entered in cases where the subject's name is not known, are:

Condition	Name Field Value
Amnesia Victim:	"UNKNOWN AMNESIA, XX"
Unknown Deceased:	"UNKNOWN DECEASED, XX"
Name Not Available (Other)	"DOE, JOHN" or "DOE, JANE"

NCR 2.079 - NUMBER OF CANDIDATES' IMAGES RETURNED. This field contains the maximum number of candidates (images) the submitter desires to receive in response to a latent image or features search. If the field is left blank, only images for the highest scoring candidate will be returned. The maximum value of NCR is currently 20. (24)

NOT 2.088 - NOTE FIELD. This free-text field is used to provide additional information regarding electronic latent submissions.

OBT 2.382-OFFENSE BASED TRACKING NUMBER. This mandatory 13 character alpha-numeric field will be used to store the offense based tracking number. This is a Massachusetts specific data field.

OCA 2.009 - ORIGINATING AGENCY CASE NUMBER. This field contains the one to twenty character Originating Agency Case Identifier (OCA) that has been assigned by the originating agency. This alphanumeric-special (ANS) field may contain any printable 7-bit ASCII character with the exception of the period (“.”). The length of the OCA field submitted varies by category of transaction: The length of OCA should be 10 characters for CRIMINAL transactions, and 15 for CIVIL. OCA must not begin with a blank.

OCP 2.040 - OCCUPATION. This free text field contains the subject’s occupation. The OCP returned in a response is the same as the one submitted.

OFC 2.053 - OFFENSE CATEGORY. This field shall contain a “1” for a crime categorized as personal, a "2" for one categorized as property, and a "3" for one categorized as both.

PAT 2.034 - Pattern Level Classifications. This grouped field contains information about the finger(s) pattern types. It is comprised of two subfields, Finger Number (**FGP**), and Pattern Classification Code (**PATCL**). The two-character finger position code followed by the separator and the primary pattern type code as chosen from the following table. Up to two reference pattern classifications per finger are also allowed, thereby making the total number of pattern classes allowable per finger equal to three. If multiple pattern types are used for reference for the same finger, they shall be separated from each other by the separator. Multiple fingers shall be separated by the separator. If submitting a Latent Fingerprint whose actual finger position is unknown, the PAT and FGP (2.074) fields are used in conjunction as follows to supply guesses for which finger position the Latent print might be: place a “00" in the FGP subfield of PAT to indicate the actual position is unknown; place the actual pattern in the PATCL subfield; place one or more finger number guesses in the FGP field (2.074).

Two characters represent each finger as follows:

Finger Position	Code
Right thumb	01
Right index	02
Right middle	03
Right ring	04
Right little	05
Left thumb	06
Left index	07
Left middle	08
Left ring	09
Left little	10

The following is a list of acceptable IAFIS pattern level fingerprint classifications.

Pattern	Code
Arch, Type Not Designated	AU
Whorl, Type Not Designated	WU
Right Slant Loop	RS
Left Slant Loop	LS
Complete Scar	SR
Amputation	XX
Unable to print (e.g. bandaged)	UP
Unable to Classify	UC

The following is an example of the Pattern Level Classification field with only one pattern per finger:

2.034:01WU02LS03LS04LS05LS06RS07RS08LS09RS10RS

The following is an example of the Pattern Level Classification field with extra pattern references for some of the fingers:

2.034:01RSWUAU02RSAUWU03WU04RS05WU06LS
07WU08AU09AU10WUAU

PEN 2.078 - PENETRATION QUERY RESPONSE. This field provides a response to the penetration query that includes a set of search parameters for a new search. The response will be an estimated size, in percentage, of the repository that will be searched given the input parameters.

PHT 2.036 - "PHOTO AVAILABLE" INDICATOR. If a photograph of the subject is available, this field shall contain a "Y"; otherwise, the field shall be omitted.

POB 2.020 - PLACE OF BIRTH. The subject's place of birth shall be entered in this field. Indicate in this POB field the state (Mexican, United States), territorial possession, province (Canadian), or country of birth. The appropriate two-letter abbreviation shall be used as listed in Part IV of the NCIC Code Manual. The criteria listed below shall also be considered when assigning POB:

If the following condition exists:	Enter Code:
POB stated as state AND country and applicable code not contained in Code Table; OR city can be ascertained as not being located in the United States; OR foreign POB and applicable code not contained in Code Table	YY
POB stated as only city AND city can be ascertained as being located in the United States	US
POB is Mexico or any Mexican state or province not in Code Table	MM
POB is "Mexico, Mexico"	MX
POB is unknown	XX

PPA 2.035 - "PALM PRINTS AVAILABLE" INDICATOR. If palm prints are available, this field shall contain a "Y"; otherwise, the field shall be omitted.

PRI 2.076 - PRIORITY. This field shall indicate the priority of a latent search (from 1 to 3, with 1 the highest priority). The priority levels will generally correspond to the following crime types in descending order of priority:

- Homicide, rape, and special circumstances
- Kidnap, assault, and robbery
- Arson, drugs, personal crimes, and property crimes

Federal agencies will determine their own priority schemes. No additional validation of priorities will be provided. IAFIS will not interrupt searches in progress upon receipt of higher priority searches.

PTD 2.063 - PERSON TYPE DESIGNATOR. This field is used in the submittal of comparison fingerprints and it indicates that the fingerprints belong to a victim, suspect, individual with legitimate access to the object, or other individuals involved in the latent case. The following codes will be used:

Code	Designation
S	Suspect
V	Victim
E	Elimination
O	Other

QDD 2.004 - QUERY DEPTH OF DETAIL. This field is used to define the scope of the Latent Queue Management Query. The defined levels can be at the State level ("S"), at the ORI level ("O"), or at the Case level ("C").

RAC 2.025 - RACE. This field is used to indicate the race of the subject. Use the predominant race code from the following table:

If Subject Is	Enter Code
Chinese, Japanese, Filipino, Korean, Polynesian, Indian, Indonesian, Asian Indian, Samoan, or any other Pacific Islander	A
A person having origins in any of the black racial groups of Africa	B
American Indian, Eskimo, or Alaskan native, or a person having origins in any of the 48 contiguous states of the United States or Alaska who maintains cultural identification through tribal affiliation or community recognition	I
Of indeterminable race	U
Caucasian, Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race	W

RAP 2.070 - REQUEST FOR ELECTRONIC RAP SHEET. The purpose of this field is to allow the contributors to optionally request an electronic rap sheet of the suspect. That rap sheet will be an IDRR if an Ident was made, and an NIDR if the submission resulted in a Non-Ident. A "Y" indicates that a rap sheet is desired and an omitted field or an “N” indicates that no electronic rap sheet should be returned with the response.

RCD1 2.091 - Ridge Core Delta One for Subpattern Classification. This grouped field contains information about the finger(s) ridge counts and is used for Remote Native Mode Searches in conjunction with the Pattern Level Classification (PAT - 2.034). It is comprised of two subfields, Finger Number (**FGP**), and Ridge Count Number 1 (**RCN1**). The two-character finger position code as specified for the related Pattern Level Classification (PAT) is followed by the separator and at least one RCN1. Each pattern classification PATCL specified in the tagged field 2.034 must be accompanied by two ridge count indicators, one in RCD1 (2.091) and one in RCD2 (2.092) as described in the table provided with RCD2. If multiple RCN1s are used for reference to the same finger, then they shall be separated from each other by the separator. Multiple fingers, if provided, shall be separated by the separator.

RCD2 2.092 - Ridge Core Delta Two for Subpattern Classification. This grouped field contains information about the finger(s) ridge counts and is used for Remote Native Mode Searches in conjunction with the Pattern Level Classification (PAT - 2.034). It is comprised of two subfields, Finger Number (**FGP**), and Ridge Count Number 2 (**RCN2**). The two-character finger position code as specified for the related Pattern Level Classification (PAT) is followed by the separator and at least one RCN2. Each pattern classification PATCL specified in the tagged field 2.034 must be accompanied by two ridge count indicators, one in RCD1 and one in RCD2 as described in the following table. If multiple RCN2s are used for reference to the same finger, then they shall be separated from each other by the separator. Multiple fingers, if provided, shall be separated by the separator.

The Ridge Count Number (RCN1 and RCN2) represents the number of ridges between the core and the delta. For right and left slant loops, this count identifies the ridges crossed on a line between the core and the delta. For Whorls, both the RCN1 and the RCN2 values have meaning. Permissible values are 1 to 30 for actual ridge counts and 30 if there are more than 30 ridges. The count of 31 indicates an unknown number of ridges and 0 indicates that the ridge count is not applicable.

The following is a list of acceptable IAFIS pattern level fingerprint classifications and the allowable ridge count ranges for each.

Pattern	Code	Ridge Count 1	Ridge Count 2
Arch, Type Not Designated	AU	0	0
Whorl, Type Not Designated	WU	1-31	1-31
Right Slant Loop	RS	1-31	0
Left Slant Loop	LS	1-31	0
Complete Scar	SR	0	0
Amputation	XX	0	0
Unable to print (e.g., bandaged)	UP	0	0
Unable to Classify	UC	0	0

The following example shows the relationship between the Pattern Level Classification (2.034), Ridge Core Delta 1 (2.091) and Ridge Core Delta 2 (2.092) fields, where only the primary classification for each finger is given. In this case, one PATCL, one RCN1 and one RCN2 are associated with each finger. Spaces are shown for clarity only.

2.034:01	WU		02	LS		03	AU		04	XX	...		10	WU
2.091:01	9		02	4		03	0	04	0	...		10	14	
2.092:01	7		02	0		03	0	04	0	...		10	21	

The following example of the Pattern Classification (2.034) field includes two reference classifications for finger 01, only a primary classification for finger 07, and one reference classification for finger 09. Each PATCL in 2.034 requires a corresponding RCN1 and RCN2 in fields 2.091 and 2.092. Spaces are shown for clarity only.

2.034:01	RS	WU	AU	07	XX	09	AU	LS	
2.091:01	9	9	0	07	0		09	0	8
2.092:01	0	11	0	07	0		09	0	0

REC 2.082 - RESPONSE CODE. A one-byte alpha field with allowable values of “Y” or “N”. This field is used in the PDR and PRR transactions to indicate the status of the corresponding request. If the request contains any errors, the response code (REC) will be set to “N”. Otherwise it will be set to “Y”.

RES 2.041 - RESIDENCE OF PERSON FINGERPRINTED. The subject’s residential address may be entered in this field as free text, including printable special characters and formatting characters (CR, LF, TAB). The RES returned in a response is the same as the one submitted.

RET 2.005 - RETENTION CODE. This is an alpha field indicating whether the arrest information submitted as a part of a transaction (either electronic or hard copy) is to be retained as a permanent part of the FBI’s Criminal Master File. Submit a “Y” for yes, an “N” for no. For Civil submissions, RET is used to indicate whether the civil submission is to be retained in the civil files. In the case where a Criminal Ident was made against the Criminal File in a Civil Submission (irrespective of the value of RET), under some conditions the record is retained as a Civil Cycle in that Criminal record.

RFP 2.037 - REASON FINGERPRINTED. This alphanumeric-special field is used to indicate the purpose of a civil or applicant fingerprint card submission. This field will indicate if the card is submitted for licensing, gun permit, or criminal justice employment, non-criminal justice employment, adoption, naturalization, volunteer background checks, gaming certification, and others under State control. Commas, blanks, dashes, hyphens and slashes are all allowed as special characters.

RSR 2.065 - REPOSITORY STATISTICS RESPONSE. This field contains a file generated by the AFIS that provides the detailed statistics that can be used to estimate the level of penetration of the repository given a set of search parameters defined in the search request. This field is in the form of a large ASCII file which can contain up to 32000 bytes of alphanumeric-special (ANS) data. The file has three fields containing: (1) a parameter name, (2) a parameter value; and (3) the fraction of the file having that value of the parameter. The fields are TAB delimited. NEWLINE characters separate records. A period character is used as a decimal point in the Fraction field. As an example, the record EYE<TAB>BLUE<TAB>0.321<NEWLINE> indicates that the parameter EYE having the value BLU occurs in 32.1% of the subjects on file.

SCNA 2.086 - AFIS SEGMENT CONTROL NUMBER. This field contains a number used by AFIS/FBI to allow tracking of or reference to specific transactions. It is used, for example, to indicate the index number for individual records in the IAFIS Unsolved Latent File in the response to a Remote Latent Search. It is also used to refer to transactions that contained searches for the purpose of status queries, modifications, or cancellations.

SCO 2.007- SEND COPY TO. The purpose of this 9-to-19 character alphanumeric-special (ANS) field is to indicate that additional electronic responses need to be forwarded to agencies other than the contributor by the state identification bureau. The first nine characters shall be alphanumeric and shall contain the NCIC-assigned Originating Agency Identifier (ORI) for an agency who is to receive a copy of the response. At the option of the transmitting agency, the ORI may be expanded to a size of 19 characters, with 10 characters of alphanumeric-special (ANS) data appended to the end to assist in proper routing of the responses. However, no <US> or <RS> separator may be used between the ORI and routing extension (use any printable ASCII special character (e.g., a slash) as a separator). Upon receiving an electronic response, the state identification bureau will forward a copy of the electronic response to each agency listed in the "SEND COPY TO" block.

SEX 2.024- SEX. This field is used to report the gender of the subject. The entry is a single character selected from the following table:

If Following Condition Exists	Enter Code
Subject's gender reported as female	F
Occupation or charge indicated "Male Impersonator"	G
Subject's gender reported as male	M
Occupation or charge indicated "Female Impersonator" or transvestite	N
Male name, no gender given	Y
Female name, no gender given	Z
Unknown gender	X

SID 2.015 - STATE IDENTIFICATION NUMBER. This field contains the state identification number. The format is the standard two-character abbreviation of the state name, followed by the number. Embedded blanks are not permitted. The SID returned in a response is dependent upon the search results.

SLE 2.055 - CUSTODY OR SUPERVISORY STATUS LITERAL. This field contains the free-text description of the subject's custody or supervision status. The first character must not be blank. Entry of SLE requires that SSD also be entered.

SMT 2.026 - SCARS, MARKS AND TATTOOS. For each scar, mark, or tattoo present on the subject, the appropriate NCIC code shall be used in this information item. Blanks are allowed as special characters.

SOC 2.016 - SOCIAL SECURITY ACCOUNT NUMBER. This field contains the subject's social security number, if known. This number shall be entered as nine consecutive digits with no embedded punctuation characters. No foreign social security numbers shall be used.

SRF 2.059 - SEARCH RESULTS FINDINGS. This field is used in responses to submissions and contains a single character. An "I" shall be used to indicate that an identification has been made, and an "N" shall be used to indicate that no identification has been made.

SSD 2.054 - CUSTODY OR SUPERVISORY STATUS START DATE. This field contains the start date for the subject's indicated custody or supervisory status. The date shall appear as an eight-digit number in the same format as specified for CDD. SSD may not be less than DOA. Complete date may not exceed current date. If custody data are submitted, all custody fields (SSD, OCA and SLE) must be present.

TAA 2.087 - TREAT AS ADULT. A one-byte optional field to indicate whether a juvenile is to be processed as an adult. A "Y" indicates yes, an omitted field indicates no. The TAA returned in a response is the same as the one submitted.

TSR 2.043 - TYPE OF SEARCH REQUESTED. A one-byte code shall be entered in this field from the following table to indicate the type of record being submitted. The field is applicable to the FAUF and NFUF transactions as follows.

Type of Record	Code	Applicable Type of Transaction
Enlistment record with fingerprints	E	FAUF
Pre-commission candidate record with fingerprints	P	FAUF
Civil submission in support of the National Child Protection Act of 1993	V	NFUF

ULF 2.083 - UNSOLVED LATENT FILE. This one-character alpha field is used to designate whether a latent image or features record in search should be added to the Unsolved Latent File. Submit a "Y" for yes. For a no, omit the field.

WGT 2.029 - WEIGHT. In this field the subject's weight in pounds is entered. If weight is unknown, 000 is entered. All weights in excess of 499 pounds will be set to 499 lbs.

WTR 2.030 - WEIGHT RANGE. If a range of weight is given, it shall be expressed as two 3-digit numbers indicating the minimum and maximum weights (in pounds) of the subject. There shall be no separator character used between the weights. WTR must be in the range 050 to 499 lbs (however, there is no minimum range limit for missing persons or unknown persons).

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
ACN	2.071	ACTION TO BE TAKEN	ANS	0	300	2.071:IF NON-IDENT, SUBMIT TO UNSOLVED LATENT FILE<GS>	Commas, hyphens, ampersands, slashes, number signs, and blanks are all allowed as special characters.
AGR	2.023	AGE RANGE	N	4	4	2.023:1619<GS>	
AKA	2.019	ALIASES	ANS	3	30	2.019:JONES, TONY<RS>JONES, A P<GS>	Hyphens, commas, and blanks are all allowed as special characters.
AMP	2.084	AMPUTATED OR BANDAGED	SET			2.084:03<US>XX<RS>09<US>UP<FS>	
		FINGER NUMBER (FGP)	N	2	2		
		AMPUTATED OR BANDAGED CODE (AMPCD)	A	2	2		
ASL	2.047	ARREST SEGMENT LITERAL	SET			2.047:DUI<RS>19940920<US>POSSESSION OF FIREARMS<GS>	Any printable 7-bit ascii character is allowed.
		DATE OF OFFENSE (DOO)	N	8	8		
		ARREST OFFENSE LITERAL (AOL)	ANS	1	300		Any printable 7-bit
ATN	2.006	"ATTENTION" INDICATOR	ANS	3	30	2.006:SA J Q DOE,RM 11867<GS>	Any printable 7-bit ascii character with the exception of the period is
CAN	2.064	CANDIDATE LIST	SET			2.064:273849CA2<US>BROWN,JOHN D<RS>83625NY<US>COLLINS,TERRY G<GS>	Commas, hyphens, or blanks are all allowed as special characters.
		FBI NUMBER (FNU)	AN	1	9		
		NAME (NAM)	AS	3	30		Commas, hyphens or blanks allowed
CFS	2.077	CANCEL FP SEARCH	N	1	10	2.077:3124<GS>	
CIN	2.010	CONTRIBUTOR CASE IDENTIFIER NUMBER	SET			2.010:INCIDENT NUMBER<US>1963BRT715<GS>	Any printable 7-bit ascii character is allowed.
		CONTRIBUTOR CASE PREFIX (CIN_PRE)	ANS	1	24		
		CONTRIBUTOR CASE ID (CIN_ID)	ANS	1	24		

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
CIX	2.011	CONTRIBUTOR CASE IDENTIFIER EXTENSION	N	2	4	2.011:23<GS>	
CMT	2.381	COMMENTS	AN	1	255	2.381:ANY ADDITIONAL AGENCY COMMENTS<GS>	
CRI	2.073	CONTROLLING AGENCY IDENTIFIER	ANS	1	9	2.073:NY0303000<GS>	
CRN	2.085	CIVIL RECORD NUMBER	AN	9	9	2.085:V12345678<FS>	
CSL	2.051	COURT SEGMENT LITERAL	SET			2.051:19940930<US>DUI<US>5 DAYS JAIL, PAY COURT COSTS<RS>19940930<US>POSSESSION OF FIREARMS<US>10 DAYS JAIL, PAY COURT COSTS, $50<GS>	Any printable 7-bit ascii character is allowed.
		COURT DISPOSITION DATE (CDD)	N	8	8		
		COURT OFFENSE LITERAL (COL)	ANS	1	300		Any printable 7-bit
		OTHER COURT SENTENCE PROVISION LITERAL (CPL)	ANS	1	300		Any printable 7-bit
CSR	2.048	CIVIL SEARCH REQUESTED INDICATOR	A	1	1	2.048:Y<GS>	
CST	2.061	CASE TITLE	ANS	1	50	2.061:ARMED ROBBERY FIRST COUNTY<GS>	Any printable 7-bit ascii character is allowed.
CTZ	2.021	COUNTRY OF CITIZENSHIP	A	2	2	2.021:US<GS>	
DOA	2.045	DATE OF ARREST	N	8	8	2.045:19950324<GS>	
DOB	2.022	DATE OF BIRTH	N	8	8	2.022:19770825<GS>	
DOS	2.046	DATE OF ARREST-SUFFIX	A	1	1	2.046:L<GS>	
DPR	2.038	DATE PRINTED	N	8	8	2.038:19950324<GS>	
EAD	2.039	EMPLOYER AND ADDRESS	ANS	1	120	2.039:ACE CONSTRUCTION COMPANY,327 MAPLE AVE,	Any printable 7-bit ascii character is allowed.
ERS	2.075	ELECTRONIC RAP SHEET	ANS	4	200000	2.075:<rap sheet example here><GS>	Any printable 7-bit ascii character is allowed.
ETC	2.069	ESTIMATED TIME TO COMPLETE	N	1	4	2.069:6270<GS>	
EXP	2.080	RESPONSE EXPLANATION	ANS	1	50	2.080:PHOTO NOT FOUND FOR SPECIFIED DOA DOS<GS>	Any printable 7-bit ascii character is allowed.

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
EYE	2.031	COLOR EYES	A	3	3	2.031:BLU<GS>	
FBI	2.014	FBI NUMBER	AN	1	9	2.014:62760NY12<GS>	
FFN	2.003	FBI FILE NUMBER	N	10	10	2.003:2537597861<GS>	
FGP	2.074	FINGER POSITION	N	2	2	2.074:01<RS>02<RS>03<RS>04<RS>05<RS>06<RS>07<RS>08<RS>09<RS>10<GS>	
FIU	2.072	FINGERPRINT IMAGE(S) UPDATED	AN	1	2	2.072:01<RS>02<RS>05<RS>07<RS>08<RS>11<RS>13< GS>	
FNR	2.057	FINGER NUMBER(S) REQUESTED	N	2	2	2.057:01<RS>06<RS>10<GS>	
FPC	2.033	NCIC FINGERPRINT CLASSIFICATION	AN	20	20	2.033:AAXXP158PMXM62POTTDI<GS>	
FPO	2.380	FINGERPRINT OFFICIAL	AS	3	30	2.380:NAME OF FINGERPRINT OFFICIAL<GS>	Comma, hyphens or blanks allowed
GEO	2.044	GEOGRAPHICAL AREA OF SEARCH	A	2	2	2:044:MD<GS>	
HAI	2.032	HAIR COLOR	A	3	3	2.032:BRO<GS>	
HGT	2.027	HEIGHT	AN	3	3	2.027:601<GS>	
HTR	2.028	HEIGHT RANGE	AN	6	6	2.028:508603<GS>	
ICO	2.056	IDENTIFICATION COMMENTS	ANS	1	50	2.056:ARMED AND DANGEROUS<GS>	Any printable 7-bit ascii character is allowed.
IDC	2.002	IMAGE DESIGNATION CHARACTER	N	2	2	2.002:00<GS>	
IMA	2.067	IMAGE CAPTURE EQUIPMENT	SET			2.067:DBI<US>1134<US>12345<GS>	Any printable 7-bit ascii character is allowed.
		ORIGINATING FINGERPRINT READING SYSTEM MAKE (MAK)	ANS	1	25		Any printable 7-bit
		ORIGINATING FINGERPRINT READING SYSTEM MODEL (MODL)	ANS	1	25		Any printable 7-bit
		ORIGINATING FINGERPRINT READING SYSTEM SERIAL NUMBER (SERNO)	ANS	1	50		Any printable 7-bit
IMT	2.062	IMAGE TYPE (IF TYPE -7 IMAGES)	N	1	2	2.062:1<RS>2<RS>3<RS>4<RS>5<GS>	

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
LCN	2.012	FBI LATENT CASE NUMBER	ANS	11	11	2.012:MX-12345678<GS>	First two characters may be AN, followed by a hyphen. Remaining characters are AN
LCX	2.013	FBI LATENT CASE EXTENSION	N	4	4	2.013:0001<GS>	
LEN	2.001	LOGICAL RECORD LENGTH	N	2	7	2.001:909<GS>	
MIL	2.042	MILITARY CODE	A	1	1	2.042:M<GS>	
MNU	2.017	MISCELLANEOUS IDENTIFICATION NUMBER	ANS	4	15	2.017:PP-1234567890P<GS>	A hyphen is allowed as a special character
MSC	2.089	MATCHSCORE	N	1	6	2.089:1200<GS>	
MSG	2.060	STATUS/ERROR MESSAGE	ANS	1	300	2.060:MATCH MADE AGAINST SUBJECTS FINGERPRINTS ON 05/01/94. PLEASE NOTIFY SUBMITTING STATE IF MATCH RESULTS<GS>	Any printable 7-bit ascii character is allowed.
NAM	2.018	NAME	AS	3	30	2.018:JONES, ANTHONY P<GS>	Commas, hyphens and blanks are all allowed as special characters.
NCR	2.079	NUMBER OF CANDIDATE'S IMAGES RETURNED	N	1	2	2.079:10<GS>	
NOT	2.088	NOTE FIELD	ANS	1	1000	2.088:NOTE<GS>	Any printable 7-bit ascii character is allowed.
OBT	2.382	OFFENSE BASED TRACKING NUMBER	AN	13	13	2.382:IDTN000008145<GS>	
OCA	2.009	ORIGINATING AGENCY CASE NUMBER	ANS	1	20	2.009:Q880312465<GS>	Any printable 7-bit ascii character with the exception of the period is
OCP	2.040	OCCUPATION	ANS	1	50	2.040:PLUMBER<GS>	Any printable 7-bit ascii character is allowed.
OFC	2.053	OFFENSE CATEGORY	N	1	1	2.053:1<GS>	

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
PAT	2.034	PATTERN LEVEL CLASSIFICATIONS	SET			2.034:01<US>WU<RS>02<US>LS<RS>03<US>LS<RS>04<US>LS<RS>05<US>LS<RS>06<US>RS<RS>07<US>RS<RS>08<US>LS<RS>09<US>RS<RS>10<US>RS<GS>	
		FINGER NUMBER (FGP)	N	2	2		
		PATTERN CLASSIFICATION CODE (PATCL)	A	2	2		
PEN	2.078	PENETRATION QUERY RESPONSE	N	2	2	2.078:10<FS>	
PHT	2.036	"PHOTO AVAILABLE" INDICATOR	A	1	1	2.036:Y<GS>	
POB	2.020	PLACE OF BIRTH	A	2	2	2.020:VA<GS>	
PPA	2.035	"PALM PRINTS AVAILABLE" INDICATOR	A	1	1	2.035:Y<GS>	
PRI	2.076	PRIORITY	N	1	1	2.076:1<GS>	
PTD	2.063	PERSON TYPE DESIGNATOR	A	1	1	2.063:S<GS>	
QDD	2.004	QUERY DEPTH OF DETAIL	A	1	1	2.004:O<GS>	
RAC	2.025	RACE	A	1	1	2.025:W<GS>	
RAP	2.070	REQUEST FOR ELECTRONIC RAP SHEET	A	1	1	2.070:Y<GS>	
RCD1	2.091	RIDGE CORE DELTA ONE FOR SUBPATTERN CLASSIFICATION	SET			2.091:01<US>13<RS>02<US>6<RS>03<US>11<RS>04<US>10<RS>05<US>11<RS>06<US>11<RS>07<US>12<RS>08<US>10<RS>09<US>13<RS>10<US>11<GS>	
		FINGER NUMBER (FGP)	N	2	2		
		RIDGE COUNT NUMBER 1 (RCN1)	N	1	2		
RCD2	2.092	RIDGE CORE DELTA TWO FOR SUBPATTERN CLASSIFICATION	SET			2.092:01<US>10<RS>02<US>0<RS>03<US>0<RS>04<US>0<RS>05<US>0<RS>06<US>0<RS>07<US>0<RS>08<US>0<RS>09<US>0<RS>10<US>0<GS>	
		FINGER NUMBER (FGP)	N	2	2		
		RIDGE COUNT NUMBER 2 (RCN2)	N	1	2		

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

TABLE B-1. FIELD EDIT SPECIFICATIONS FOR TYPE-2 ELEMENTS

Identifier	Field Number	Field Name	Character Type	Minimum Field Size	Maximum Field Size	Example	Special Characters
REC	2.082	RESPONSE CODE	A	1	1	2.082:Y<FS>	
RES	2.041	RESIDENCE OF PERSON FINGERPRINTED	ANS	1	120	2.041:5021 OAK LEAF DRIVE, BUFFALO NY, USA., 19970925<GS>	Any printable 7-bit ascii character is allowed.
RET	2.005	RETENTION CODE	A	1	1	2.005:Y<GS>	
RFP	2.037	REASON FINGERPRINTED	ANS	1	75	2.037:CONSIDERING FOR EMPLOYMENT<GS>	Commas, blanks, dashes, hyphens, and slashes are all allowed as special characters.
RSR	2.065	REPOSITORY STATISTICS RESPONSE	ANS	1	32000	2.065:(ASCII TEXT DATA)<GS>	Period (as decimal point), Tab (as field delimiter), Newline (as record separator)
SCNA	2.086	AFIS SEGMENT CONTROL NUMBER	N	1	10	2.086:3124<FS>	
SCO	2.007	SEND COPY TO	ANS	9	19	2.007:NY030025P<GS>	Any printable 7-bit ascii character is allowed.
SEX	2.024	SEX	A	1	1	2.024:M<GS>	
SID	2.015	STATE IDENTIFICATION NUMBER	ANS	3	10	2.015:NY12345678<GS>	NY, OR, and PA may use a hyphen in the last
SLE	2.055	CUSTODY OR SUPERVISORY STATUS LITERAL	ANS	1	300	2.055:RELEASED BY COURT ORDER,19940930<GS>	Any printable 7-bit ascii character is allowed. First character must not be
SMT	2.026	SCARS, MARKS, AND TATTOOS	AS	3	10	2.026:MISS L TOE<RS>TAT RF ARM<GS>	Blanks are allowed as special characters.
SOC	2.016	SOCIAL SECURITY ACCOUNT NUMBER	N	9	9	2.016:220565855<GS>	
SRF	2.059	SEARCH RESULTS FINDINGS	A	1	1	2.059:N<GS>	
SSD	2.054	CUSTODY OR SUPERVISORY STATUS - START DATE	N	8	8	2.054:19940930<GS>	
TAA	2.087	TREAT AS ADULT	A	1	1	2.087:Y<FS>	
TSR	2.043	TYPE OF SEARCH REQUESTED	A	1	1	2.043:P<GS>	
ULF	2.083	UNSOLVED LATENT FILE	A	1	1	2.083:Y<FS>	
WGT	2.029	WEIGHT	N	3	3	2.029:182<GS>	
WTR	2.030	WEIGHT RANGE	N	6	6	2.030:175190<GS>	

Under the character type column: A = Alpha; B = Binary; N = Numeric; S = Special Characters

APPENDIX C

COMMONWEALTH'S STORE AND FORWARD/AFIS AND IAFIS IMAGE QUALITY SPECIFICATIONS

APPENDIX C

COMMONWEALTH'S STORE AND FORWARD/AFIS AND IAFIS IMAGE QUALITY SPECIFICATIONS

1.1.0 SCOPE AND PURPOSE

These specifications apply to fingerprint scanner systems and printers that will supply fingerprint data to the Commonwealth's Store and Forward/AFIS and IAFIS, and to printers and displays within the AFIS/IAFIS. They provide objective criteria for insuring image quality.

Electronic images must be of sufficient quality to allow for: (l) conclusive fingerprint comparisons (identification or non-identification decision); (2) fingerprint classification; (3) automatic feature detection; and (4) overall Automated Fingerprint Identification System (AFIS) search reliability.

The fingerprint comparison process requires a high fidelity image without any banding, streaking or other visual defects. Finer detail such as pores and incipient ridges are needed since they can play an important role in the comparison. Additionally, the gray-scale dynamic range must be captured with sufficient depth to support image enhancement and restoration algorithms.

The image quality requirements have associated test procedures, which are described in the document *Test Procedures for Verifying IAFIS Scanner Image Quality Requirements*. These procedures will be used by the Government in acceptance testing to ensure compliance with the requirements, and in performance capability demonstrations as an indication of capability to perform. Equipment shall be tested to meet the requirements in normal operating modes, e.g., scanners shall not be tested at slower than normal operating speeds to meet modulation transfer function specifications. A vendor may recommend alternate testing methods.

1.2.0 FINGERPRINT SCANNERS

The following subsections describe the image quality performance characteristics required for a fingerprint scanner (live scan and card scan). These specifications require that the scanner shall capture fingerprints at a minimum resolution in both the detector row and detector column directions (also known as 'along-scan' and 'cross-scan' directions) of 500 pixels/inch, plus or minus 5 pixels per inch. The final output delivered image from the scanner system shall have a resolution of 500 pixels/inch, plus or minus 5 pixels per inch, and each pixel shall be gray level quantized to 8 bits. [Requirement described in the ANSI standard: *Data Format for the Interchange of Fingerprint Information*, ANSI/NIST-CSL 1-1993.]

1.2.1 Geometric Image Accuracy

The absolute value of the difference "D", between the actual distance "X" between any two points on a target and the distance "Y" between those same two points as measured on the output scanned image of that target, shall meet the following requirements for the value D:

D ≤ 0.0007, for 0 ≤ X ≤ 0.07

D ≤ 0.01X, for 0.07≤ X ≤ 1.50

where: D, X, Y are in inches and D = ⌧Y - X⌧

The requirement corresponds to a positional accuracy of ± 1% for distances between 0.07 and 1.5 inches, and a constant ± 0.0007 inches (1/3 pixel) for distances less than or equal to 0.07 inches. The geometric image accuracy shall be measured using precision 1 cycle per millimeter Ronchi targets on white Mylar reflective base manufactured by Applied Image, Inc.[1]

1.2.2 Modulation Transfer Function

The measured modulation transfer function (MTF) of the scanner, in both the detector row and detector column directions, and over any region of the scanner's field of view, shall have modulation values which fall within the ranges given in the following MTF table, at the given spatial frequencies:

cyc/mm	MTF
1	.905 to 1.00
2	.797 to 1.00
3	.694 to 1.00
4	.598 to 1.00
5	.513 to 1.00
6	.437 to 1.00
8	.312 to 1.00
10	.200 to 1.00

[1]Applied Image, 1653 East Main Street, Rochester, NY 14526, Phone (716) 482-0300

The MTF shall be measured using test chart number M-13-60-1X manufactured by Sine Patterns, Inc.[2]. The single, representative sine wave modulation in each imaged sine wave frequency pattern is determined from the sample modulation values collected from within that pattern. The sample modulation values are computed from the maximum and minimum levels corresponding to the 'peak' and adjacent 'valley' in each sine wave period. These maximum and minimum levels represent the corresponding locally averaged image gray levels mapped through a calibration curve into target reflectance space, where the local average of gray levels is computed in a direction orthogonal to the sinusoidal variation direction. Sample image modulation is then defined as:

(maximum - minimum) / (maximum + minimum)

The calibration curve is constructed by performing a least squares linear regression curve fit between the image gray levels of the 14 density patches in the test target and the corresponding target reflectance values. The scanner MTF at each frequency is then defined as:

MTF = representative image modulation / target modulation

[Target modulations and target density patch values are supplied with the test target by the manufacturer.]

1.2.3 Signal-to-Noise Ratio

Both the ratio of signal to white noise standard deviation and the ratio of signal to black noise standard deviation of the digital scanner shall be greater than or equal to 125 using the following procedure:

1) A random 0.25 inch x 0.25 inch test field within the image area is chosen and the white reference target, Munsell[3] N9-white matte, is placed in the test field.

2) A white test population of 8-bit reflectance values from at least 1000 samples within the test field are collected. The average value and standard deviation are computed from this test population.

3) Steps 1 and 2 are repeated for the black reference target, Munsell N3 - black matte.

4) The signal to noise ratio (SNR) is computed as the difference between average white and average black values, alternately divided by the white noise standard deviation ('white SNR') and the black noise standard deviation ('black SNR').

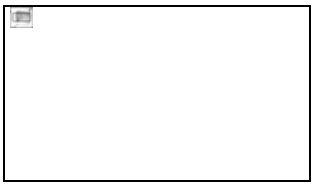
(42)

[2]Sine Patterns, 236 Henderson Drive, Penfield, NY 14526, Phone (716) 248-5338

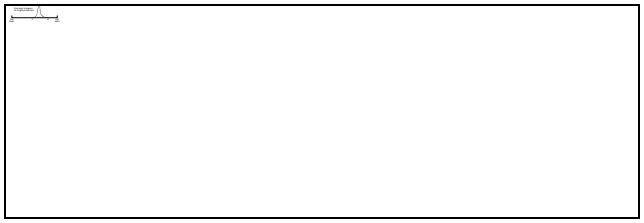
[3] Munsell-Macbeth, P.O. Box 230, Newburgh, NY 12551, Phone (914) 565-7660

Note: The scanner shall be set up such that the white reference target is below scanner saturation level, and the black reference target is above scanner dark current level. Also, care should be taken, via direct visual or visual display observation, to avoid areas of dust, pinholes, scratches, or other imperfections on the target when selecting the sub-area for the 1000 samples.

1.4 Gray-Scale Range of Image Data



At least 80% of the captured individual fingerprint images shall have a gray-scale dynamic range of at least 200 gray levels and at least 99% shall have a dynamic range of at least 128 gray levels. For this requirements section, 'dynamic range' is defined as the total number of gray levels that have signal content from the fingerprint image. Fingerprint card format lines, boxes, and text shall be excluded from the dynamic range computation and white surround in the immediate vicinity of a given fingerprint shall be included in the dynamic range computation (dashed box at right). Compliance with these dynamic range requirements shall be verified using a stratified sample of fingerprint cards assembled by the Government.



The intent is to avoid excessively low contrast images. Live-scan systems and card scanners at a booking station can control dynamic range by rolling the prints properly. However, with central site or file conversion systems, where a variety of card types and image qualities are encountered, adaptive processing may be necessary. The 8-bit quantization of the gray-scale values for very low contrast fingerprints needs to more optimally represent the reduced gray-scale range of such fingerprints. In the example histogram accompanying this section, the gray-scale values divide up the range from A to B. The parameters A and B are stored with the image to provide an audit trail. (43)

1.2.5 Gray-scale Linearity

Using the 14 gray patches in the Sine Patterns, Inc. test target M-13-60-1X as the scanner input (independent variable), with their manufacture-supplied reflectance values, none of the corresponding 14 scanner output gray levels (dependent variable) shall deviate by more than 7.65 gray levels from a linear, least squares regression line fitted between the two variables. The output sample values within an area of at least 0.25 x 0.25 inches shall be utilized to compute the average output gray level for each patch.

1.2.6 Output Gray Level Uniformity

Output gray level uniformity shall be determined by scanning both a white reference target, Munsell N9 - white matte, and a black reference target, Munsell N3 - black matte. The scanner shall be set up such that the white reference target is below scanner saturation level, and the black reference target is above scanner dark current level in the respective tests.

Using the white target as the scanner input, the following three requirements shall be met:

(1) The outputs of any two adjacent rows or columns of length 9 pixels or greater shall not have mean gray levels that differ by more than 2.5 gray levels.

(2) For all pixels within a 0.25 inch x 0.25 inch area ('quarter inch area') located in any region of the total scanner field of view, no individual pixel's gray level shall vary from the mean gray level by more than 22.0 gray levels.

(3) For any two non-contiguous quarter inch areas located anywhere in the total scanner field of view, the mean gray levels of the two quarter inch areas shall not differ by more than 12.0 gray levels.

And, using the black target as the scanner input, the following three requirements shall be met:

(1) The outputs of any two adjacent rows or columns of length 9 pixels or greater shall not have mean gray levels that differ by more than 1.0 gray levels.

(2) For all pixels within a 0.25 inch x 0.25 inch area ('quarter inch area') located in any region of the total scanner field of view, no individual pixel's gray level shall vary from the mean gray level by more than 8.0 gray levels.

(3) For any two non-contiguous quarter inch areas located anywhere in the total scanner field of view, the mean gray levels of the two quarter inch areas shall not differ by more than 3.0 gray levels.

1.3.0 LATENT PRINT SCANNERS

The following subsections describe the image quality performance characteristics required for a latent print scanner operating in a 1000 pixels/inch mode. These specifications require that the scanner shall capture fingerprints at a minimum resolution in both the detector row and detector column directions (also known as 'along-scan' and 'cross-scan' directions) of 1000 pixels/inch. The final output delivered image from the scanner system (at the 1000 ppi setting) shall have a resolution of 1000 pixels/inch, plus or minus 10 pixels per inch, and each pixel shall be gray level quantized to a minimum of 8 bits. The complete latent print specification consists of all requirements given in this Section, plus all non-conflicting requirements given in Section 2.0 Fingerprint Scanners.

1.3.1 Geometric Image Accuracy

The absolute value of the difference "D", between the actual distance "X" between any two points on a target and the distance "Y" between those same two points as measured on the output scanned image of that target, shall meet the following requirements for the value D:

D ≤ 0.0005, for 0 ≤ X ≤ 0.07

D ≤ 0.0071X, for 0.07≤ X ≤ 1.50

where: D, X, Y are in inches and D = ⌧Y - X⌧

The requirement corresponds to a positional accuracy of ± .71% for distances between 0.07 and 1.5 inches, and a constant ± 0.0005 inches (½ pixel) for distances less than or equal to 0.07 inches. The geometric image accuracy shall be measured using precision 1 cycle per millimeter Ronchi targets on white Mylar reflective base manufactured by Applied Image, Inc.[4]

1.3.2 Modulation Transfer Function

The measured modulation transfer function (MTF) of the scanner, in both the detector row and detector column directions, and over any region of the scanner's field of view, shall have modulation values which fall within the ranges given in the following MTF table, at the given spatial frequencies:

cyc/mm	MTF
1	0.925 to 1.00
2	0.856 to 1.00
3	0.791 to 1.00
4	0.732 to 1.00
5	0.677 to 1.00

(45)

[4]Applied Image, 1653 East Main Street, Rochester, NY 14526, Phone (716) 482-0300

1. . 0.626 to 1.00
1. . 0.536 to 1.00
1. . 0.458 to 1.00
1. . 0.392 to 1.00
1. . 0.336 to 1.00
1. . 0.287 to 1.00
1. . 0.246 to 1.00
1. . 0.210 to 1.00

The MTF shall be measured using test chart number M-13-60-1X manufactured by Sine Patterns, Inc.[5]. The single, representative sine wave modulation in each imaged sine wave frequency pattern is determined from the sample modulation values collected from within that pattern. The sample modulation values are computed from the maximum and minimum levels corresponding to the 'peak' and adjacent 'valley' in each sine wave period. These maximum and minimum levels represent the corresponding locally averaged image gray levels mapped through a calibration curve into target reflectance space, where the local average of gray levels is computed in a direction orthogonal to the sinusoidal variation direction. Sample image modulation is then defined as:

(maximum - minimum) / (maximum + minimum)

The calibration curve is constructed by performing a least squares linear regression curve fit between the image gray levels of the 14 density patches in the test target and the corresponding target reflectance values. The scanner MTF at each frequency is then defined as:

MTF = representative image modulation / target modulation

[Target modulations and target density patch values are supplied with the test target by the manufacturer.]

1.4.1 IAFIS DISPLAY SPECIFICATIONS

Two types of displays are required. One is for the ten-print examiner and document processing. The other is for the latent examiner.

1.4.1 Ten-print / Document Processing Display

The ten-print/document processing display shall meet the following performance levels:

Parameter	Value	Comments
Colors	256	8 bits/pixel

(46)

[5]Sine Patterns, 236 Henderson Drive, Penfield, NY 14526, Phone (716) 248-5338

Number of addressable pixels	1280 x 1024	
Pixel size	0.28 mm (max)	width at 50% amplitude at center of display
Active display area	14" x 10.5" (min)	Landscape mode
Display refresh rate	at least 72 Hz noninterlaced	Minimizes flicker
Video bandwidth	at least 100 MHz	
Luminance	33 fL (min)	of white area
Video pulse rise & fall time	3 nanosec. (max)	ensures no visible smearing
Geometric pixel location error	±1.5% (max)	No point varies more then 1.5% from its correct position
Operator controls	brightness, contrast	on front panel
Brightness Uniformity	±15% of mean deviation (max)	over entire display at low, medium and high brightness

1.4.2 Latent Print Comparison Display

The other display is for use by the FBI's latent fingerprint examiners. Because this display will be used to support latent fingerprint comparisons, the resolution and brightness (luminance) requirements are higher. The display shall be a monochrome cathode ray tube display, which shall meet the following performance levels:

Parameter	Value	Comments
Gray levels	8 bits/pixel @ CRT video input	
Number of addressable pixels	1600 x 1200	
Pixel size	0.19 mm (max)	width at 50% amplitude at center of display

Active display area	14" x 10.5" (min)	Landscape mode
Display refresh rate	at least 72 Hz noninterlaced	Minimizes flicker
Video bandwidth	at least 100 MHz	
Luminance	50 fL (min)	of white area
Video pulse rise & fall time	3 nanosec. (max)	ensures no visible smearing
Geometric pixel location error	±1.5% (max)	No point varies more then 1.5% from its correct position
Operator controls	brightness, contrast	on front panel
Brightness Uniformity	±15% of mean deviation (max)	over entire display at low, medium and high brightness

The ambient lighting in the work area is expected to be a combination of natural and fluorescent lighting.

1.5.0 PRINTER SPECIFICATIONS

The fingerprint examiners in the AFIS/IAFIS environment will depend upon softcopy images to make comparisons and will require hardcopy images in certain instances. Some contributors will print cards from live scan or card scan devices for submission to the State and FBI. In all such cases the images will be mapped from their digital form to high resolution printing devices. The printed images must be of sufficient quality to support all phases of identification, including conclusive fingerprint comparisons (identification or non-identification decision).
Two classes of printing devices are required. The first is intended to support fingerprint card reproduction. These printers will be used within the AFIS/IAFIS environment and by submitters who choose to print and mail their live scan results. The printers should provide high through-put, low-cost-per-copy, non-fading output. This monochrome printer shall perform at the following minimum levels:

Gray levels	16
Paper size	8" x 8" (min)
Resolution	500 dots/inch (min.), where each pixel is capable of producing 16 gray levels

A second class of printer is required to support the investigative fingerprint comparison function. Continuous tone monochrome output is required. This printer shall perform at the following minimum levels:

Gray levels	8-bit continuous-tone gray-scale
Paper	Production of output paper print shall not require liquid processing
Paper size	8" x 11"
Resolution	At least 500 pixels per inch, where each pixel is capable of producing 256 gray levels from an 8 bits/pixel input

APPENDIX D

SUMMARY FIELD LISTS FOR 10-PRINT TRANSACTIONS

TABLE D-1 SUMMARY FIELD LISTS FOR TEN-PRINT TRANSACTIONS

(Maximum Occurrences of Each Element for Each Logical Record Type)

Tag #	Element ID	CAR	ERRT	MAP	NFUF	SRE
2.001	LEN	1	1	1	1	1
2.002	IDC	1	1	1	1	1
2.005	RET	1		1	1	
2.006	ATN	1	1	1	1	1
2.007	SCO	9	9	9	9	9
2.009	OCA	1	1	1	1	1
2.014	FBI	5 5	5	5	5	8 1
2.015	SID	6 1	1	1	1	1
2.016	SOC	4		4	4	
2.017	MNU	4	4	4	4	
2.018	NAM	1		1	1	1
2.019	AKA	10		10	10	
2.020	POB	1		1	1	
2.021	CTZ	1		1	1	
2.022	DOB	5		5	5	
2.024	SEX	1		1	1	
2.025	RAC	1		1	1	
2.026	SMT	10		10	10	
2.027	HGT	1		1	1	
2.029	WGT	1		1	1	
2.031	EYE	1		1	1	
2.032	HAI	1		1	1	
2.034	PAT					
2.035	PPA	1				
2.036	PHT	1				
2.037	RFP			1	1	
2.038	DPR	1		1	1	
2.039	EAD	1		1	1	1
2.040	OCP	1		1	1	1
2.041	RES	1		1	1	1
2.042	MIL					
2.043	TSR				1	
2.045	DOA	1				
2.047	ASL	2 40				
2.048	CSR					
2.051	CSL	40				
2.054	SSD	1				
2.055	SLE	9 1				
2.056	ICO	1				

2.057	FNR					
2.059	SRF					1
2.060	MSG		11			
2.064	CAN					
2.067	IMA	1		1	1	
2.070	RAP	1		1	1	
2.071	ACN					1
2.073	CRI	3	3	3	3	3
2.075	ERS					1
2.084	AMP	7 9		7 9	7 9	
2.085	CRN					8 1
2.087	TAA	1				1
2.091	RCD1					
2.092	RCD2					
2.380	FPO	1	1	1		
2.381	CMT	1	1	1		1
2.382	OBT	1	1	1	1	1
2.383	Reserved					
2.384	Reserved					
2.385	Reserved					
2.386	Reserved					
2.387	Reserved					
2.388	Reserved					
2.389	Reserved					

NOTE: Shaded cells represent optional elements
Unshaded cells represent mandatory elements
Blank cells indicate the element is not used

APPENDIX E

RECORDSET REQUIREMENTS SUMMARY
BY
TYPE OF TRANSACTION

Table E-1 RECORDSET REQUIREMENTS SUMMARY BY TYPE OF TRANSACTION

Transaction	TOT	T1	T2	T4*	Normal Response	Error Response	Delayed Response
Ten-Print submissions							
CRIMINAL TEN-PRINT SUBMISSION - ANSWER REQUIRED	CAR	1	1	14	SRE	ERRT	ULM
NON-FEDERAL APPLICANT USER FEE	NFUF	1	1	14	SRE	ERRT	
MISSCELLANEOUS APPLICANT - CIVIL	MAP	1	1	14	SRE	ERRT	

*For Ten-Print Submissions, the number of Type-4 images is nominally 14. When less than 14 are sent, the AMP field of the accompanying Type-2 must account for all missing images.

APPENDIX F

SUMMARY TABLES

APPENDIX F

SUMMARY TABLES

This appendix contains several tables that collect in one place summaries of information that otherwise is dispersed through the MEFTS document. Tables F-1 and F-2 cross-reference all currently used MEFTS elements from their Element IDs to their Tag Numbers. The cross-references appear in two ways. Table F-1 lists the fields in Element ID order. Table F-2 lists them in Tag Number order.

In several instances Tag Numbers shown have alpha suffixes. These suffixes are given only to make the list complete (i.e., to include subfields as well as simple elements in the list) and to aid in determination of what the parent field is in such cases. For example, the field tag 2.084A identifies this (**FGP**) as a subfield of AMP (2.084). ***Under no circumstance is a subfield tag to be used in formatting any MEFTS electronic message. Subfields do not have independent tags, either with or without an alpha suffix.***

TABLE F-1. COMPLETE ELEMENT CROSS-REFERENCE LIST BY ELEMENT ID

Element ID	MEFTS Tag Number	Element Name
ACN	2.071	ACTION TO BE TAKEN
AGR	2.023	AGE RANGE
AKA	2.019	ALIASES
AMP	2.084	AMPUTATED OR BANDAGED
AMPCD	2.084B	AMPUTATED OR BANDAGED CODE
AOL	2.047B	ARREST OFFENSE LITERAL
ASL	2.047	ARREST SEGMENT LITERAL
ATN	2.006	"ATTENTION" INDICATOR
CAN	2.064	CANDIDATE LIST
CDD	2.051A	COURT DISPOSITION DATE
CFS	2.077	CANCEL FP SEARCH
CIN	2.010	CONTRIBUTOR CASE IDENTIFIER NUMBER
CIN_ID	2.010B	CONTRIBUTOR CASE ID
CIN_PRE	2.010A	CONTRIBUTOR CASE PREFIX
CIX	2.011	CONTRIBUTOR CASE IDENTIFIER EXTENSION
CMT	2.381	COMMENTS
CNT	1.03	FILE CONTENT
COL	2.051B	COURT OFFENSE LITERAL
CPL	2.051C	OTHER COURT SENTENCE PROVISION LITERAL
CRI	2.073	CONTROLLING AGENCY IDENTIFIER
CRN	2.085	CIVIL RECORD NUMBER
CSL	2.051	COURT SEGMENT LITERAL
CSR	2.048	CIVIL SEARCH REQUESTED INDICATOR
CST	2.061	CASE TITLE
CTZ	2.021	COUNTRY OF CITIZENSHIP
DAI	1.07	DESTINATION AGENCY IDENTIFIER
DAT	1.05	DATE
DOA	2.045	DATE OF ARREST
DOB	2.022	DATE OF BIRTH
DOO	2.047A	DATE OF OFFENSE
DOS	2.046	DATE OF ARREST-SUFFIX
DPR	2.038	DATE PRINTED
EAD	2.039	EMPLOYER AND ADDRESS
ERS	2.075	ELECTRONIC RAP SHEET
ETC	2.069	ESTIMATED TIME TO COMPLETE
EXP	2.080	RESPONSE EXPLANATION
EYE	2.031	COLOR EYES

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-1. COMPLETE ELEMENT CROSS-REFERENCE LIST BY ELEMENT ID

Element ID	MEFTS Tag Number	Element Name
FBI	2.014	FBI NUMBER
FFN	2.003	FBI FILE NUMBER
FGP	2.034A	FINGER NUMBER
FGP	2.074	FINGER POSITION
FGP	2.084A	FINGER NUMBER
FGP	2.091A	FINGER NUMBER
FGP	2.092A	FINGER NUMBER
FIU	2.072	FINGERPRINT IMAGE(S) UPDATED
FNR	2.057	FINGER NUMBER(S) REQUESTED
FNU	2.064A	FBI NUMBER
FPC	2.033	NCIC FINGERPRINT CLASSIFICATION
FPO	2.380	FINGER PRINTING OFFICIAL
GEO	2.044	GEOGRAPHICAL AREA OF SEARCH
HAI	2.032	HAIR COLOR
HGT	2.027	HEIGHT
HTR	2.028	HEIGHT RANGE
ICO	2.056	IDENTIFICATION COMMENTS
IDC	2.002	IMAGE DESIGNATION CHARACTER
IMA	2.067	IMAGE CAPTURE EQUIPMENT
IMT	2.062	IMAGE TYPE (IF TYPE -7 IMAGES)
LCN	2.012	FBI LATENT CASE NUMBER
LCX	2.013	FBI LATENT CASE EXTENSION
LEN	1.01	LOGICAL RECORD LENGTH
LEN	2.001	LOGICAL RECORD LENGTH
MAK	2.067A	ORIGINATING FINGERPRINT READING SYSTEM MAKE
MIL	2.042	MILITARY CODE
MNU	2.017	MISCELLANEOUS IDENTIFICATION NUMBER
MODL	2.067B	ORIGINATING FINGERPRINT READING SYSTEM MODEL
MSC	2.089	MATCHSCORE
MSG	2.060	STATUS/ERROR MESSAGE
NAM	2.018	NAME
NAM	2.064B	NAME
NCR	2.079	NUMBER OF CANDIDATE'S IMAGES RETURNED
NOT	2.088	NOTE FIELD
NSR	1.11	NATIVE SCANNING RESOLUTION
NTR	1.12	NOMINAL TRANSMITTING RESOLUTION
OBT	2.382	OFFENSE BASED TRACKING NUMBER

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-1. COMPLETE ELEMENT CROSS-REFERENCE LIST BY ELEMENT ID

Element ID	MEFTS Tag Number	Element Name
OCA	2.009	ORIGINATING AGENCY CASE NUMBER
OCP	2.040	OCCUPATION
OFC	2.053	OFFENSE CATEGORY
ORI	1.08	ORIGINATING AGENCY IDENTIFIER
PAT	2.034	PATTERN LEVEL CLASSIFICATIONS
PATCL	2.034B	PATTERN CLASSIFICATION CODE
PEN	2.078	PENETRATION QUERY RESPONSE
PHT	2.036	"PHOTO AVAILABLE" INDICATOR
POB	2.020	PLACE OF BIRTH
PPA	2.035	"PALM PRINTS AVAILABLE" INDICATOR
PRI	2.076	PRIORITY
PRY	1.06	TRANSACTION PRIORITY
PTD	2.063	PERSON TYPE DESIGNATOR
QDD	2.004	QUERY DEPTH OF DETAIL
RAC	2.025	RACE
RAP	2.070	REQUEST FOR ELECTRONIC RAP SHEET
RCD1	2.091	RIDGE CORE DELTA ONE FOR SUBPATTERN CLASSIFICATION
RCD2	2.092	RIDGE CORE DELTA TWO FOR SUBPATTERN CLASSIFICATION
RCN1	2.091B	RIDGE COUNT NUMBER 1
RCN2	2.092B	RIDGE COUNT NUMBER 2
REC	2.082	RESPONSE CODE
RES	2.041	RESIDENCE OF PERSON FINGERPRINTED
RES	2.383	RESERVED
RES	2.384	RESERVED
RES	2.385	RESERVED
RES	2.386	RESERVED
RES	2.387	RESERVED
RES	2.388	RESERVED
RES	2.389	RESERVED
RET	2.005	RETENTION CODE
RFP	2.037	REASON FINGERPRINTED
RSR	2.065	REPOSITORY STATISTICS RESPONSE
SCNA	2.086	AFIS SEGMENT CONTROL NUMBER
SCO	2.007	SEND COPY TO
SERNO	2.067C	ORIGINATING FINGERPRINT READING SYSTEM SERIAL NUMBER
SEX	2.024	SEX
SID	2.015	STATE IDENTIFICATION NUMBER

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-1. COMPLETE ELEMENT CROSS-REFERENCE LIST BY ELEMENT ID

Element ID	MEFTS Tag Number	Element Name
SLE	2.055	CUSTODY OR SUPERVISORY STATUS LITERAL
SMT	2.026	SCARS, MARKS, AND TATTOOS
SOC	2.016	SOCIAL SECURITY ACCOUNT NUMBER
SRF	2.059	SEARCH RESULTS FINDINGS
SSD	2.054	CUSTODY OR SUPERVISORY STATUS - START DATE
TAA	2.087	TREAT AS ADULT
TCN	1.09	TRANSACTION CONTROL NUMBER
TCR	1.10	TRANSACTION CONTROL REFERENCE
TOT	1.04	TYPE OF TRANSACTION
TSR	2.043	TYPE OF SEARCH REQUESTED
ULF	2.083	UNSOLVED LATENT FILE
VER	1.02	VERSION
WGT	2.029	WEIGHT
WTR	2.030	WEIGHT RANGE

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-2. COMPLETE ELEMENT CROSS-REFERENCE LIST BY TAG NUMBER

MEFTS Tag Number	Element ID	Element Name
1.01	LEN	LOGICAL RECORD LENGTH
1.02	VER	VERSION
1.03	CNT	FILE CONTENT
1.04	TOT	TYPE OF TRANSACTION
1.05	DAT	DATE
1.06	PRY	TRANSACTION PRIORITY
1.07	DAI	DESTINATION AGENCY IDENTIFIER
1.08	ORI	ORIGINATING AGENCY IDENTIFIER
1.09	TCN	TRANSACTION CONTROL NUMBER
1.10	TCR	TRANSACTION CONTROL REFERENCE
1.11	NSR	NATIVE SCANNING RESOLUTION
1.12	NTR	NOMINAL TRANSMITTING RESOLUTION
2.001	LEN	LOGICAL RECORD LENGTH
2.002	IDC	IMAGE DESIGNATION CHARACTER
2.003	FFN	FBI FILE NUMBER
2.004	QDD	QUERY DEPTH OF DETAIL
2.005	RET	RETENTION CODE
2.006	ATN	"ATTENTION" INDICATOR
2.007	SCO	SEND COPY TO
2.009	OCA	ORIGINATING AGENCY CASE NUMBER
2.010	CIN	CONTRIBUTOR CASE IDENTIFIER NUMBER
2.010A	CIN_PRE	CONTRIBUTOR CASE PREFIX
2.010B	CIN_ID	CONTRIBUTOR CASE ID
2.011	CIX	CONTRIBUTOR CASE IDENTIFIER EXTENSION
2.012	LCN	FBI LATENT CASE NUMBER
2.013	LCX	FBI LATENT CASE EXTENSION
2.014	FBI	FBI NUMBER
2.015	SID	STATE IDENTIFICATION NUMBER
2.016	SOC	SOCIAL SECURITY ACCOUNT NUMBER
2.017	MNU	MISCELLANEOUS IDENTIFICATION NUMBER
2.018	NAM	NAME
2.019	AKA	ALIASES
2.020	POB	PLACE OF BIRTH
2.021	CTZ	COUNTRY OF CITIZENSHIP
2.022	DOB	DATE OF BIRTH
2.023	AGR	AGE RANGE
2.024	SEX	SEX

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-2. COMPLETE ELEMENT CROSS-REFERENCE LIST BY TAG NUMBER

MEFTS Tag Number	Element ID	Element Name
2.025	RAC	RACE
2.026	SMT	SCARS, MARKS, AND TATTOOS
2.027	HGT	HEIGHT
2.028	HTR	HEIGHT RANGE
2.029	WGT	WEIGHT
2.030	WTR	WEIGHT RANGE
2.031	EYE	COLOR EYES
2.032	HAI	HAIR COLOR
2.033	FPC	NCIC FINGERPRINT CLASSIFICATION
2.034	PAT	PATTERN LEVEL CLASSIFICATIONS
2.034A	FGP	FINGER NUMBER
2.034B	PATCL	PATTERN CLASSIFICATION CODE
2.035	PPA	"PALM PRINTS AVAILABLE" INDICATOR
2.036	PHT	"PHOTO AVAILABLE" INDICATOR
2.037	RFP	REASON FINGERPRINTED
2.038	DPR	DATE PRINTED
2.039	EAD	EMPLOYER AND ADDRESS
2.040	OCP	OCCUPATION
2.041	RES	RESIDENCE OF PERSON FINGERPRINTED
2.042	MIL	MILITARY CODE
2.043	TSR	TYPE OF SEARCH REQUESTED
2.044	GEO	GEOGRAPHICAL AREA OF SEARCH
2.045	DOA	DATE OF ARREST
2.046	DOS	DATE OF ARREST-SUFFIX
2.047	ASL	ARREST SEGMENT LITERAL
2.047A	DOO	DATE OF OFFENSE
2.047B	AOL	ARREST OFFENSE LITERAL
2.048	CSR	CIVIL SEARCH REQUESTED INDICATOR
2.051	CSL	COURT SEGMENT LITERAL
2.051A	CDD	COURT DISPOSITION DATE
2.051B	COL	COURT OFFENSE LITERAL
2.051C	CPL	OTHER COURT SENTENCE PROVISION LITERAL
2.053	OFC	OFFENSE CATEGORY
2.054	SSD	CUSTODY OR SUPERVISORY STATUS - START DATE
2.055	SLE	CUSTODY OR SUPERVISORY STATUS LITERAL
2.056	ICO	IDENTIFICATION COMMENTS
2.057	FNR	FINGER NUMBER(S) REQUESTED

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-2. COMPLETE ELEMENT CROSS-REFERENCE LIST BY TAG NUMBER

MEFTS Tag Number	Element ID	Element Name
2.059	SRF	SEARCH RESULTS FINDINGS
2.060	MSG	STATUS/ERROR MESSAGE
2.061	CST	CASE TITLE
2.062	IMT	IMAGE TYPE (IF TYPE -7 IMAGES)
2.063	PTD	PERSON TYPE DESIGNATOR
2.064	CAN	CANDIDATE LIST
2.064A	FNU	FBI NUMBER
2.064B	NAM	NAME
2.065	RSR	REPOSITORY STATISTICS RESPONSE
2.067	IMA	IMAGE CAPTURE EQUIPMENT
2.067A	MAK	ORIGINATING FINGERPRINT READING SYSTEM MAKE
2.067B	MODL	ORIGINATING FINGERPRINT READING SYSTEM MODEL
2.067C	SERNO	ORIGINATING FINGERPRINT READING SYSTEM SERIAL NUMBER
2.069	ETC	ESTIMATED TIME TO COMPLETE
2.070	RAP	REQUEST FOR ELECTRONIC RAP SHEET
2.071	ACN	ACTION TO BE TAKEN
2.072	FIU	FINGERPRINT IMAGE(S) UPDATED
2.073	CRI	CONTROLLING AGENCY IDENTIFIER
2.074	FGP	FINGER POSITION
2.075	ERS	ELECTRONIC RAP SHEET
2.076	PRI	PRIORITY
2.077	CFS	CANCEL FP SEARCH
2.078	PEN	PENETRATION QUERY RESPONSE
2.079	NCR	NUMBER OF CANDIDATE'S IMAGES RETURNED
2.080	EXP	RESPONSE EXPLANATION
2.082	REC	RESPONSE CODE
2.083	ULF	UNSOLVED LATENT FILE
2.084	AMP	AMPUTATED OR BANDAGED
2.084A	FGP	FINGER NUMBER
2.084B	AMPCD	AMPUTATED OR BANDAGED CODE
2.085	CRN	CIVIL RECORD NUMBER
2.086	SCNA	AFIS SEGMENT CONTROL NUMBER
2.087	TAA	TREAT AS ADULT
2.088	NOT	NOTE FIELD
2.089	MSC	MATCHSCORE
2.091	RCD1	RIDGE CORE DELTA ONE FOR SUBPATTERN CLASSIFICATION
2.091A	FGP	FINGER NUMBER

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

TABLE F-2. COMPLETE ELEMENT CROSS-REFERENCE LIST BY TAG NUMBER

MEFTS Tag Number	Element ID	Element Name
2.091B	RCN1	RIDGE COUNT NUMBER 1
2.092	RCD2	RIDGE CORE DELTA TWO FOR SUBPATTERN CLASSIFICATION
2.092A	FGP	FINGER NUMBER
2.092B	RCN2	RIDGE COUNT NUMBER 2
2.380	FPO	FINGER PRINTING OFFICIAL
2.381	CMT	COMMENTS
2.382	OBT	OFFENSE BASED TRACKING NUMBER
2.383	RES	RESERVED
2.384	RES	RESERVED
2.385	RES	RESERVED
2.386	RES	RESERVED
2.387	RES	RESERVED
2.388	RES	RESERVED
2.389	RES	RESERVED

NOTE: The alpha suffixes shown here on MEFTS tags are only to identify subfields. They must never be used in message construction.

APPENDIX G

ACRONYMS

APPENDIX G

ACRONYMS

AFIS	Automated Fingerprint Identification System
AMN	Amnesia Victim
ANSI	American National Standards Institute
APB	Advisory Policy Board
CAR	Criminal Ten-Print Submission (Answer Required)
CFS	Comparison Fingerprint Image(s) Submission
CGA	Compression Algorithm
CJIS	Criminal Justice Information Services
CMT	Comments
CNA	Criminal Ten-Print Submission (No Answer Necessary)
CSN	Candidate Sequence Number
DEK	Known Deceased
DEU	Unknown Deceased
ELR	Evaluation Latent Fingerprint Submission Request
ERRA	Administrative Transaction Error
ERRI	Image Transaction Error
ERRL	Latent Transaction Error
ERRT	Ten-print Transaction Error
FANC	Federal Applicant (No Charge)
FAUF	Federal Applicant User Fee
FBI	Federal Bureau of Investigation
FIS	Fingerprint Image Submission
FISR	Fingerprint Image Submission Response
FPO	Name of Fingerprint Official
GCA	Grayscale Compression Algorithm
IAFIS	Integrated Automated Fingerprint Identification System
ICN	IAFIS Control Number
III	Interstate Identification Index
IRQ	Fingerprint Image Request
IRR	Fingerprint Image Request Response
ITN	Identification Tasking and Networking
LFFS	Latent Fingerprint Features Search
LFIS	Latent Fingerprint Image(s) Search
LFS	Latent Fingerprint Image(s) Submission

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LFMR	Latent File Maintenance Response
LSR	Latent Submission Results
MAP	Miscellaneous Applicant Civil
MCS	Major Case Image(s) Submission
MFC	Message Field Code
MNC	Maximum Number of Candidates
MPR	Missing Person
MSG	Message
MTF	Modular Transfer Function
NAR	Notification of Action Response
NCIC	National Crime Information Center
NCR	Number of Candidates Returned
NFF	National Fingerprint File
NFUF	Non-Federal Applicant User Fee
NIST	National Institute of Standards and Technology
NRC	Number of Required Candidates
OBT	Offense Based Tracking Number
OCS	Officers' Candidate School
RMS	Root Mean Squared
SCNA	AFIS Segment Control Number
SID	State Identification Number
SRE	Submission Results — Electronic
SRF	Search Results Findings
SRL	Search Results — Latent
SRT	Search Results — Ten-Print
TBD	To Be Determined
TBR	To be Resolved
TOT	Type of Transaction
TPFS	Ten-Print Fingerprint Features Search
TPIS	Ten-Print Fingerprint Image Searches
TSR	Type of Search Requested
ULAC	Unsolved Latent Add Confirm Request
ULAR	Unsolved Latent Add Confirm Response
ULD	Unsolved Latent Record Delete Request
ULDR	Unsolved Latent Delete Response
ULF	Unsolved latent File
ULM	Unsolved Latent Match Response
UULD	Unsolicited Unsolved Latent Delete
WSQ	Wavelet Scalar Quantization

APPENDIX H

TRANSACTION ERROR MESSAGES

TABLE H-1 - TRANSACTION ERROR MESSAGES

Code	Error Condition	MDD Error Description	Count	Insert#1	Insert#2	Insert#3
A0001	Unauthorized ULF delete	Requested deletion from ULF not authorized.	0			
A0004	Unauthorized MEFTS/EFTS transaction	Requestor is not authorized for transaction type %1.	1	TOT of incoming message		
A0008	Unauthorized ULF Add Confirm	Requested ULF Add Confirm request not authorized.	TBD			
A0009	Latent Search Queue Request Reject	This Latent Search Queue modification request is invalid.				
E0001	Required element missing	Mandatory IAFIS-generated element %1 was not supplied in message.	1	Element Name		
E0002	Element failed validation	Element %1, with value of [%2] contains invalid data.	2	Element Name	Element Value	
E0003	Element failed validation	Element %1, with value of [%2] contains invalid data. The data may not comply with the acceptable range of values.	2	Element Name	Element Value	
E0004	MEFTS/EFTS record parse error	MEFTS/EFTS logical record type %1 containing IDC of [%2] in message does not comply with message Contents or Length field values or the record is not parseable.		2 Type	Logical Record value -1 if the named logical record is missing or is a Type 1 record.	IDC value or the
E0005	MEFTS/EFTS field parse error	MEFTS/EFTS field %1 could not be parsed. Check use of separator characters and presence of all required subfields.		1 Field Tag		
E0006	Field relationship error	The value of element %1 is inconsistent with the value of element %2.	2	Element Name	Element Name	
H0001	Required header element missing	Mandatory element %1 was not supplied in message header.	1	Element Name		
H0002	Header element failed validation	Header element %1, with value of [%2] contains invalid data.	2	Element Name	Element Value*	
H0003	Header element failed validation	Header element %1, with value of [%2], contains invalid data. The data may not comply with the acceptable range of values.	2	Element Name	Element Value	
L0001	SLC Repositories Full	SLC repositories is full; cannot add another subject.	0			
L0002	Subject does not exist in Criminal or Civil File	Subject with identifier %1 does not exist in repository.	1	UCN		

L0003	SLC Repository does not exist	Cannot perform requested action, SLC repository %1 does not exist. Inform Segment Administrator of possible SLC File Synchronization error.	1	NDR		
L0004	File image not available	The images for subject identifier %1 are not available from repository %2 .	2	UCN	NDR	
L0005	High Penetration Search Rejected	Latent search penetration estimate of %1 percent exceeds the allowable limit of %2 percent.	2	Request Percent	Authorization Cap	
L0006	Invalid image type	The supplied image(s) could not be used for characterization of subject.	0			
L0007	Features not usable	The supplied features could not be used for requested search .	0			
L0008	Characteristics quality low	The quality of the characteristics is too low to be used .	0			
L0009	Image decompression error	Error occurred during decompression of the fingerprint images.	0			
L0010	Cannot search an empty SLC repository	A search request was made against SLC repository number %1 which currently contains no subjects. To differentiate from a search with no results, this error is being returned.	1	NDR		
L0011	Subject already exists, duplicates not allowed in Criminal or Civil Files	A request was made to add subject identifier %1 to Criminal or Civil File in which the subject already exists.	1	UCN		
L0013	General Logic Error	A general logic error was detected that is not currently defined. Optional error message: %1 %2 %3	0-3	Free Text	Free Text	Free Text
L0018	Latent search queue full	The requested search exceeds the allocation for your organization or	0			
L0019	Subject already exists, duplicate identifiers not allowed in SLC file	A request was made to add subject identifier %1 to SLC repository %2 in which the subject already exists. Subjects may NOT be duplicated within this repository.	2	UCN	NDR	
L0020	Subject does not exist in SLC file	A request was made to delete or update subject identifier %1 to SLC repository %2. The subject does not exist in this repository.	2	UCN	NDR	
L0023	SID required	NFF participants must provide a SID on a criminal retain ten print submission.	0			
L0024	SID already exists for NFF submission	The SID provided in the criminal ten print submission, %1, is already associated with the subject with FBI	2	SID	FNU	

		number %2 and could not be established for a new NFF subject.			
L0025	SID already exists	The SID provided in the criminal ten print submission, %1, is already associated with the subject with FBI number %2 and could not be established for a new subject.	2	SID	FNU
L0026	PUR not allowed for subject	Purpose code not allowed for subject %1.	1	FNU	
L0028	Exceeded ICO maximum length	Cannot add data because the maximum length of ICO field would be exceeded. There are only %1 characters remaining in the ICO field.	1	Number of unused bytes remaining in ICO field (ASCII representation).	
L0032	Duplicate DOA and DOS	Cannot update subject's record because DOA %1 and corresponding DOS already exist.	1	DOA	
L0033	Element Entry Limit Exceeded	Update of record would cause the maximum number of entries of the %1 field to be exceeded.	1	Field Name	
L0034	Existing identification comments	Cannot overwrite existing ICO.	0		
L0035	DOD prior to DOA	Date of arrest in submission is after date of death in subject's record.	0		
L0036	Conversion anomaly	Cannot add a conversion cycle for an NFF participating state.	0		
L0037	DOA not later than existing DOB	Date of arrest in submission is prior to existing date of birth in the subject's record.	0		
L0038	SID already exists from NFF state	Cannot establish new SID %1 for this subject because your state has already established SID %2 for this subject.	2	SID from submission	Existing SID
L0040	No Matching DOA/DOS	There is no matching DOA/DOS in the subject's record.	0		
L0041	Cannot Update Due to Inactive Data	The subject's cycle cannot be updated due to inactive status.	0		
L0042	No Matching Court Data	Matching court data does not exist.	0		
L0043	No Corresponding Court Count	Cannot add supplemental court data - no corresponding count.	0		
L0044	No Update Of NFF Record	Cannot update NFF record.	0		
L0045	Data Already On File	Cannot update this cycle - data already exists in record.	0		

L0046	TPTP Notify Error	AFIS Search number %1 or candidate number %2 cannot be associated with previous search.	2	SCNA	UCN
L0047	ULF Add Confirm Error	Cannot perform the ULF add confirm request for %1 because the subject is not present in the ULF.	1	SCNA	
L0049	No Matching Data Found	No data found to match input value %1 with record value %2.	2	Name of field	field value
L0051	Cycle is not sealed.	Cannot apply unseal request because cycle has not previously been sealed.	0		
L0052	Submitter is not Authorized to Update Record	Requestor is not authorized to perform the requested file maintenance action.	0		
L0057	Improper Finger Specified	Latent searches cannot process %1 possible finger positions for %2 supplied search fingers.	2	FGN_CNT	AFV_CNT
L0058	UCN and NDR format incompatible	The designated repository (%1) does not correlate to the provided record format number (%2).	2	NDR	UCN
L0059	Duplicate fingers	Ten finger information supplied for field %1 (%2) is incorrect..	2	Name of field	Field Value
L0060	Death is already recorded for this subject.	An indication that this subject is deceased is currently present in this record.	0		
L0061	Non-matching DOB	DOB on submission document does not match DOB in record.	0		
L0062	Reference Element Name Mismatch	The element %1 provided for reference in this maintenance request is not present in this record.	1	Name of Field	
L0063	Existing Data Condition	Data cannot be added to this field, %1, because data is already present.	1	Name of Field	
L0064	Duplicate Data Condition	An attempt to add or modify data that duplicates existing data in field %1.	1	Name of Field	
L0065	SID/ORI Mismatch	The SID in the maintenance request is not consistent with the ORI in the arrest.	0		
L0072	No Match for Data	Cannot match data in field %1 in this maintenance request with any data in field %2 the record.	2	Field Name	Field Name
L0078	Field Value Mismatch	Cannot find match in the database for %1 containing value %2.	2	Field Name	Field Value
L0079	Invalid SID	The SID %1 failed III edit check.	1	SID value	
L0080	Pointer/Data Mismatch	Cannot update data associated with active state pointer because of mismatch with %1 field.	1	Field Name	
L0081	Attempt to Modify Empty Field	A maintenance request has been made against empty field %1.	1	Field Name	

L0089	Year of Birth out of range	The year of birth in the maintenance request is not within ten years of the DOB(s) contained in the subject	0			
L0090	No Name Match	The name in the maintenance request does not match any name contained in the indicated subject record.	0			
L0098	Arrest Segment Data Error	This maintenance request must include ACH, AON, and AOL.	0			
L0106	ORI/ZIP	The format of the field ZIP is not consistent with the country specified by ORI.	0			
L0109	Poor Image Quality	The quality of the fingerprint images is too poor to permit processing.				
L0111	Image Sequence Error	Submitted ten-print finger images are out of sequence.				
L0112	No statutory authority	The agency indicated by the ORI or CRI in this submission is not authorized to request this service.				
L0113	Non-serious charge	This submission references an arrest charge representing a non-criterion offense.				
L0114	TOT/Submission Data Error	The TOT is not representative of the data contained in this submission.				
L0115	Other QC Error					
L0116	Fingerprint Pattern Quality Error	Fingerprint pattern(s) not discernible				
L0117	Fingerprint Pattern Area Error	Insufficient pattern area(s) recorded for identification purposes				
L0118	ITN Image Quality/Sequence Error	Erroneous or incomplete fingerprint(s) on images: fingers or hands out of sequence; printed twice; missing and no reason given.				
L0119	Charge listed needs literal translation	The charge listed in the submission requires that a literal translation be provided.				
L0122	No SLC Add	Unable to complete SLC Add for identifier %1 in repository %2 and user %3.	3	UCN	NDR	EID
L0123	No SLC Delete	Unable to complete SLC Delete for identifier %1 in repository %2 and user %3.	3	UCN	NDR	EID
L0125	Invalid ORI	This ORI, %1, is not present in the CCA file.	1	ORI value from Maintenance Request		
L0126	Invalid CRI	This CRI, %1, is not present in the CCA file.	1	CRI value from Maintenance Request		

L0131	Required element missing	Mandatory user-provided element %1 was not supplied in message.	1	Element Name		
L0132	STOT/NDR Discrepancy	The STOT, %1, for this request is not consistent with placing the images in the %2 file.	2	STOT value	Name of the target file (NDR)	
L0133	Fingerprint Image Submission Non-ident	The subject of this Fingerprint Image Submission contains FNU #%1, which is not contained in the FBI Subject Criminal History files.	1	FNU		
L0134	Ad Hoc Subject Search String Syntax Error	The submitted search string text contains a syntax error. The attachment includes the portion of the string up to the error, shown here: %1	1	AHSPARMS		
L0135	Ad Hoc Subject Search Candidate Cap Exceeded	The number of candidates meeting the submitted search criteria exceeds the maximum allowed. Refine the criteria before resubmitting the search.				
S0002	General segment error	A general segment error was detected that is not currently defined. Optional error message: %1 %2%3	0-3	Free Text	Free Text	Free Text
S0003	Invalid Environment	The message environment does not match the current environment.	0			
S0004	Transaction in Progress	A repeated message was received for which the transaction has already been started.	0			
S0005	Tenprint Search Notification Error	An error occurred during the routing and reporting of AFIS tenprint search notification.	0			
W0001	Authorized High Penetration Search Submitted	A high penetration search estimated at %1 percent is within the allowable limit of %2 and is being processed.	2	Request Percent	Authorization Cap	
W0002	Manual Arrest Records	The Criminal History of subject %1 is contained in the FBI manual files	1	FNU		
W0003	Unassigned FBI Number	Subject %1 may be in the FBI manual files, but does not exist in the Criminal History Files.	1	FNU		
W0004	Existing Post-Consolidation Information in Record	The consolidated record with kept FBI number %1 that was restored to unconsolidated records had information entered since the consolidation.	1	FBK		

Key	Error Class
A	Authorization - Security Errors
E	Element - Intersegment and External Message Element Errors
H	Header - Intersegment Message Header Errors
L	Logic - Operational Errors
R	Error with Retry allowed
S	Status - Segment Status Errors
W	Warning only

Notes:

1. For errors detected in MEFTS messages, the Element Name will be the MEFTS Field Tag.
2. In the MDD Error description column, the % number expression represents the value provided in the like-numbered Insert column.