

File Formats

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Agenda

ACH File Structure

- ACH Data Specifications
- ACH Format Specifications

ACH Records

- SEC Codes, including IAT and Healthcare

Returns

Rejected files

Balanced Files vs. Unbalanced Files

09/09/03

AUTOMATED CLEARING AND SETTLEMENT FACILITY

PAGE 1

0910-0008-0

0917-1234-5

ENTRY REGISTER

RECEIVING POINT	0917-1234-5	FILE DATE	030909
RECEIVING INSTITUTION	0917-1234-7	FILE TIME	09:45
		FILE ID	A
COMPANY	ST PAUL SAINTS	1417654321	SETT 252 OSC 1 OFFICE/BRANCH PAYROLL
	PAYROLL	EFFECTIVE ENTRY DATE	09-10-03 PPD ORIGIN NO. 0910-1111-1 BATCH ID NO 12345671
INDIVIDUAL NAME	INDIVIDUAL ID NUMBER	TRACE NUMBER	ENTRY TYPE ACCOUNT NUMBER DISC DEBIT AMT CREDIT AMT
PAUL LARSEN	9753124	091011110002345	DEMAND CR 987-654-333 3,454.55
EARL SCHAFFER	9753122	091011110002347	DEMAND CR 935-864-215 5,658.88
	BATCH TOTALS	ENTRY-ADDENDA COUNT	2 TOTAL DR.S TOTAL CR.S
			0.00 9,113.43
COMPANY	SOUTHWEST CORP	1723765679	SETT 252 OSC 1
	CASH CONC	EFFECTIVE ENTRY DATE	09-09-03 CCD ORIGIN NO. 0210-0022 BATCH I.D. NO 0000034
INDIVIDUAL NAME	INDIVIDUAL ID NUMBER	TRACE NUMBER	ENTRY TYPE ACCOUNT NUMBER DISC DEBIT AMT CREDIT AMT
LOCATION #25	25 37687	0210000220034287	DEMAND DR 33-257 24,587.50
	BATCH TOTALS	ENTRY-ADDENDA COUNT	1 TOTAL DR.S TOTAL CR.S
			24,587.50 0.00

Data Specifications

Alphabetic/Alphameric

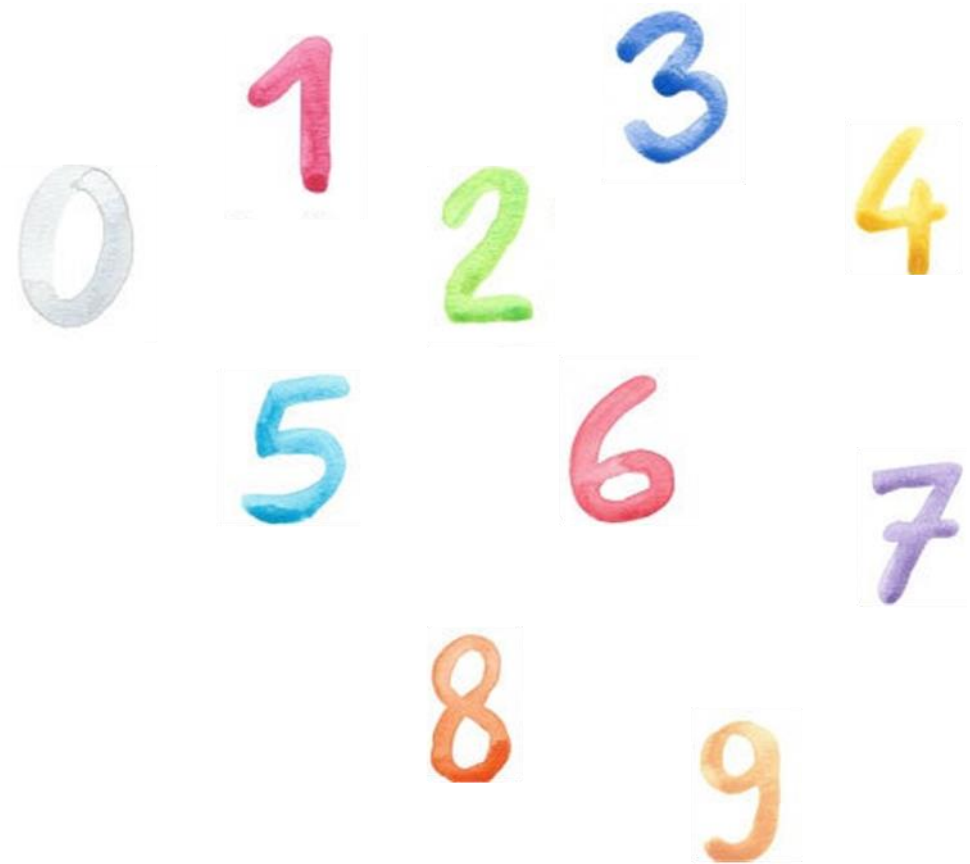
- 0-9, A-Z, a-z, space, EBCDIC values greater than hexadecimal “3F”, ASCII values greater than hexadecimal “1F”
- Left Justified
- Space Filled
- Some fields require Upper Case
 - SEC codes, Return & NOC codes, File Id
 - Company Entry Descriptions – REVERSAL, RECLAIM, NONSETTLED, AUTOENROLL, REDEPCHECK, NO CHECK, RETURN FEE, RETRYPYMT
 - Company Name – XCK – CHECK DESTROYED



Data Specifications

Numeric

- 0-9
- Right Justified
- Zero Filled
- Must be unsigned: no + or – signage



ACH File Structure

File Header (Record #1)

Company Batch Header (Record #5)

Entry Detail (Record #6)

Addenda (Record #7)

Entry Detail (Record #6)

Company Batch Control (Record #8)

File Control (Record #9)

ACH File Structure – Quiz

- ▶ The File Header Record always starts with the number..... '1'
- ▶ The Company/Batch Header Record always starts with the number..... '5'
- ▶ The Entry Detail Record always starts with the number..... '6'
- ▶ What happened to Records '2', '3', and '4'?

Format Specifications

Only 1 File Header record per ACH file

Only 1 File Control record per ACH file

- Within each ACH file, there can be multiple Batches
- Only 1 Batch Header record per batch
- Only 1 Batch Control record per batch
- Within each batch, there can be multiple detail entry and addenda records
 - Number of Addenda record(s) are determined by Standard Entry Class code (in batch header record)
 - Addenda records are “additional payment-related information” that pertain to the entry detail record they are attached to

Field Inclusion Requirements

Each ACH Record contains 94 characters

- Each record contains “fields”

Each field within an ACH record format has a field inclusion requirement

- M – Mandatory (will reject at the ACH Operator)
- R – Required (may be returned by the RDFI)
- O – Optional (field used at the discretion of the Originator or ODFI; however, if info is in optional field, it must be included when returning the item)

Each field within each ACH record format contains specific contents

ACH Record Format Specifications

M

- Omission will cause the file, batch, or entry to be rejected by the ACH Operator

R

- Omission of this field may cause the entry to reject at the RDFI

O

- Inclusion of data in this field is at the discretion of the ODFI and the Originator

File Header Record “1”

- ▶ Always the first record of the file
- ▶ Identifies the immediate origin of the file
 - ▶ Sending Point or ACH Operator
- ▶ Identifies the destination of the file
 - ▶ Receiving Point or ACH Operator
- ▶ Includes identification fields which can be used to identify the file uniquely
 - ▶ File Creation Date (YYMMDD)
 - ▶ File Creation Time (HHMM)
 - ▶ File ID Modifier – a single position field (Upper Case A-Z or Numeric 0-9)





File Header Record “1”

- ▶ Designates physical file characteristics
 - ▶ Priority Code Field presently uses a value of '01'
 - ▶ Record Type Code Field is always '1'
 - ▶ Record Size Field is always '094'
 - ▶ Blocking Factor Field is always '10'
 - ▶ Format Code Field is always '1'
- ▶ There is always only ONE File Header Record in each file
- ▶ All ACH files use the SAME File Header Record fields and layout

File Header Record “1”

- ▶ What does a file header record tell us?
 - ▶ Who is sending the file
 - ▶ Where the file is going
 - ▶ File creation date and time

NOTE: picture an ACH File Header as an envelope

- a return address to identify who is sending it
- an address to tell us where it is going and
- a stamp from post office with date and time



File Header Record “1”

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
DATA ELEMENT NAME	RECORD TYPE CODE	PRIORITY CODE	IMMEDIATE DESTINATION	IMMEDIATE ORIGIN	FILE CREATION DATE	FILE CREATION TIME	FILE ID MODIFIER	RECORD SIZE	BLOCKING FACTOR	FORMAT CODE	IMMEDIATE DESTINATION NAME	IMMEDIATE ORIGIN NAME	REFERENCE CODE
<i>Field Inclusion Requirement</i>	M	R	M	M	M	O	M	M	M	M	O	O	O
<i>Contents</i>	'1'	Numeric	bTTTTAAAAC	bTTTTAAAAC	YYMMDD	HHMM	UPPER CASE A-Z NUMERIC 0-9	'09'	'10'	'1'	Alphanumeric	Alphanumeric	Alphanumeric
<i>Length</i>	1	2	10	10	6	4	1	3	2	1	23	23	8
<i>Position</i>	01-01	02-03	04-13	14-23	24-29	30-33	34-34	35-37	38-39	40-40	41-63	64-86	87-94

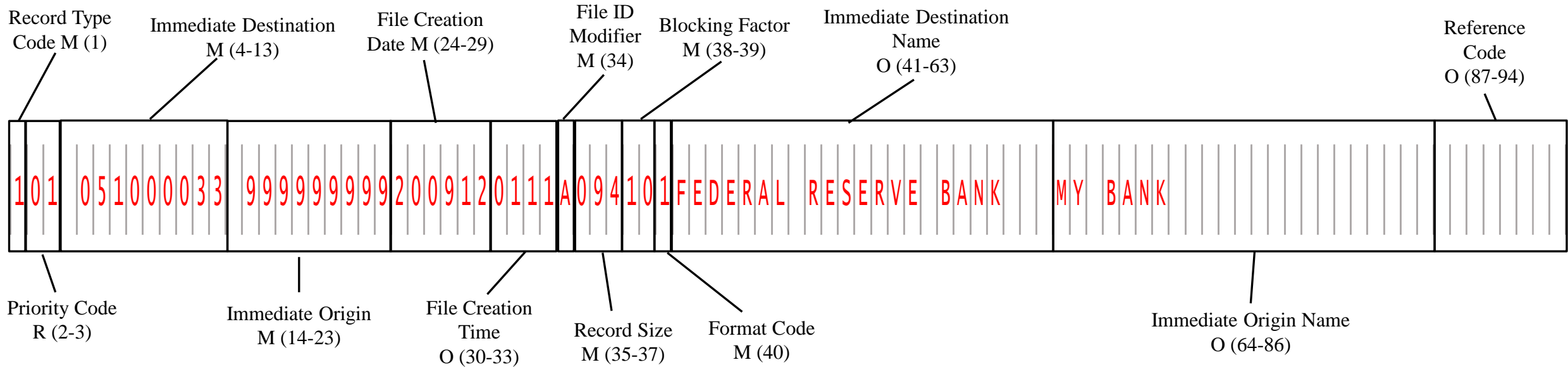
FIELD	1	2	3	4	5	6
DATA ELEMENT NAME	RECORD TYPE CODE	PRIORITY CODE	IMMEDIATE DESTINATION	IMMEDIATE ORIGIN	FILE CREATION DATE	FILE CREATION TIME
<i>Field Inclusion Requirement</i>	M	R	M	M	M	O
<i>Contents</i>	'1'	Numeric	bTTTTAAAAC	bTTTTAAAAC	YYMMDD	HHMM
<i>Length</i>	1	2	10	10	6	4
<i>Position</i>	01-01	02-03	04-13	14-23	24-29	30-33

File Header Record “1”

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
DATA ELEMENT NAME	RECORD TYPE CODE	PRIORITY CODE	IMMEDIATE DESTINATION	IMMEDIATE ORIGIN	FILE CREATION DATE	FILE CREATION TIME	FILE ID MODIFIER	RECORD SIZE	BLOCKING FACTOR	FORMAT CODE	IMMEDIATE DESTINATION NAME	IMMEDIATE ORIGIN NAME	REFERENCE CODE
Field Inclusion Requirement	M	R	M	M	M	O	M	M	M	M	O	O	O
Contents	'1'	Numeric	bTTTTAAAC	bTTTTAAAC	YYMMDD	HHMM	UPPER CASE A-Z NUMERIC 0-9	'094'	'10'	'1'	Alphameric	Alphameric	Alphameric
Length	1	2	10	10	6	4	1	3	2	1	23	23	8
Position	01-01	02-03	04-13	14-23	24-29	30-33	34-34	35-37	38-39	40-40	41-63	64-86	87-94

7	8	9	10	11	12	13
FILE ID MODIFIER	RECORD SIZE	BLOCKING FACTOR	FORMAT CODE	IMMEDIATE DESTINATION NAME	IMMEDIATE ORIGIN NAME	REFERENCE CODE
M	M	M	M	O	O	O
UPPER CASE A-Z NUMERIC 0-9	'094'	'10'	'1'	Alphameric	Alphameric	Alphameric
1	3	2	1	23	23	8
34-34	35-37	38-39	40-40	41-63	64-86	87-94

File Header Record "1"

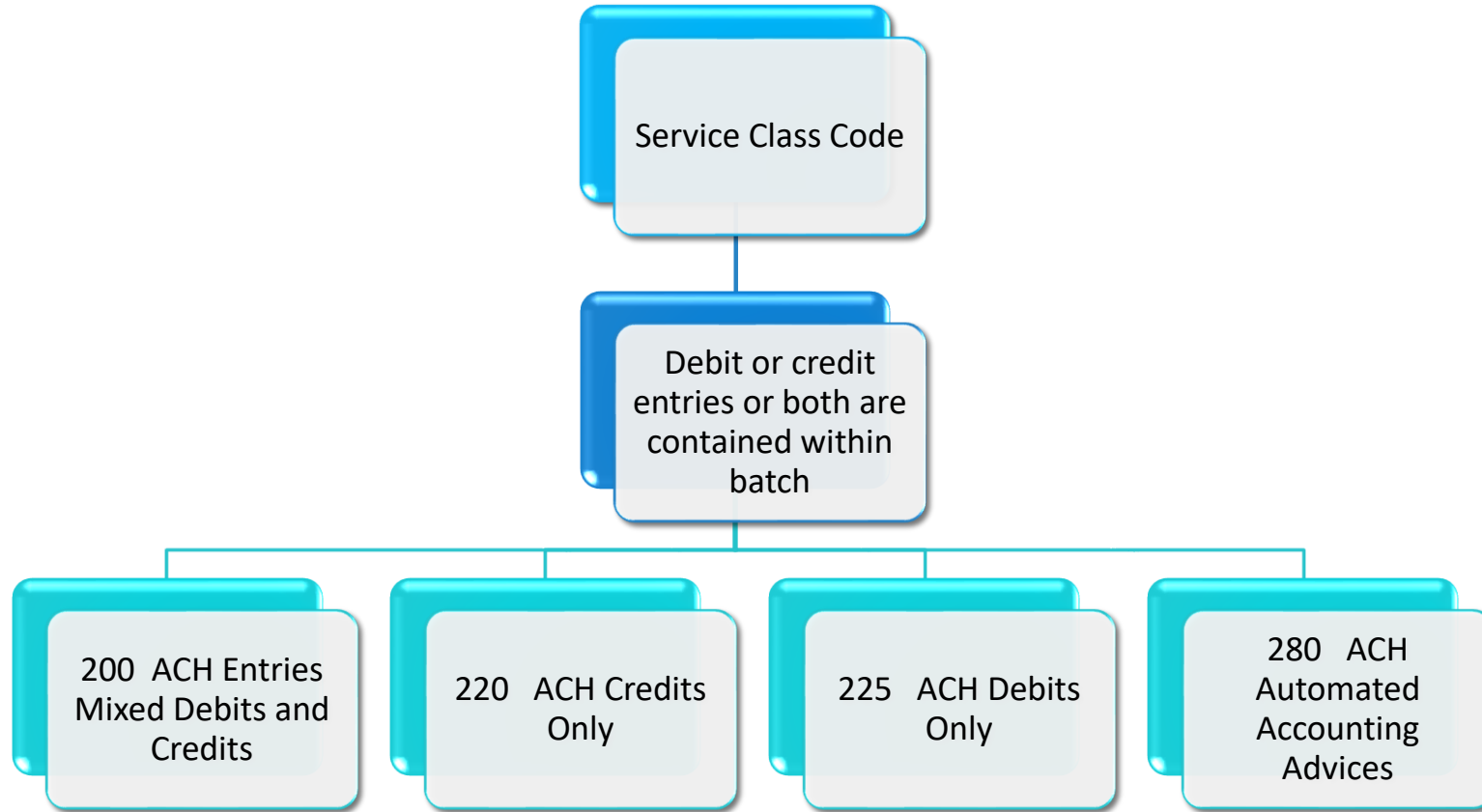


Company/Batch Header Record “5”

- ▶ Tells us everything about the company/originator & about the type of detail records to follow
- ▶ Always the second record in the file
- ▶ May have multiple batches in a file
- ▶ Contains:
 - ▶ Company ID
 - ▶ Standard Entry Class Code
 - ▶ Company Entry Description
 - ▶ Effective Date
 - ▶ Settlement Date
 - ▶ ODFI Routing Number

A large, bold, blue number '5' with a slight shadow effect, positioned on the right side of the slide.

Company Batch Header “5”



Company Name

Identifies the originator

- Who received authorization

Recognized by Receiver

- Requires an ACH Originator to clearly identify itself in an ACH entry through the use of a name that is known to and readily recognized by the Receiver

Payee – ARC, BOC, RCK

Return Fee – Payee of Check or same as related Entry

Merchant – POP, POS, SHR

Check Destroyed – XCK

WEB Credit P2P – P2P Service Provider

Company ID

This alphanumeric 10-position field is used to identify an Originator

May begin with an ANSI one-digit Identification Code Designator, followed by the identification number

- '1' – followed by an Employer Identification Number (EIN)
- '3' – followed by a Data Universal Number Systems (DUNS)
- '9' – followed by a User Assigned Number

Standard Entry Class (SEC) Code

What does the SEC Code do?

Identifies the payment types within an ACH batch

3-character code (i.e. CCD, CTX, PPD)

Standard Entry Class (SEC) Code

What does the SEC Code tell us about a specific batch?

Signifies specific addenda record info

based on the SEC codes, addenda records can be required or optional

SEC codes are used throughout the Nacha Rule

See Chart in Rule Book

Book referencing field by data element name

Specific SEC codes require specific data in fields within the ACH record

Company Entry Description Field

AUTOENROLL (for ENR entries)

Company Name field

HCCLAIMPMT
(Healthcare)

NONSETTLED (for entries where settlement can't be completed)

NO CHECK (for XCK entries)

Company Entry Description Field

RECLAIM (for
Commercial
Reclamation
entries)

REDEPCHECK
(for RCK entries)

RETRYPYMT (for
reinitiated
entries)*

RETURN FEE
(Return Fee
Entries)

REVERSAL (for
Reversal entries)

ACCTVERIFY

WEB Credit P2P*

- contains a value that lets Receiver know the entry is a P2P transaction
- i.e. P2P – in the Company Batch Header Record

Company Batch Header “5”

Effective Entry Date (wish date)

- The date the originator would like settlement

Settlement Date (Julian)

Originator Status Code

- 0 - ADV file - prepared by an ACH Operator
- 1 - Originator is an F.I. (from the operators point of view)
- 2 - Originator is a Government Agency or other agency not subject to the ACH Rules

Originating DFI Identification

- ODFI's ABA number -- the FI initiating the ACH entry

Information in this record applies to all detail records in batch

Company/Batch Header Record “5”

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	COMPANY NAME	COMPANY DISCRETIONARY DATA	COMPANY IDENTIFICATION	STANDARD ENTRY CLASS CODE	COMPANY ENTRY DESCRIPTION	COMPANY DESCRIPTIVE DATE	EFFECTIVE ENTRY DATE	SETTLEMENT DATE (JULIAN)	ORIGINATOR STATUS CODE	ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
Field Inclusion Requirement	M	M	M	O	M	M	M	O	R	Inserted by ACH Operator	M	M	M
Contents	'5'	Numeric	Alphabetic	Alphabetic	Alphabetic	Alphabetic	Alphabetic	Alphabetic	YYMMDD	Numeric	Alphabetic	TTTTAAA	Numeric
Length	1	3	16	20	10	3	10	6	6	3	1	3	7
Position	01-01	02-04	05-20	21-40	41-50	51-53	54-63	64-69	70-75	76-78	79-79	80-87	88-94

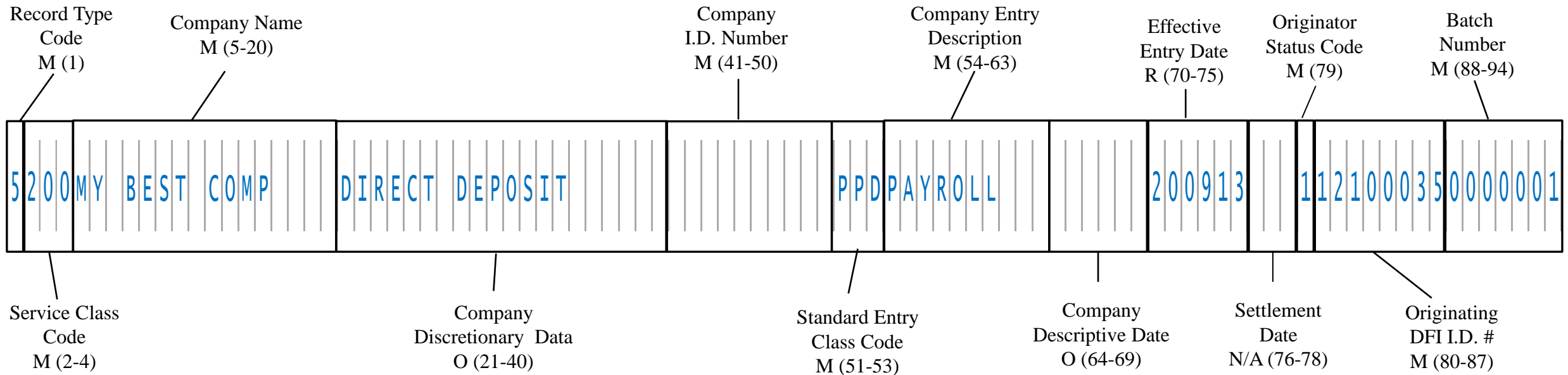
FIELD	1	2	3	4	5	6
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	COMPANY NAME	COMPANY DISCRETIONARY DATA	COMPANY IDENTIFICATION	STANDARD ENTRY CLASS CODE
Field Inclusion Requirement	M	M	M	O	M	M
Contents	'5'	Numeric	Alphabetic	Alphabetic	Alphabetic	Alphabetic
Length	1	3	16	20	10	3
Position	01-01	02-04	05-20	21-40	41-50	51-53

Company/Batch Header Record “5”

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	COMPANY NAME	COMPANY DISCRETIONARY DATA	COMPANY IDENTIFICATION	STANDARD ENTRY CLASS CODE	COMPANY ENTRY DESCRIPTION	COMPANY DESCRIPTIVE DATE	EFFECTIVE ENTRY DATE	SETTLEMENT DATE (JULIAN)	ORIGINATOR STATUS CODE	ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
Field Inclusion Requirement	M	M	M	O	M	M	M	O	R	Inserted by ACH Operator	M	M	M
Comments	'S'	Numeric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	YYMMDD	Numeric	Alphameric	TTTTAAAA	Numeric
Length	1	3	18	20	10	3	10	8	6	3	1	8	7
Position	01-01	02-04	05-20	21-40	41-50	51-53	54-63	64-69	70-75	76-78	79-79	80-87	88-94

7	8	9	10	11	12	13
COMPANY ENTRY DESCRIPTION	COMPANY DESCRIPTIVE DATE	EFFECTIVE ENTRY DATE	SETTLEMENT DATE (JULIAN)	ORIGINATOR STATUS CODE	ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
M	O	R	Inserted by ACH Operator	M	M	M
Alphameric	Alphameric	YYMMDD	Numeric	Alphameric	TTTTAAAA	Numeric
10	6	6	3	1	8	7
54-63	64-69	70-75	76-78	79-79	80-87	88-94

Company/Batch Header Record "5"



Entry Detail Record “6”

- ▶ Identifies Receiver’s account information
- ▶ May have multiple entry detail records per batch
- ▶ Contains:
 - ▶ Transaction Code
 - ▶ RDFI Routing Number
 - ▶ ID or Check Serial Number
 - ▶ Receiver’s Account Number
 - ▶ Amount
 - ▶ Name (could be optional)
 - ▶ Trace Number



Transaction Code

Identifies whether entry is a debit or credit

Identifies what type of account demand, savings, loan

<i>Description</i>	<i>Automated Payment/Deposit</i>	<i>Return or NOCs</i>	<i>Prenotes</i>	<i>Zero Dollar Amount w/remittance data CCD & CTX entries only</i>
Demand Credit	22	21	23	24*
Savings Credit	32	31	33	34*
Demand Debit	27	26	28	29
Savings Debit	37	36	38	39
GL Credit	42	41	43	44
GL Debit	47	46	48	49
Loan Credit	52	51	53	54
Loan Debit	55 (Reversals Only)	56	N/A	N/A

*These transaction codes also represent Acknowledgement Entries for ACK and ATX entries only.

Entry Detail Record “6”

RDFI ABA

- The routing number of the Receiver’s FI
- Check Digit

Individual DFI account number

- Receiver’s account number at their FI

Amount

- Debit or Credit to be posted to Receiver’s account - indicated by transaction code

Entry Detail Record “6”

Individual identification number

- Additional id-optional-PPD
- Mandatory for ARC, BOC, POP, RCK , & XCK – to contain check serial number
- Web Credit=Sender of P2P entry

Individual name

- Receiver’s name (OPTIONAL for ARC, BOC and POP)

Addenda Record Indicator

- Indicates whether an addenda record will follow 0 = none, 1= 1 or more

Trace Number

15 digits

Uniquely identifies each entry within a batch in an ACH file

For Addenda Records, the Trace Number is the same as that of the associated Entry Detail Record

Throughout the entire processing cycle (from ODFI to RDFI), the Trace Number is retained with the entry

Entry Detail Record “6”

FIELD	1	2	3	4	5	6	7	8	9	10	11
DATA ELEMENT NAME	RECORD TYPE CODE	TRANSACTION CODE	RECEIVING DFI IDENTIFICATION	CHECK DIGIT	DFI ACCOUNT NUMBER	AMOUNT	INDIVIDUAL IDENTIFICATION NUMBER	INDIVIDUAL NAME	DISCRETIONARY DATA	ADDENDA RECORD INDICATOR	TRACE NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M	R	M	O	R	O	M	M
<i>Contents</i>	'6'	Numeric	TTTTAAA	Numeric	Alphanumeric	\$\$\$\$\$\$\$#	Alphanumeric	Alphanumeric	Alphanumeric	Numeric	Numeric
<i>Length</i>	1	2	8	1	17	10	15	22	2	1	15
<i>Position</i>	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-84

FIELD	1	2	3	4	5
DATA ELEMENT NAME	RECORD TYPE CODE	TRANSACTION CODE	RECEIVING DFI IDENTIFICATION	CHECK DIGIT	DFI ACCOUNT NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M	R
<i>Contents</i>	'6'	Numeric	TTTTAAA	Numeric	Alphanumeric
<i>Length</i>	1	2	8	1	17
<i>Position</i>	01-01	02-03	04-11	12-12	13-29

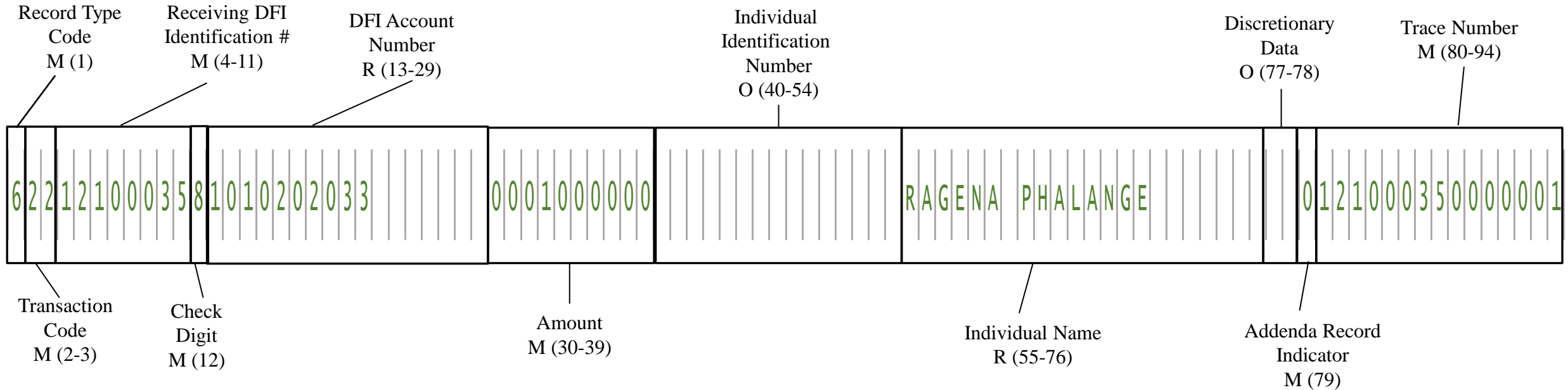
Entry Detail Record “6”

FIELD	1	2	3	4	5	6	7	8	9	10	11
DATA ELEMENT NAME	RECORD TYPE CODE	TRANSACTION CODE	RECEIVING DFI IDENTIFICATION	CHECK DIGIT	DFIACCOUNT NUMBER	AMOUNT	INDIVIDUAL IDENTIFICATION NUMBER	INDIVIDUAL NAME	DISCRETIONARY DATA	ADDENDA RECORD INDICATOR	TRACE NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M	R	M	O	R	O	M	M
<i>Content</i>	0	Numeric	TTTTAAA	Numeric	Alphameric	\$\$\$\$\$\$\$çç	Alphameric	Alphameric	Alphameric	Numeric	Numeric
<i>Length</i>	1	2	8	1	17	10	15	22	2	1	15
<i>Position</i>	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-94

6	7	8	9	10	11
AMOUNT	INDIVIDUAL IDENTIFICATION NUMBER	INDIVIDUAL NAME	DISCRETIONARY DATA	ADDENDA RECORD INDICATOR	TRACE NUMBER
M	O	R	O	M	M
\$\$\$\$\$\$\$çç	Alphameric	Alphameric	Alphameric	Numeric	Numeric
10	15	22	2	1	15
30-39	40-54	55-76	77-78	79-79	80-94

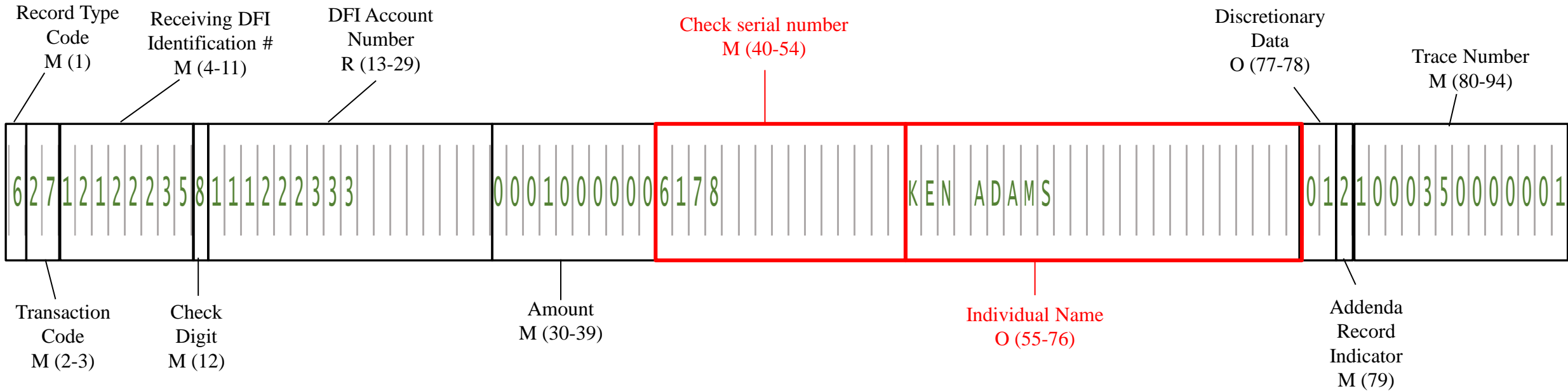
PPD

Entry Detail Record



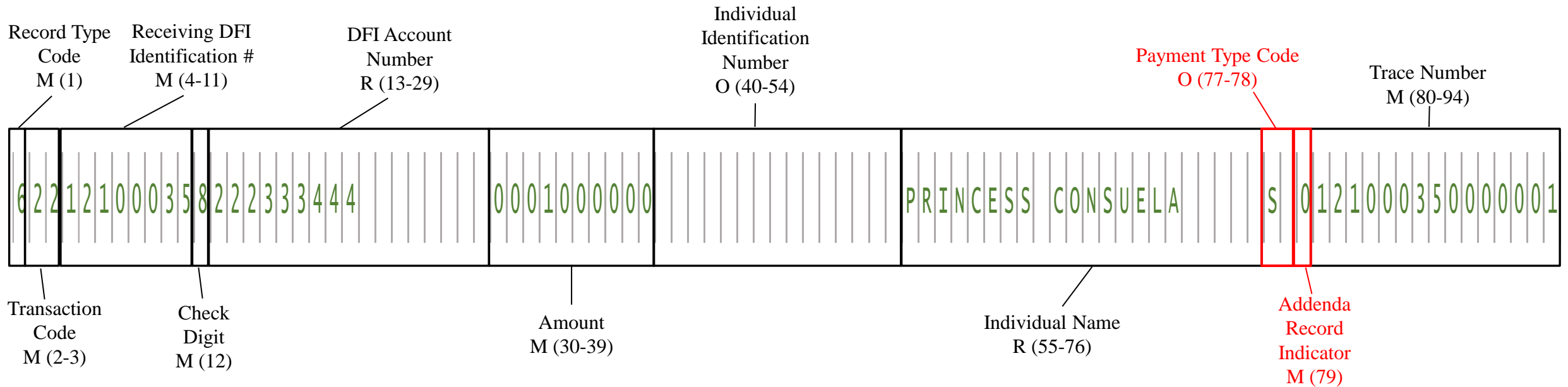
ARC, BOC, RCK, POP, XCK

Entry Detail Record



TEL,WEB

Entry Detail Record



Addenda Record “7”

- ▶ Used by the originator
- ▶ Supplies additional information related to the payment
 - ▶ Any other use is prohibited
- ▶ Inclusion depends on the SEC code
 - ▶ Can be mandatory, optional, or not applicable
 - ▶ Content can vary based on SEC
- ▶ Can be multiple addenda records
 - ▶ 1 or up to 9,999, based on SEC found in Batch Header



Addenda Record “7”

Payment Related Information

- 80 Characters

Addenda Sequence Number

- The sequence number assigned to each addenda record consecutively
- The first addenda record must always be a “1” (0001)

Entry Detail Sequence Number

- This number is the same as the last seven digits of the unique trace number (field 13) of the related entry detail or corporate entry detail record.
- * Delimiter, Data element separator
- \ Terminator, End of segment indicator
- ~ Terminator, End of segment indicator (new WITH Healthcare)

Addenda Record “7”

Addenda Type Code

- Describes specific explanation and format for the addenda info contained in the same record

Addenda Type Codes - Mandatory

- 02 – POS, SHR, MTE
- 05 – ACK, ATX, CCD, CIE, CTX, DNE, ENR, PPD, TRX, WEB
- 10 – 18 – IAT Addenda
- 98 – NOC or Refused NOC
- 99 – Return, Dishonored or Contested

Addenda Record “7”

FIELD	1	2	3	4	5	6	7	8
DATA ELEMENT NAME	RECORD TYPE CODE	ADDENDA TYPE CODE	RETURN REASON CODE	ORIGINAL ENTRY TRACE NUMBER	DATE OF DEATH	ORIGINAL RECEIVING OFFICE IDENTIFICATION	ADDENDA INFORMATION	TRACE NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M	D	R	D	M
<i>Contents</i>	'7'	'99'	Alphameric	Numeric	YYMMDD	TTTTAAA	Alphameric	Numeric
<i>Length</i>	1	2	3	15	6	8	44	15
<i>Position</i>	01-01	02-03	04-06	07-21	22-27	28-35	36-70	80-94

FIELD	1	2	3	4
DATA ELEMENT NAME	RECORD TYPE CODE	ADDENDA TYPE CODE	RETURN REASON CODE	ORIGINAL ENTRY TRACE NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M
<i>Contents</i>	'7'	'99'	Alphameric	Numeric
<i>Length</i>	1	2	3	15
<i>Position</i>	01-01	02-03	04-06	07-21

Addenda Record “7”

FIELD	1	2	3	4	5	6	7	8
DATA ELEMENT NAME	RECORD TYPE CODE	ADDENDA TYPE CODE	RETURN REASON CODE	ORIGINAL ENTRY TRACE NUMBER	DATE OF DEATH	ORIGINAL RECEIVING DFI IDENTIFICATION	ADDENDA INFORMATION	TRACE NUMBER
Field Inclusion Requirement	M	M	M	M	O	R	O	M
Contents	'9'	'99'	Alphameric	Numeric	YYMMDD	TTTTAAAA	Alphameric	Numeric
Length	1	2	3	15	6	8	44	15
Position	01-01	02-03	04-06	07-21	22-27	28-35	36-79	80-94

5	6	7	8
DATE OF DEATH	ORIGINAL RECEIVING DFI IDENTIFICATION	ADDENDA INFORMATION	TRACE NUMBER
O	R	O	M
YYMMDD	TTTTAAAA	Alphameric	Numeric
6	8	44	15
22-27	28-35	36-79	80-94

Addenda Record “7”

OPTIONAL ADDENDA RECORDS

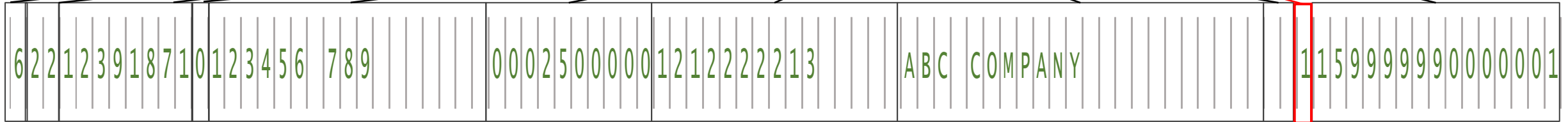
- ACK/ATX (max. 1)
- CCD/PPD (max. 1)
- CIE (max. 1)
- CTX (max. 9,999)
- WEB (max. 1)
- WEB Credit=Free From
- IAT (max 5)

MANDATORY ADDENDA RECORDS

- COR/REFUSED COR (1)
- DNE (1)
- ENR (max. 9,999)
- POS/SHR/MTE (1)
- Returns, Dishonored, Contested (1)
- TRX (max. 9,999)
- IAT (7)

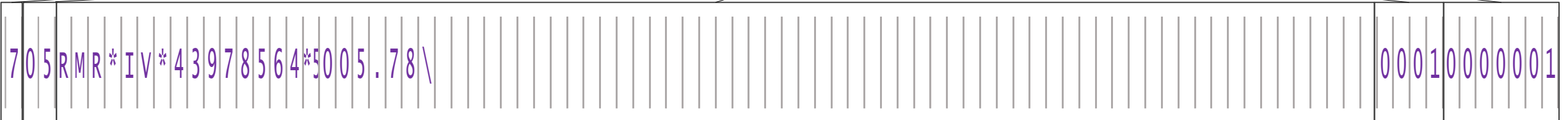
**CCD ENTRY
DETAIL
RECORD**

FIELD	1	2	3	4	5	6	7	8	9	10	11
DATA ELEMENT NAME	Record Type Code	Transaction Code	Receiving DFI Identification	Check Digit	DFI Account Number	Amount	Identification Number	Receiving Company Name	Discretionary Data	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	R	O	M	M
Contents	'6'	Numeric	TTTTAAAA	Numeric	Alphameric	\$\$\$\$\$\$\$¢	Alphameric	Alphameric	Alphameric	Numeric	Numeric
Length	1	2	8	1	17	10	15	22	2	1	15
Position	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-94



**ADDENDA
RECORD**

FIELD	1	2	3	4	5
DATA ELEMENT NAME	Record Type Code	Addenda Type Code	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
Field Inclusion Requirement	M	M	O	M	M
Contents	'7'	'05'	Alphameric	Numeric	Numeric
Length	1	2	80	4	7
Position	01-01	02-03	04-83	84-87	88-94



CTX ENTRY DETAIL RECORD

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
DATA ELEMENT NAME	Record Type Code	Transaction Code	Receiving DFI Identification	Check Digit	DFI Account Number	Amount	Identification Number	Number of Addenda Records	Receiving Company Name /ID number	Reserved	Discretionary Data	Addenda Record Indicator	Trace Number
Field Inclusion Requirement	M	M	M	M	R	M	O	M	R	N/A	O	M	M
Contents	'6'	Numeric	TTTTAAAA	Numeric	Alphameric	\$\$\$\$\$\$\$¢	Alphameric	Numeric	Alphameric	Blank	Alphameric	Numeric	Numeric
Length	1	2	8	1	17	10	15	4	16	2	2	1	15
Position	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-58	59-74	75-76	77-78	79-79	80-94

6 2 7 0 9 1 0 1 2 9 8 7 1 9 1 8 1 7 1 6 1 5 | | | | | 0 0 0 0 2 1 0 0 0 0 9 8 4 5 3 5 | | | | | 0 0 0 9 3 9 5 5 5 4 4 4 3 | | | | | 1 0 9 9 9 1 2 3 4 0 0 0 0 5 5

CTX ADDENDA RECORD

FIELD	1	2	3	4	5
DATA ELEMENT NAME	Record Type Code	Addenda Type Code	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
Field Inclusion Requirement	M	M	O	M	M
Contents	'7'	'05'	Alphameric	Numeric	Numeric
Length	1	2	80	4	7
Position	01-01	02-03	04-83	84-87	88-94

9 { 7 0 5 I S A * 0 0 * 0 0 0 0 0 0 0 0 * 0 0 * 0 0 0 0 0 0 * Z Z * 0 1 2 3 4 5 6 7 8 9 1 2 3 4 5 * Z Z * 5 4 3 2 7 8 9 1 2 5 4 6 3 2 8 * 9 8 0 4 1 5 * 1 1 3 6 * U 0 0 0 0 1 0 0 0 0 0 5 5
 7 0 5 * 0 0 3 0 4 * S E E 8 8 9 7 4 0 * 0 * T \ G S * R A * 0 1 2 3 4 5 6 7 8 9 1 2 3 4 5 * 5 4 3 2 1 9 8 7 6 5 * 0 3 0 4 1 5 * 1 1 3 6 * S E E 8 8 9 7 4 0 * X * 0 0 0 0 2 0 0 0 0 0 5 5
 7 0 5 4 0 \ S T * 8 2 0 * 0 0 0 0 1 0 \ B P R * C * 5 5 2 4 1 . 1 2 * C * A C H * C T X * 0 1 * 0 9 1 6 7 9 8 7 6 5 * D A * 0 0 0 0 6 3 5 5 * 9 0 4 4 0 3 6 2 0 * 0 1 0 0 0 3 0 0 0 0 0 5 5
 7 0 5 9 1 7 1 2 3 4 5 * D A * 5 4 0 0 5 9 6 * 0 3 0 5 3 1 \ T R N * 1 * 0 4 4 0 1 6 2 0 0 0 0 0 5 2 \ R E F * 7 2 * A 3 2 5 0 7 \ D T M * 0 9 7 * 9 8 0 5 3 0 \ N 1 0 0 0 0 4 0 0 0 0 0 5 5
 7 0 5 * A B C C O M P A N Y \ N 1 * P E * X Y Z F O O D S I N C . * 9 3 * A 6 9 U I P I S A V E S \ N 3 * 2 4 0 W A S H I N G T O N A V E . S O 0 0 0 5 0 0 0 0 5 0 0 0 0 0 5 5
 7 0 5 U T H * S U I T E 1 4 2 5 \ N 4 * P O D U N K V I L L E * M N * 5 5 6 0 8 1 2 3 4 \ E N T * 1 \ R M R * I V * 8 7 9 4 5 2 1 6 5 4 7 * * 2 1 1 8 8 . 8 5 * 0 0 0 0 6 0 0 0 0 0 5 5
 7 0 5 2 1 3 5 4 . 1 0 * 0 0 \ R E F * P O * 8 7 9 4 6 5 9 8 \ D T M * 1 2 2 * 9 8 0 4 0 2 \ A D X * 3 * . 1 0 * L 6 \ R E F * 9 8 * A 3 2 5 9 9 \ R E F * T D * B \ 0 0 0 0 7 0 0 0 0 0 5 5
 7 0 5 R * I V * 8 7 9 4 2 1 7 8 6 3 * * 3 4 0 5 2 . 2 7 * 3 4 0 5 2 . 2 7 \ D T M * 1 6 5 * 9 8 0 4 0 3 \ S E * 2 7 * 0 0 0 0 0 0 0 0 1 \ G E * 1 * 8 8 8 8 9 3 4 0 0 0 0 0 8 0 0 0 0 0 5 5
 7 0 5 1 * 8 8 8 8 8 9 3 4 0 \ | | | | | 0 0 0 0 9 0 0 0 0 0 5 5

Point of Sale Entry (POS)

Entry Detail Record

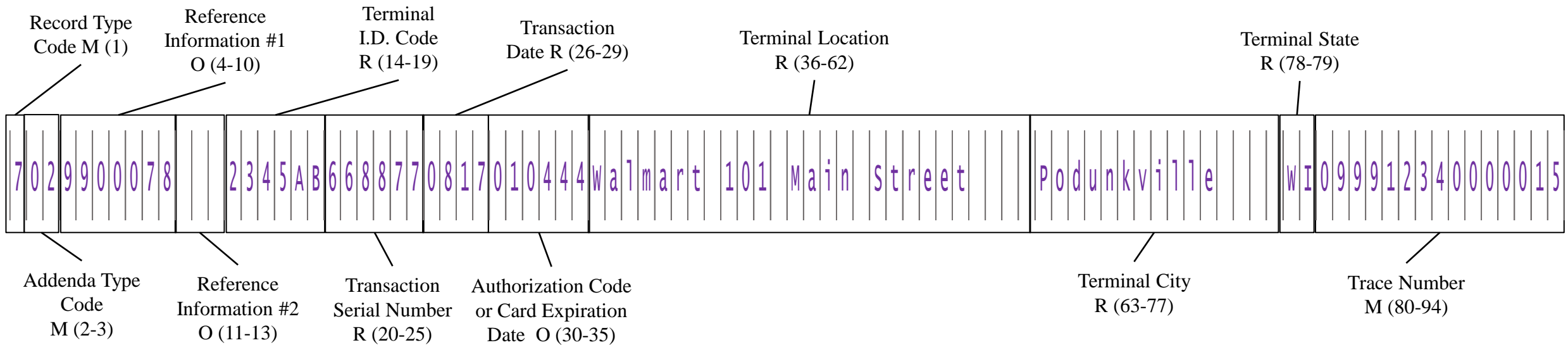
6220910129871918171615 00000950009845378690988 Ken Adams 011099912340000015

Card Transaction
Type Code
M (77-78)



Addenda Record

Addenda Record
Indicator M (79)



Card Transaction Type Codes

01 - Purchase of goods or services

02 - Cash

03 - Return reversal

11 - Purchase reversal

12 - Cash reversal

13 - Return

21 - Adjustment

99 - Miscellaneous transaction





International ACH Transactions - IAT

“Travel Rule” Information

Mandatory IAT Fields as required by OFAC

Originator

- Name and physical address, street, city, country code

Receiver

- Name and physical address, street, city, country code

Originating DFI (Inbound-Foreign DFI)

- FI name, identification number, branch country code

Receiving DFI (Outbound-Foreign DFI)

- FI name, identification number, branch country code

Intermediary bank name, identification number, branch country code

ISO Country and Currency Codes

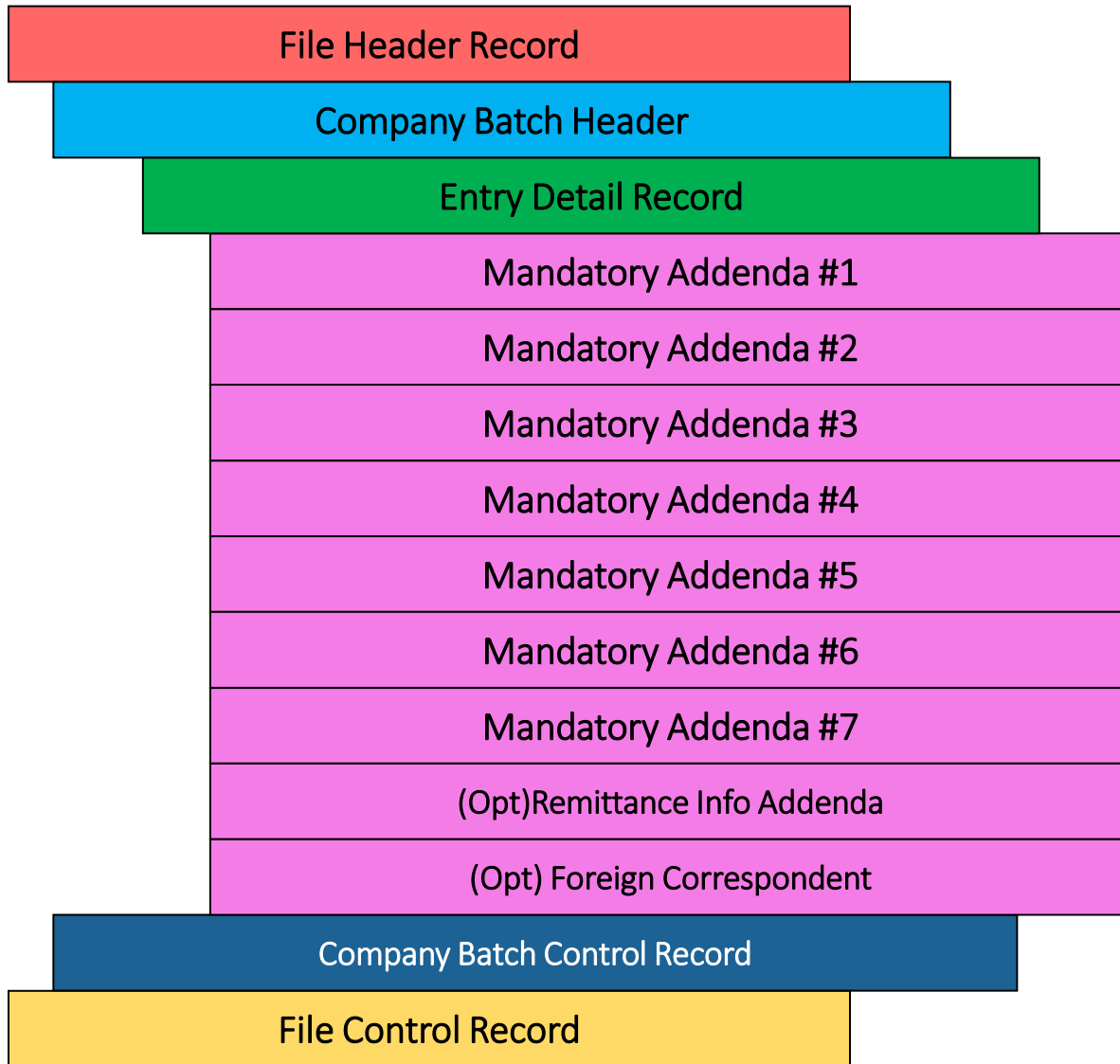
Foreign Exchange Indicator



IAT Formatting Requirements

Detail record contains

- Gateway or Receiving DFI Routing number & Check digit
- Number of Addenda Records
- Amount
- Account number
- Gateway Screening Indicator
- Addenda indicator
- Trace number



- IAT format supports up to 12 addenda records per entry detail record
 - Seven addenda records are mandatory
 - All information related to a particular ACH participant (Originator, ODFI, RDFI, Receiver/Beneficiary)
- Five addenda records may include a
 - combination of Remittance Information
 - and Correspondent Bank Information
 - depending on the specific item
- Remittance Information Addenda
 - Maximum of two optional remittance information addenda - each Remittance Addenda record provides 80 characters of remittance info - specific formats required
- Foreign Correspondent Bank Info Addenda
 - A separate addenda record is required for each Correspondent Bank involved in the transmission or exchange of an IAT entry.
 - This addenda provides the necessary information to identify and to react to unlawful transactions - a maximum of five Correspondent Bank Addenda records

IAT Transaction

7 Mandatory Addenda Records Contain the additional information that OFAC has requested

1 Addenda Tran Code, Fx Amount, Foreign Trace, Receiver
2 Addenda Originator Name and Address
3 Addenda Originator City, State and Country Code
4 Addenda ODFI Name, and Identification, and Country Code
5 Addenda RDFI Name, and Identification, and Country Code
6 Addenda Receiver Identification and Address
7 Addenda Receiver City State and Country Code

IAT Formatting Requirements

2 additional addenda records for remittance data

- 80 characters of remittance data per record
- Enables inclusion of SWIFT 4x35 remittance data
- Any NACHA endorsed banking conventions
- No additional formatting requirements for remittance information

8-10 Addenda Correspondent Information

11-12 Addenda Remittance data

Formatting Requirements

Mandatory identification of Foreign Correspondent Banks

- Fixed-field addenda record required for each foreign correspondent bank
- Maximum of 3 foreign correspondents can be added if the 2 remittance addenda records are used
- If no remittance data provided then up to 5 foreign correspondent banks can be added

**Maximum of 12 addenda records per
detail record**

IAT Company Batch Header Record

Formatting changes with the new IAT standard entry class code, specific to cross-border entries or new fields introduced with IAT are outlined in red.

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	IAT INDICATOR	FOREIGN EXCHANGE INDICATOR	FOREIGN EXCHANGE REFERENCE INDICATOR	FOREIGN EXCHANGE REFERENCE	ISO DESTINATION COUNTRY CODE	ORIGINATOR IDENTIFICATION	STANDARD ENTRY CLASS CODE	COMPANY ENTRY DESCRIPTION	ISO ORIGINATING CURRENCY CODE	ISO DESTINATION CURRENCY CODE	EFFECTIVE ENTRY DATE	SETTLEMENT DATE (JULIAN)	ORIGINATOR STATUS CODE	GO IDENTIFICATION ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
<i>Field Inclusion Requirement</i>	M	M	O	M	R	R	M	M	M	M	M	M	R	Inserted by ACH Operator	M	M	M
<i>Contents</i>	'S'	Numeric	Alphameric	Alphameric	Numeric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	Alphameric	YYMMDD	Numeric	Alphameric	TTTTAAA	Numeric
<i>Length</i>	1	3	16	2	1	15	2	10	3	10	3	3	6	3	1	8	7
<i>Position</i>	01-01	02-04	05-20	21-22	23-23	24-38	39-40	41-50	51-53	54-63	64-66	67-69	70-75	76-78	79-79	80-87	88-94

Field Definition

IAT Indicator Left blank except with NOCs (“IATCOR”)

Foreign Exchange Indicator “FV” “VF” “FF”

Foreign Exchange Reference Indicator Code used to indicate the content of the

Foreign Exchange Reference Field – ‘1’ – FX, ‘2’ – FX Reference Number, ‘3’ – Space Filled

Foreign Exchange Reference Either the foreign exchange rate or another reference to the foreign exchange transaction

ISO Destination Country Code 2-character code (approved by ISO) to ID the country receiving the entry.

Originator Identification Alphameric ID code used to uniquely ID an Originator

ISO Originating Currency Code 3-character code to ID the currency denomination in which the entry was first originated

ISO Destination Currency Code 3-character code to ID the currency denomination in which the entry is to be received

Originator Status Code ‘0’ – Advice file prepared by the ACH Operator; ‘1’ – Originator is a financial institution that agrees to be bound by the Rules; ‘2’ – Federal Government entity or agency not bound to the Rules

GO Identification Originating DFI Identification

Inbound – RTN of the US Gateway Operator; **Outbound** – RTN to ID the US ODFI initiating the entry

Transaction Type Codes Reason for Payment

OFAC requested that the reason for payment be included in IAT payment transactions

Reason for Payment is a 3 digit code, included in the Transaction Type Code Field, (1st Addenda) with pre-defined codes

- ANN – annuity
- BUS – Business/Commercial
- DEP – Deposit
- PEN – Pension
- REM-Remittance

Transaction Type Code Values are listed in Appendix Two of the Rules

Transaction Type Codes Secondary SEC Code

Expanded the use of the Transaction Type Code field for Inbound IAT transactions to carry a “secondary SEC code” for WEB, TEL, ARC, POP, BOC, RCK, POS, SHR, MTE

If ARC, BOC or RCK codes are listed, a Nacha banking convention has been developed to carry the check serial number

For POP, the check serial number and Terminal City and Terminal State in the Payment Related Information of the Remittance Addenda Record

Secondary SEC Code - Example

A U.S. bank may use BOC to clear U.S. dollar checks it receives in a foreign country. The ACH transaction would be an IAT with BOC included in the Transaction Type Code field

Check serial number would be provided in a Nacha-endorsed banking convention contained in the Payment Related Information field of the Remittance Information addenda record

Secondary SEC Code - Example

Banks offering decoupled debit cards that are functional in other countries would use the IAT to clear those transactions and include POS in the Transaction Type Code field

Terminal location, city, state or country and terminal identification code would be provided in a Nacha-endorsed banking convention contained in the Payment Related Information field of the Remittance Information addenda record

IAT

Entry Detail Record

6220210000550009	000331082058699		103110035000001
710	MIS00000000003310820	vender	0000001
711	Company	PO BOX 12345	0000001
712	CHICAGO*IL\	USA*54321\	0000001
713	Originating Bank	01031100351	US 0000001
714	Receiving Bank 1	01021000055	AU 0000001
715	0010000020	111 XYZ Avenue	0000001
716	SYDNEY*\	AUSTRALIA*45321\	0000001
717	Option 1		00010000001
718	Corresponding Bank	01021000019	US 00020000001

A maximum of two optional remittance

3 Foreign Correspondent Bank Information or max of 5 if remittance information is not used

Company Batch Control “8”

What is the Company Batch Control Record?

Summarizes the records/ACH entries within the batch

One Batch Control Record per batch

- can be multiple batches in each ACH file

Entry/addenda counts

- Both entry detail and addenda records (records 6&7) are counted to receive a total within that specific batch (batch header and batch control records are NOT included in this total)

Entry hash totals

- Hash is the arithmetic sum of the 8-digit routing number of each RDFI within each entry detail record - if sum is more than 10 characters in length, the digits on the left are removed

Total dollar controls

- Sum of debit and credit totals of all entry detail (6) records in batch



Service Class Code, Company Identification, ODFI Routing number, and batch number MUST all match info in Batch Header record or the batch will reject.

Company/Batch Control Record “8”

FIELD	1	2	3	4	5	6	7	8	9	10	11
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	ENTRY/ADDENDA COUNT	ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT	TOTAL CREDIT ENTRY DOLLAR AMOUNT	COMPANY IDENTIFICATION	MESSAGE AUTHENTICATION CODE	RESERVED	ORIGINATING DFID IDENTIFICATION	BATCH NUMBER
<i>Field Inclusion Requirement</i>	M	M	M	M	M	M	R	D	N/A	M	M
<i>Contents</i>	'8'	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$pc	\$\$\$\$\$\$\$\$\$pc	Alphanumeric	Alphanumeric	Blank	TTTTAAA	Numeric
<i>Length</i>	1	3	6	10	12	12	10	19	6	8	7
<i>Position</i>	01-01	02-04	05-10	11-20	21-32	33-44	45-54	55-73	74-79	80-87	88-94

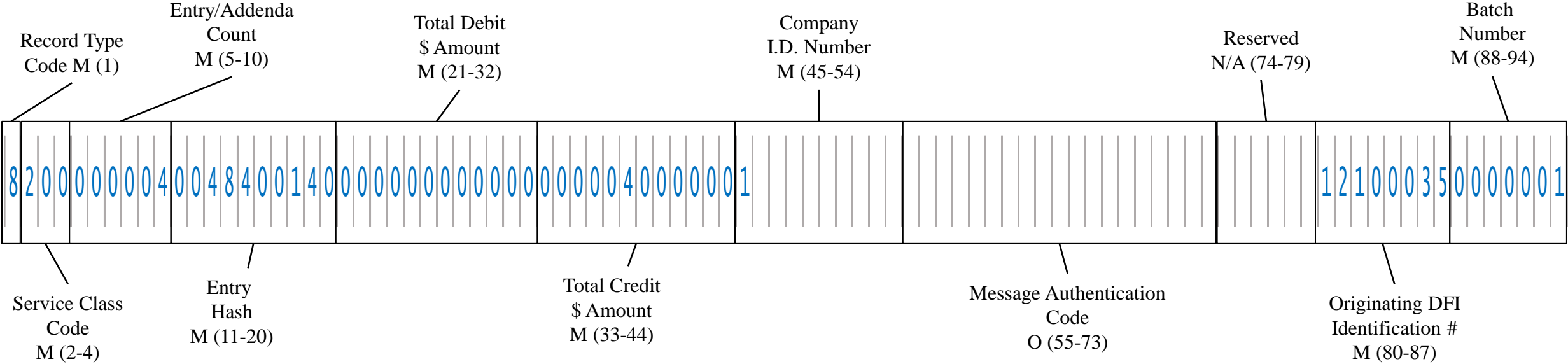
FIELD	1	2	3	4	5
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	ENTRY/ADDENDA COUNT	ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT
<i>Field Inclusion Requirement</i>	M	M	M	M	M
<i>Contents</i>	'8'	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$pc
<i>Length</i>	1	3	6	10	12
<i>Position</i>	01-01	02-04	05-10	11-20	21-32

Company/Batch Control Record “8”

FIELD	1	2	3	4	5	6	7	8	9	10	11
DATA ELEMENT NAME	RECORD TYPE CODE	SERVICE CLASS CODE	ENTRY/ADDENDA COUNT	ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT	TOTAL CREDIT ENTRY DOLLAR AMOUNT	COMPANY IDENTIFICATION	MESSAGE AUTHENTICATION CODE	RESERVED	ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
Field Inclusion Requirement	M	M	M	M	M	M	R	O	N/A	M	M
Contents	'8'	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	Alphanumeric	Alphanumeric	Blank	TTTTAAA	Numeric
Length	1	3	8	10	12	12	10	19	6	8	7
Position	01-01	02-04	05-10	11-20	21-32	33-44	45-54	55-73	74-79	80-87	88-94

6	7	8	9	10	11
TOTAL CREDIT ENTRY DOLLAR AMOUNT	COMPANY IDENTIFICATION	MESSAGE AUTHENTICATION CODE	RESERVED	ORIGINATING DFI IDENTIFICATION	BATCH NUMBER
M	R	O	N/A	M	M
\$\$\$\$\$\$\$\$\$cc	Alphanumeric	Alphanumeric	Blank	TTTTAAA	Numeric
12	10	19	6	8	7
33-44	45-54	55-73	74-79	80-87	88-94

Company/Batch Control Record "8"



File Control Record “9”



One per File

Batch count

- Total number of batches within file

Block count

- The sum of all physical blocks within the file

Entry addenda counts

- The sum of all entry/addenda count totals from all batch control records within the file

Entry hash totals

- Hash is the arithmetic sum of the entry hash totals from each batch control record within the file

Total dollar controls

- The sum of all debit and credit totals of all batch control records within the file

What is a Physical Block?

A “block” consists of 10 records. Each record is 94 characters, which equals 940 characters (94 character records x 10 records)

If the last block has less than 940 characters of information, the remainder of the block must be filled with 9's

The Blocking Factor – Quiz

An ACH File has two batches

Each batch contains two transactions (with no addenda)

How many rows of 9s are at the end of the file?



The Blocking Factor – Quiz

- ▶ Answer: None
- ▶ Since a block (10 records) was completed and there were no additional records, no rows of 9s are needed

```
101 064000101 064222220702281421A094101FEDERAL RESERVE BANK TEST BANK
5200ABC TEST CO PHONE: 800-999-9999 1999999999PPDPAYROLL 070430 10642222000029
62206422222212345 0000200000ID 001 DOE, JOHN 006422220002241
62206422222267890 0000200000ID 002 DOE, MARY 006422220002242
8200000002001284444000000000000000004000001999999999 064222220000029
5200ABC TEST CO PHONE: 800-999-9999 1999999999PPDBILLING 070430 106422220000030
62706422222254321 0000100000ID 003 SMITH, JOHN 006422220002243
62706422222298765 0000100000ID 004 SMITH, MARY 006422220002244
8200000002001284444000000200000000000000001999999999 064222220000030
900000200000100000004002568888800000020000000000400000
```


File Control Record "9"

FIELD	1	2	3	4	5	6	7	8
DATA ELEMENT NAME	RECORD TYPE CODE	BATCH COUNT	BLOCK COUNT	ENTRY/ADDENDA COUNT	ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT IN FILE	TOTAL CREDIT ENTRY DOLLAR AMOUNT IN FILE	RESERVED
<i>Field Inclusion Requirement</i>	M	M	M	M	M	M	M	N/A
<i>Contents</i>	'9'	Numeric	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$pp	\$\$\$\$\$\$\$\$\$pp	Blank
<i>Length</i>	1	6	6	8	10	12	12	20
<i>Position</i>	01-01	02-07	08-13	14-21	22-31	32-43	44-55	56-94

FIELD	1	2	3	4
DATA ELEMENT NAME	RECORD TYPE CODE	BATCH COUNT	BLOCK COUNT	ENTRY/ADDENDA COUNT
<i>Field Inclusion Requirement</i>	M	M	M	M
<i>Contents</i>	'9'	Numeric	Numeric	Numeric
<i>Length</i>	1	6	6	8
<i>Position</i>	01-01	02-07	08-13	14-21

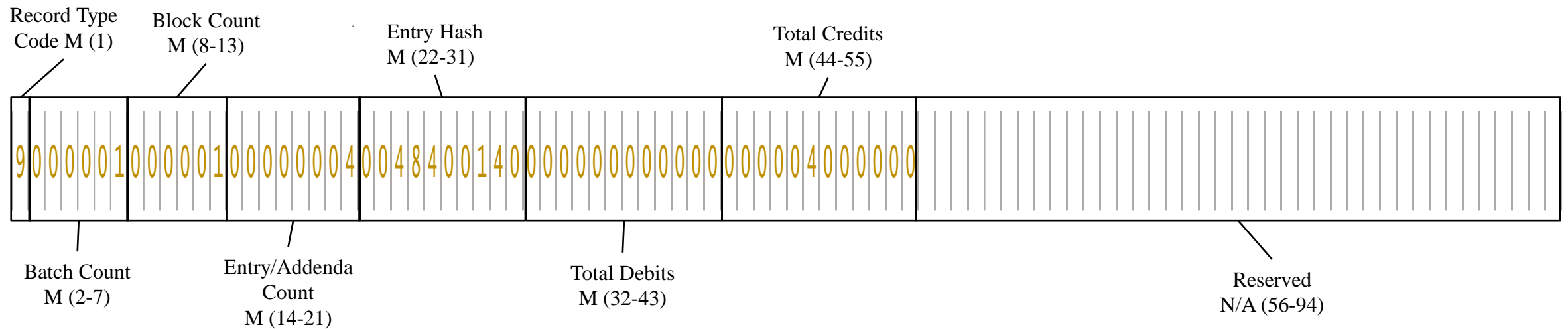
File Control Record “9”

FIELD	1	2	3	4	5	6	7	8
DATA ELEMENT NAME	RECORD TYPE CODE	BATCH COUNT	BLOCK COUNT	ENTRY/ADDENDA COUNT	ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT IN FILE	TOTAL CREDIT ENTRY DOLLAR AMOUNT IN FILE	RESERVED
Field Inclusion Requirement	M	M	M	M	M	M	M	N/A
Contents	'9'	Numeric	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$\$\$	\$\$\$\$\$\$\$\$\$\$\$	Blank
Length	1	6	6	6	10	12	12	39
Position	01-01	02-07	08-13	14-21	22-31	32-43	44-55	56-94

5	6	7	8
ENTRY HASH	TOTAL DEBIT ENTRY DOLLAR AMOUNT IN FILE	TOTAL CREDIT ENTRY DOLLAR AMOUNT IN FILE	RESERVED
M	M	M	N/A
Numeric	\$\$\$\$\$\$\$\$\$\$\$	\$\$\$\$\$\$\$\$\$\$\$	Blank
10	12	12	39
22-31	32-43	44-55	56-94

File Control Record "9"

File Control



**ALL ENTRIES
FILE HEADER
RECORD**

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
<i>DATA ELEMENT NAME</i>	Record Type Code	Priority Code	Immediate Destination	Immediate Origin	File Creation Date	File Creation Time	File ID Modifier	Record Size	Blocking Factor	Format Code	Immediate Destination Name	Immediate Origin Name	Reference Code
<i>Field Inclusion Requirement</i>	M	R	M	M	M	O	M	M	M	M	O	O	O
<i>Contents</i>	'1'	Numeric	bTTTTAAAC	bTTTTAAAC	YYMMDD	HHMM	A-Z 0-9	'94'	'10'	'1'	Alphameric	Alphameric	Alphameric
<i>Length</i>	1	2	10	10	6	4	1	3	2	1	23	23	8
<i>Position</i>	01-01	02-03	04-13	14-23	24-29	30-33	34-34	35-37	38-39	40-40	41-63	64-86	87-94

101 051000033 999999992009120111A094101 FEDERAL RESERVE BANK MY BANK

**ALL ENTRIES
FILE CONTROL
RECORD**

FIELD	1	2	3	4	5	6	7	8
<i>DATA ELEMENT NAME</i>	Record Type Code	Batch Count	Block Count	Entry/ Addenda Count	Entry Hash	Total Debit Entry Dollar Amount in File	Total Credit Entry Dollar Amount in File	Reserved
<i>Field Inclusion Requirement</i>	M	M	M	M	M	M	M	N/A
<i>Contents</i>	'9'	Numeric	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$c¢	\$\$\$\$\$\$\$\$c¢	Blank
<i>Length</i>	1	6	6	8	10	12	12	39
<i>Position</i>	01-01	02-07	08-13	14-21	22-31	32-43	44-55	56-94

900000100000100000004004840014000000000000000004000000

ACH File Structure

File Header (Record #1)

Company Batch Header (Record #5)

Entry Detail (Record #6)

Addenda (Record #7)

Entry Detail (Record #6)

Company Batch Control (Record #8)

File Control (Record #9)

Returns

When entry detail is being returned, addenda records associated with the entry detail or corporate entry detail records are not included

Appendix Four – Return Entries

Return Entry

- Must contain original data from:
 - Company/Batch Header
 - Entry Detail
- Addenda Records from Original Entry
 - Not returned with Return Entry
 - Exception for IAT – 7 mandatory addenda records must accompany the return
- Addenda Record of the Return Entry
 - Reason for Return, Dishonor, Contested Dishonor

Appendix Four – Return Entries

Return Entry

- Considered “new” Entry
 - New Batch Number
 - New Trace Number
 - New Transaction Code
 - Receiving DFI Identification
- Field Contents for the Return Entry must match original data except for noted changes in Appendix Four

Appendix Four – Return Entries

Return Entries

- Transaction Code must be
 - 21 or 26 = Demand Accounts
 - 31 or 36 = Savings Accounts
 - 41 or 46 = General Ledger Accounts
 - 51 or 56 = Loan Accounts
- Addenda Type Code = 99
- Addenda Record for Dishonored Return Entry include
 - Dishonored Return Reason Code
 - Return Trace Number
 - Return Settlement Date
 - Return Reason Code

Appendix Four – Return Entries

Contested Dishonored Returns

- RDFI warranty that Entry was returned in accordance with the Rules
- Addenda Record for Contested Dishonored Return includes
 - Date Original Entry Returned
 - Original Settlement Date
 - Return Trace Number
 - Return Settlement Date
 - Return Reason Code
 - Dishonored Return Trace Number
 - Dishonored Return Settlement Date
 - Dishonored Return Reason Code

Appendix Four – Return Entries

Return Reason Codes for use by Original RDFI

- R01 – Insufficient Funds
- R02 – Account Closed
- R03 – No Account/Unable to Locate Account
- R04 – Invalid Account Number Structure
- R05 – Unauthorized Debit to Consumer Account Using Corporate SEC Code
- R06 – Returned per ODFI's Request
- R07 – Authorization Revoked by Customer
- R08 – Payment Stopped
- R09 – Uncollected Funds
- R10 – Customer Advises Originator is Not Known to Receiver and/or Originator is Not Authorized by Receiver to Debit Receiver's Account
- R11 – Customer Advises Entry Not in Accordance with the Terms of the Authorization
- R12 – Account Sold to Another DFI

Appendix Four – Return Entries

Return Reason Codes for use by Original RDFI

- R14 – Representative Payee Deceased or Unable to Continue in that Capacity
- R15 – Beneficiary or Account Holder (Other than a Representative Payee) Deceased
- R16 – Account Frozen/Returned per OFAC Request
- R17 – File Record Edit Criteria/Entry with Invalid Account Number Initiated Under Questionable Circumstances/Return of Improperly-Initiated Reversal
- R20 – Non-Transaction Account
- R21 – Invalid Company Identification
- R22 – Invalid Individual ID Number
- R23 – Credit Entry Refused by Receiver
- R24 – Duplicate Entry
- R29 – Corporate Customer Advises Not Authorized

Appendix Four – Return Entries

Return Reason Codes for use by Original RDFI

- R31 – Permissible Return Entry (CCD/CTX Only)
- R33 – Return of XCK Entry
- R37 – Source Document Presented for Payment
- R38 – Stop Payment on Source Document
- R39 – Improper Source Document/Source Document Presented for Payment
- R50 – State Law Affecting RCK Acceptance
- R51 – Item related to RCK Entry is Ineligible or RCK Entry is Improper
- R52 – Stop Payment on Item Related to RCK Entry
- R53 – Item and RCK Entry Presented for Payment

Appendix Four – Return Entries

Return Reason Codes for use by Federal Government Only – ENR entries

- R40 – Return of ENR Entry by Federal Government Agency
- R41 – Invalid Transaction Code
- R42 – Routing Number/Check Digit Error
- R43 – Invalid DFI Account Number
- R44 – Invalid Individual ID Number
- R45 – Invalid Individual Name/Company Name
- R46 – Invalid Representative Payee Indicator
- R47 – Duplicate Enrollment

Appendix Four – Return Entries

Dishonored Return Reason Codes for use by ODFI

- R61 – Misrouted Return
- R62 – Return of Erroneous or Reversing Debit
- R67 – Duplicate Return
- R68 – Untimely Return
- R69 – Field Errors
 - 01- Incorrect DFI Account Number
 - 02 – Incorrect Original Entry Trace Number
 - 03 – Incorrect Dollar Amount
 - 04 – Incorrect Individual Identification Number
 - 05 – Incorrect Transaction Code
 - 06 – Incorrect Company Identification Number
 - 07 – Invalid Effective Entry Date
- R70 – Permissible Return Entry Not Accepted/Return Not Requested by ODFI

Appendix Four – Return Entries

Contested Dishonored Return Reason Codes for use by RDFI

- R71 – Misrouted Dishonored Return
- R72 – Untimely Dishonored Return
- R73 – Timely Original Return
- R74 – Corrected Return
- R75 – Return Not a Duplicate
- R76 – No Errors Found
- R77 – Non-Acceptance of R62 Dishonored Return

Appendix Four – Return Entries

Return Reason Codes for use by Gateway Operators – IAT entries

- R80 – IAT Entry Coding Error
- R81 – Non-Participant in IAT Program
- R82 – Invalid Foreign Receiving DFI Identification
- R83 – Foreign Receiving DFI Unable to Settle
- R84 – Entry Not Processed by Gateway
- R85 – Incorrectly Coded Outbound International Payment

Returns

Entry Detail Record

6210999123451918171615 000009500198453Pay R A G E N A P H A L A N G E 109101298000088

Return Reason Code
M (4-6)

Addenda Record

Addenda Information
O (36-79)

799R0709991234000015 09991234A u t h o r i z a t i o n R e v o k e d 09101298000088

Notification of Change Entry (COR)

Transaction Code M (2-3)

Entry Detail Record

6210999123451918171615 000009500198453Pay RAGENA PHALANGE 1091012980000088

Change Code M (4-6)

Addenda Record

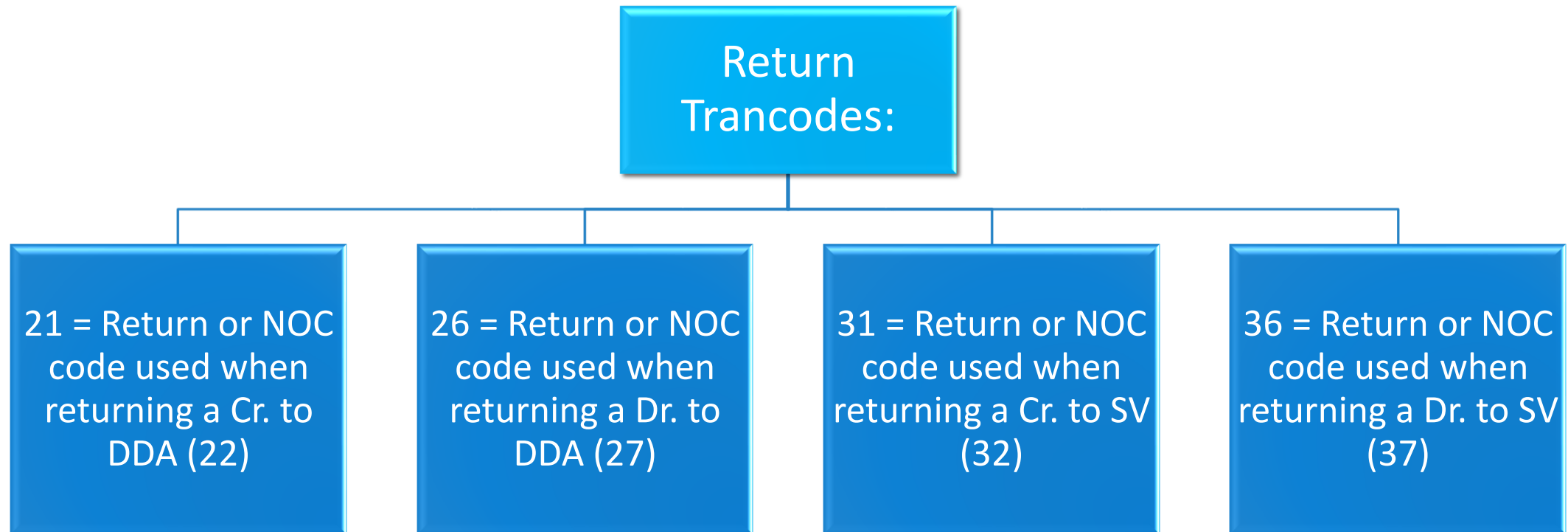
Corrected Data M (36-64)

798C0109991234000015 091012981918171614 091012980000088

Original Entry Trace Number M (7-21)

Original RDFI Identification R (28-35)

Transaction Codes



Other Return Issues

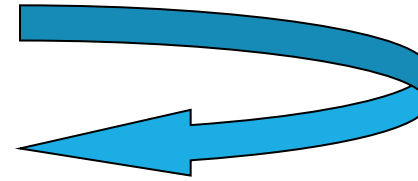
Batch Header - ODFI changes to original RDFI

Operator initiated returns

Depending on who does the return, Immediate origin field may differ

- You (F.I. – your R/T#)
- Third party (their R/T # in File Header record, the immediate origin field)

Dishonored Returns



Includes:

- Original trace number and return trace number
- Dishonored return reason code and original return reason code
- “99” in the addenda type code field
- The return entry settlement date

(As always, the ODFI and RDFI are switched each time an entry bounces back [this would be step 3])

Dishonored Return Codes

R61 – Misrouted

R62 – Return of Erroneous or Reversing Debit

R67 – Duplicate Entry

R68 – Untimely Entry

R69 – Multiple Errors

- Combined R62-R66, added a mandatory field
- ODFI is required to indicate the incorrect field(s), if multiple indicators are used, separate by asterisks
 - 01 Incorrect DFI Account Number
 - 02 Incorrect Original Entry Trace Number
 - 03 Incorrect Dollar Amount
 - 04 Incorrect Individual Identification Number/Individual Identification
 - 05 Incorrect Transaction code
 - 06 Incorrect Company Identification Number
 - “07 Invalid Effective Entry Date”
- Example of multiple indicators - 01*03*06

R70 – Permissible Return Not Accepted



Contested or Corrected Dishonored Returns

Includes:

- Original, return, and dishonored return trace numbers
- Return, dishonored return and contested/corrected return reason codes
- Return and dishonored return settlement dates
- Date the original entry was returned
- “99” addenda type code

Contested/ Corrected Dishonored Returns

R71 - Misrouted dishonored return

R72 - Untimely dishonored return

R73 - Timely original returns

R74 - Corrected return

R75 – Original Return Not a Duplicate

R76 – No errors found

R77 – Non-Acceptance of R62 Dishonored Return



Reversal

Company Batch Header #5

- Service Class Code
 - 220 ACH Credits Only
 - 225 ACH Debits Only
 - If 220 or 225 need to change for reversal, as the type of entry would be opposite of the original
- Effective Entry Date
 - The date the originator would like settlement (needs to be changed for reversals)
- Reversal files and entries
 - “REVERSAL” in the field

Reversal



Company Batch Control #8

- Total dollar controls
 - Sum of debit and credit totals of all entry detail records in batch (for reversals may have to switch around)

Reversal

Entry Detail Record #6

- Transaction Code
 - Identifies whether entry is a debit or credit
 - Identifies what type of account demand, savings, loan

Addenda Record #7

- Does not have to travel with Reversal

File Control Record #9

- Total dollar controls
 - The sum of all debit and credit totals of all batch control records within the file (for reversal: need to change Debit/Credit totals around)

Errors That Will Cause A File To Reject

File cannot be read:

- Data read failures
- Improper block size
- Presence of invalid header labels
- Hardware/software errors

File contains an undefined record type

Invalid sending point or Operator R/T#

The sequence is not correct

Mandatory fields in the File Header are not valid

- File ID modifier not uppercase A-Z or 0-9
- Record size not 094
- Blocking factor not 10
- Format code not 1



Errors That Will Cause A File To Reject

The Immediate Origin, File Creation Date, File Creation Time, and File ID Modifier are equal to that of a previously accepted file

The file is “Out of Balance” meaning:

- Summation of the counts, hash totals and total \$’s on the Batch Control Record(s) does not agree with the File Control
- The number of Blocks or Batches does not agree with the File Control counts



Errors That Will Cause A Batch To Reject

Invalid characters

ODFI identification is not a valid ODFI

Service Class Code is invalid

Trace numbers are not in ascending order

Transaction codes are invalid

The Amount is non-numeric

- (unless a COR, DNE, ENR)

The Batch is “out of balance”

- (hash totals, counts, dollars)

Errors That Will Cause A Batch To Reject

Company Name is all spaces or zeros

Company Entry Description is all spaces or zeros

Company Identification is all spaces or zeros

OSC is not = 2 for DNE if trancode is 23 or 33

SEC code is invalid

Service Class Code in Batch Header is different that in
Batch Control

Return and non-return entries are in the same batch

Errors That Will Cause A Batch To Reject

First 8 positions of the Trace # are not the same as in the Origin # in the Batch Header

Trancode is not valid for the Service Class Code

Trancode is not valid for the SEC code (live dollars with prenotes, etc. – updated for newer transcodes recently)

Returns, dishonored returns, and/or contested dishonored returns are in the same batch

The batch number in the Batch Header and/or Batch control are non-numeric

The batch number in the Batch Header is not the same as in the Batch Control

Errors That Will Cause An Entry To Be Rejected

R26 - Mandatory field error (mostly tied to return codes or improperly completed fields, also check serial # or terminal city/State zeros or spaces)

R27 - Trace number error

- Original entry trace not present in addenda of a return
- Trace # on an addenda does not match trace on preceding detail record

R28 - Routing number check digit error

R30 - RDFI not participant in a Check Truncation program

R32 - The RDFI is not able to settle the entry

R34 - Limited participation DFI (regulator based)

R35 - Return of improper debit entry (CIE)

R36 – Return of improper credit entry (ARC,BOC, POP, WEB, RCK)

Balanced Files vs Unbalanced Files

Balanced Files

- Contain both debit and credit items
- Can only send one day prior to settlement

Unbalanced Files

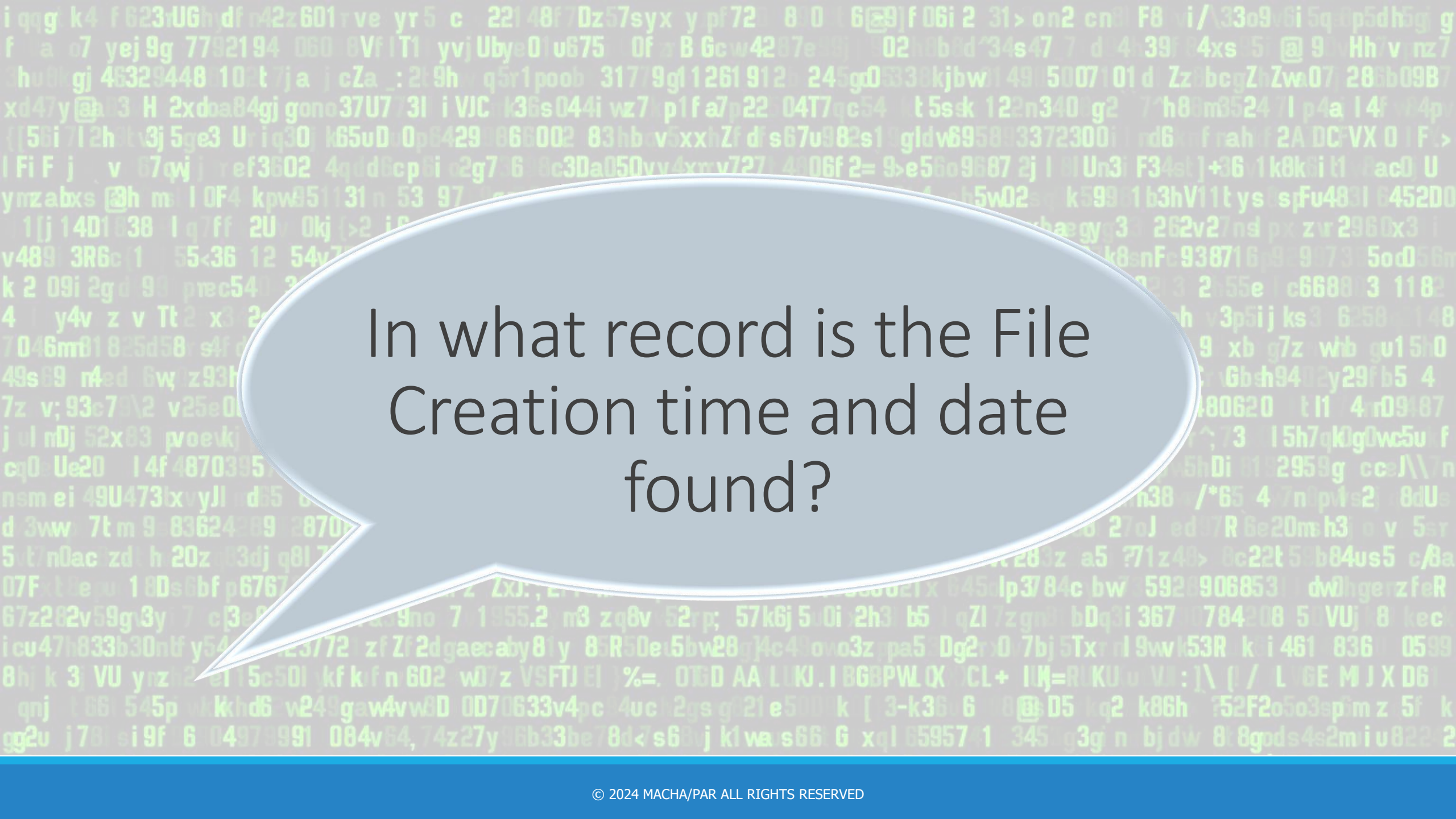
- Contain only debits OR credits
 - Payroll file – only CREDITS – can send 2 days prior
 - Payments file – only DEBITS – can send 1 day prior
- Internally post debit (payroll) or credit (payments)



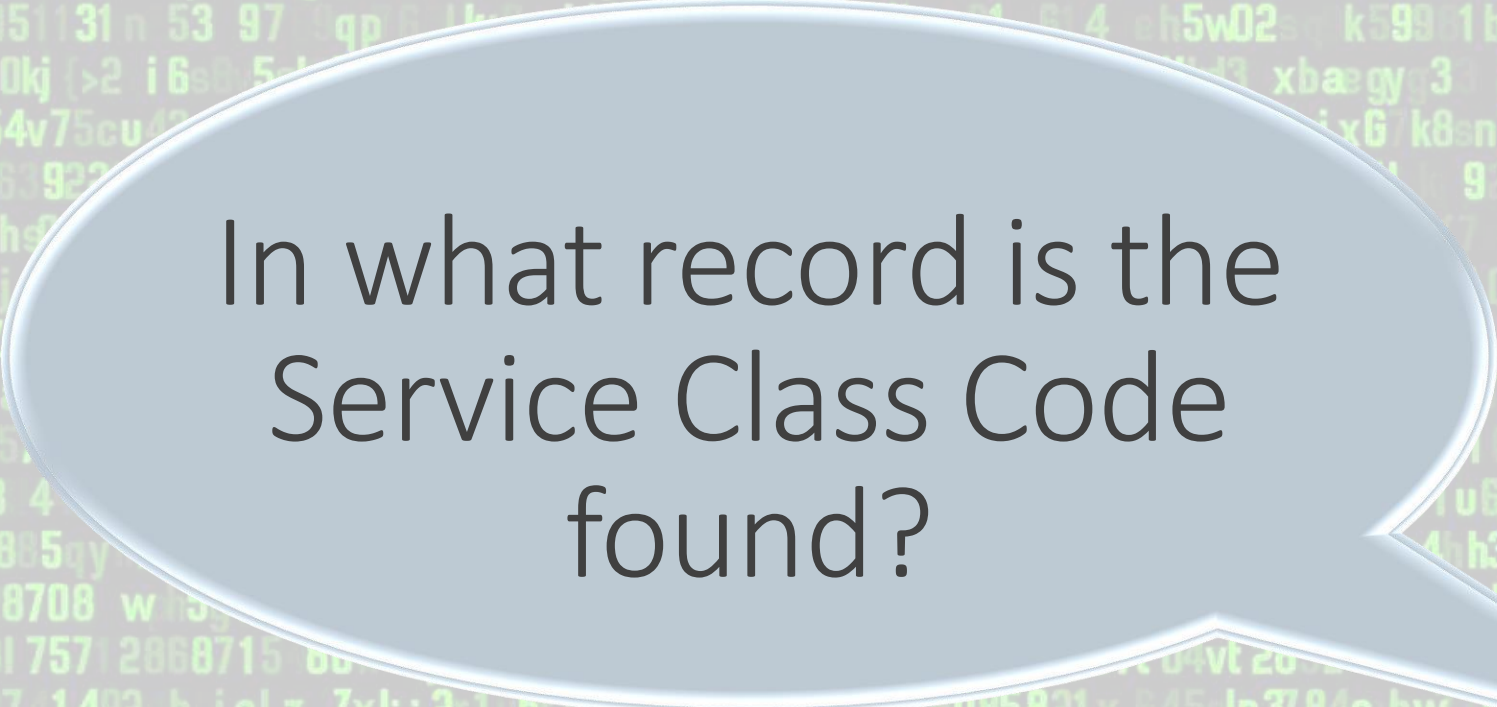
ACH File Format

Now you should be able to look at an ACH file and be able to understand where all the information is found to process any given ACH entry effectively!

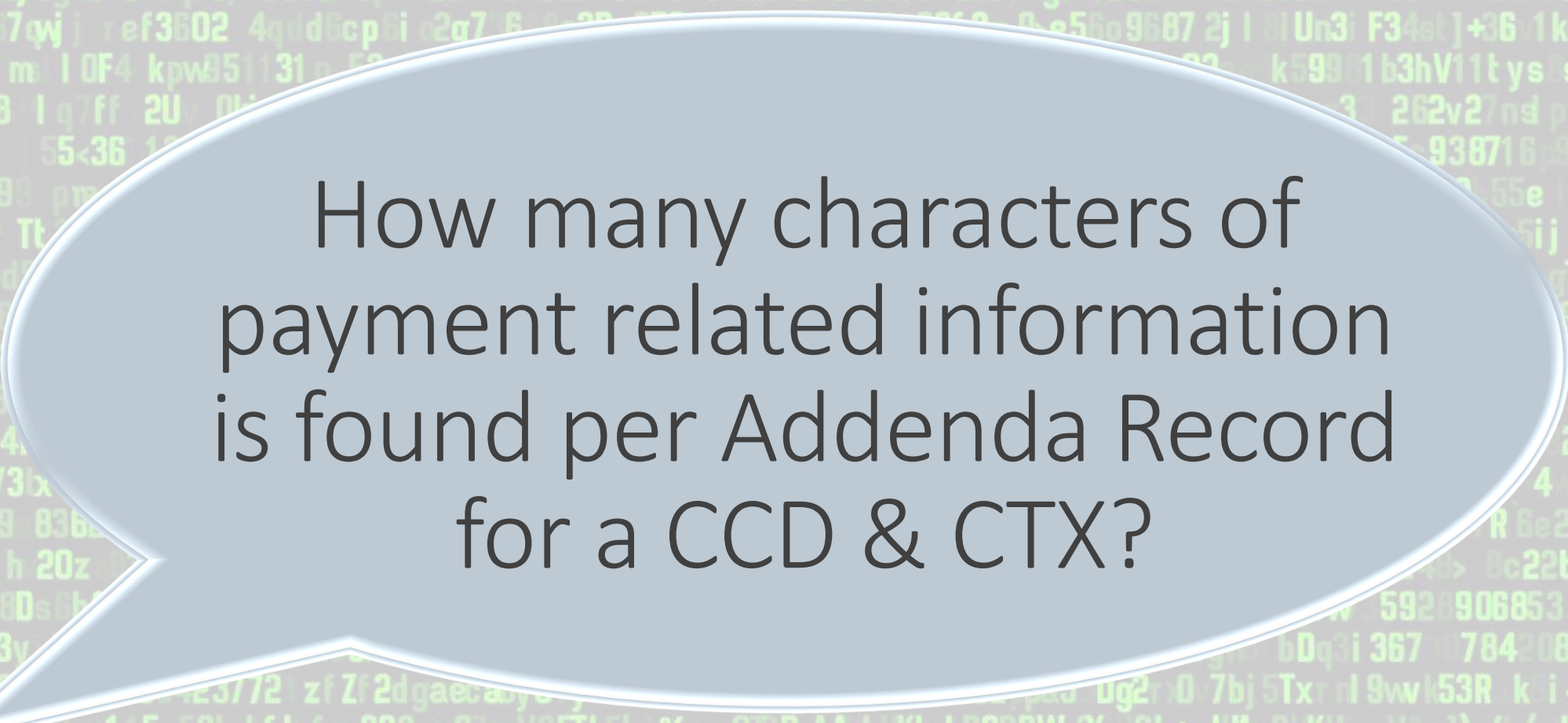




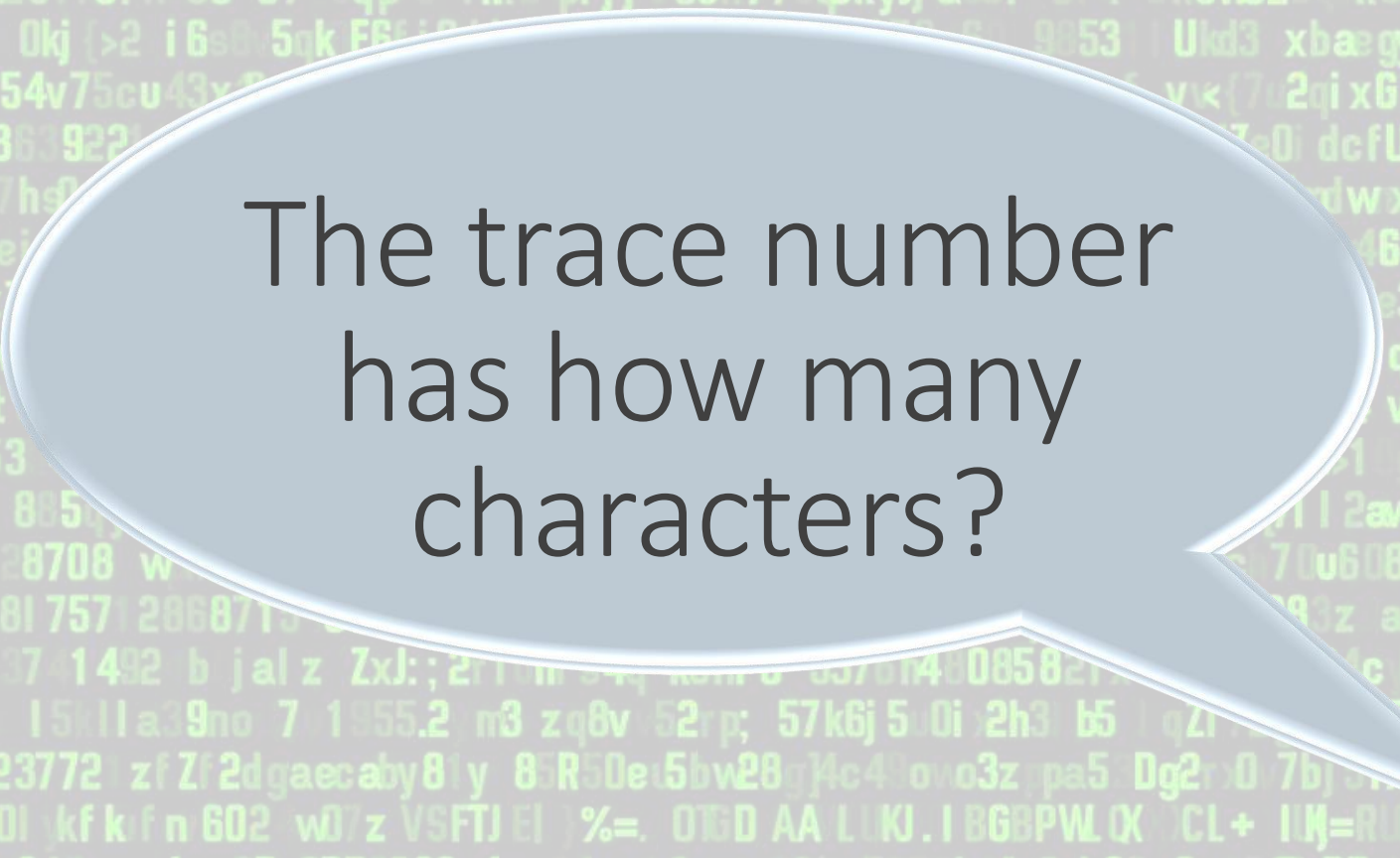
In what record is the File
Creation time and date
found?



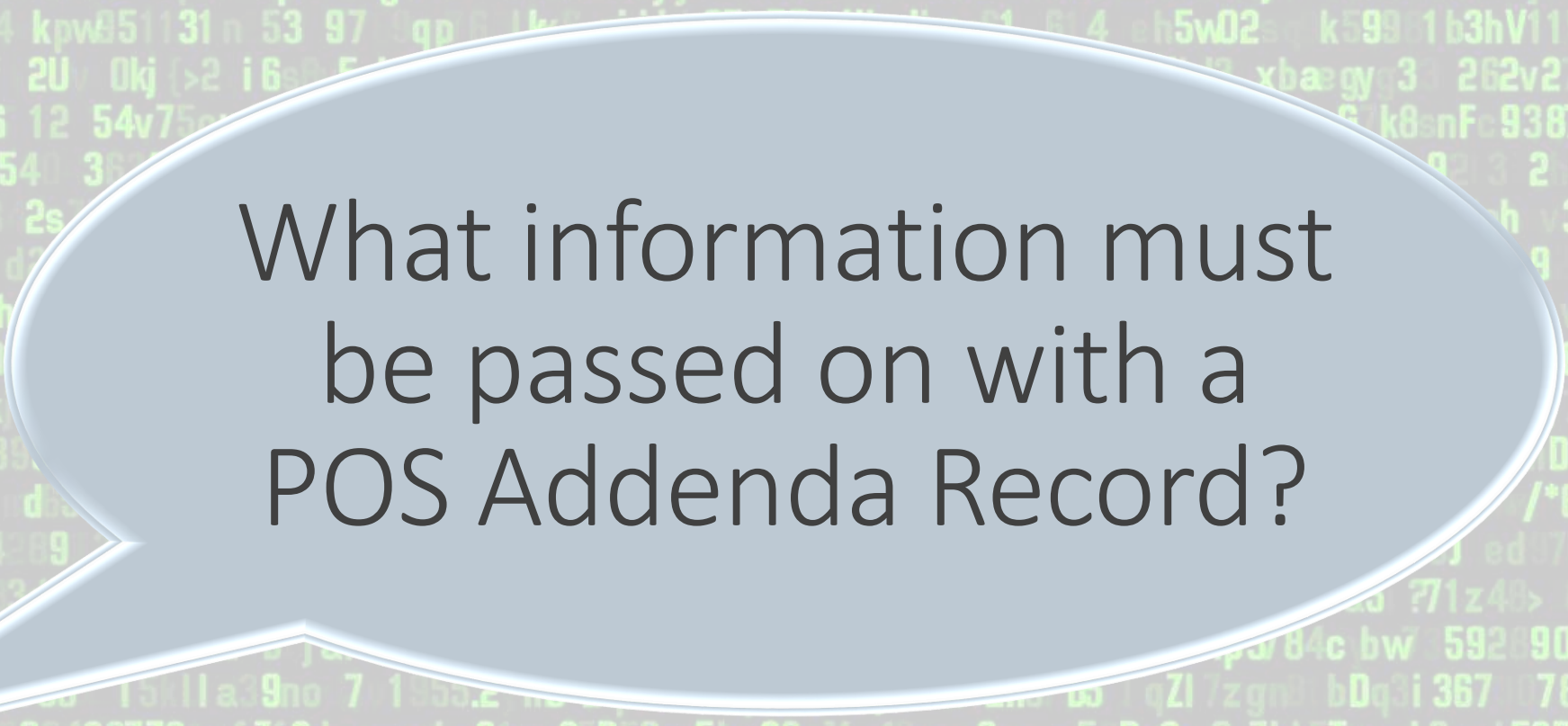
In what record is the
Service Class Code
found?

A blue speech bubble with a white outline and a drop shadow, pointing towards the bottom-left. It contains the text: "How many characters of payment related information is found per Addenda Record for a CCD & CTX?".

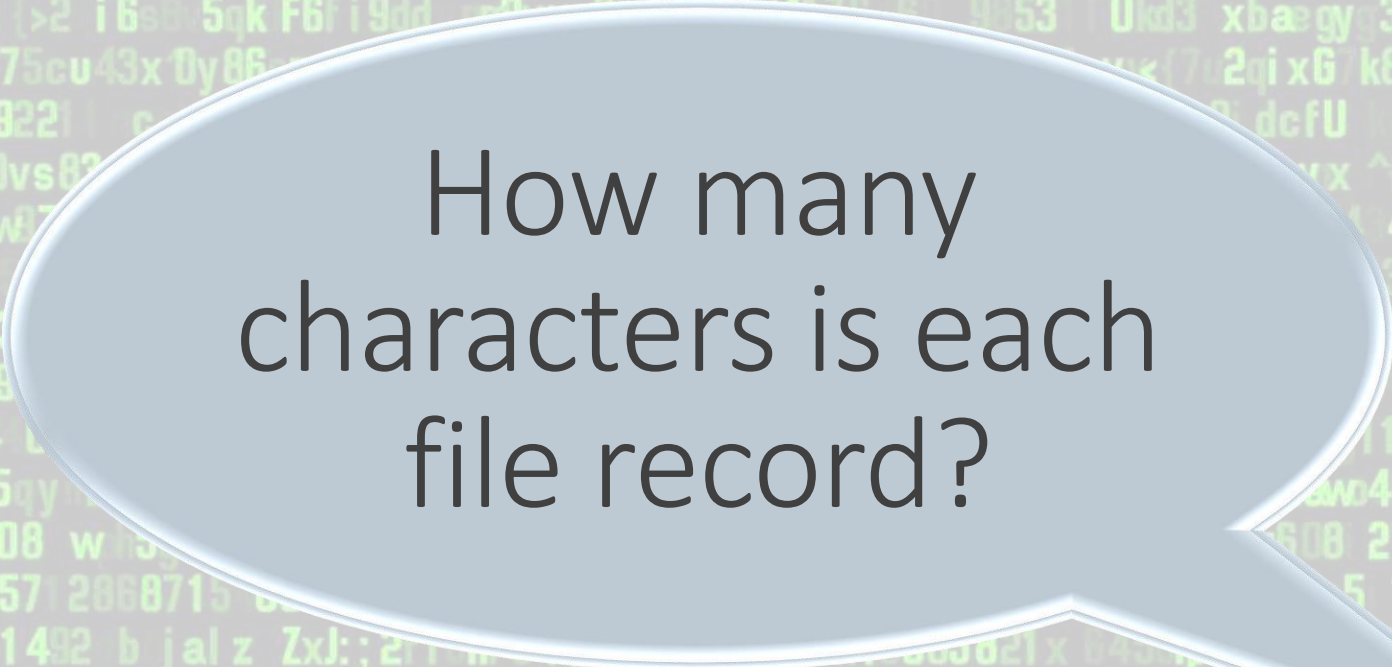
How many characters of
payment related information
is found per Addenda Record
for a CCD & CTX?

A blue speech bubble with a white border and a drop shadow, pointing towards the bottom right. It contains the text "The trace number has how many characters?".

The trace number
has how many
characters?

A blue speech bubble with a white outline and a drop shadow, pointing towards the bottom left. It contains the text "What information must be passed on with a POS Addenda Record?".

What information must
be passed on with a
POS Addenda Record?

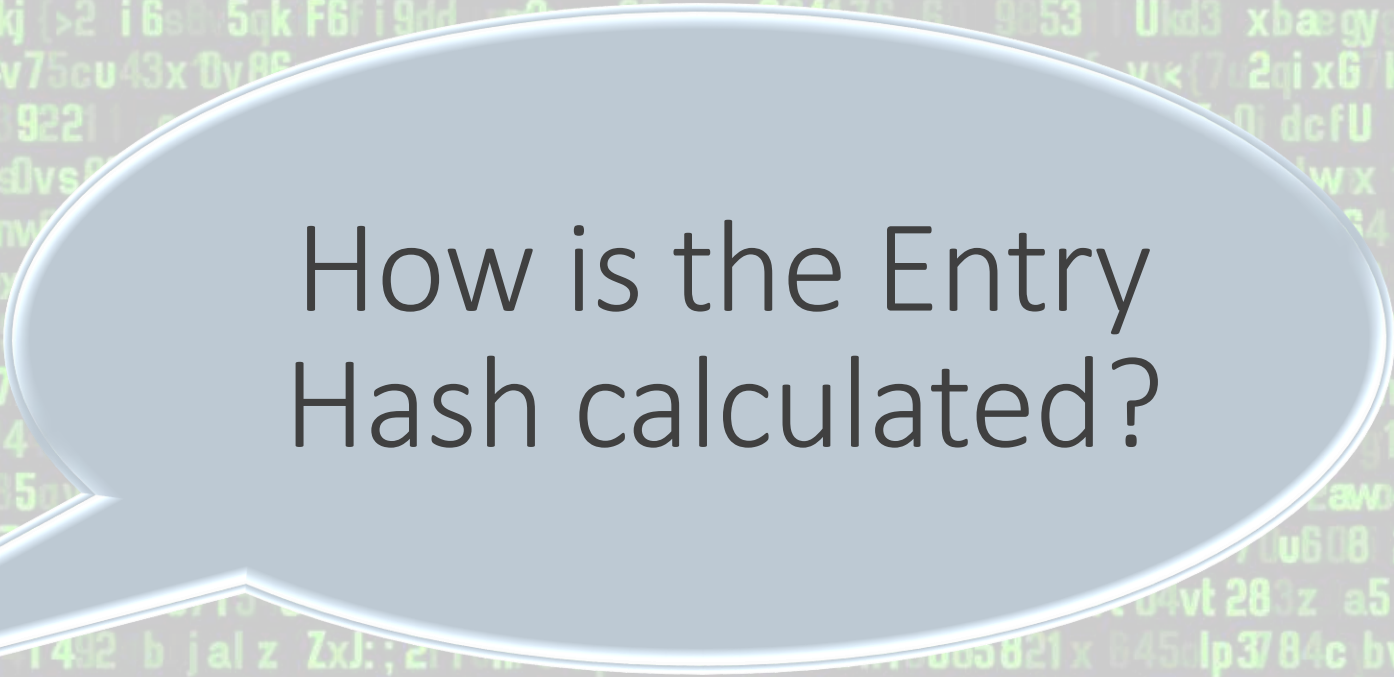


How many
characters is each
file record?

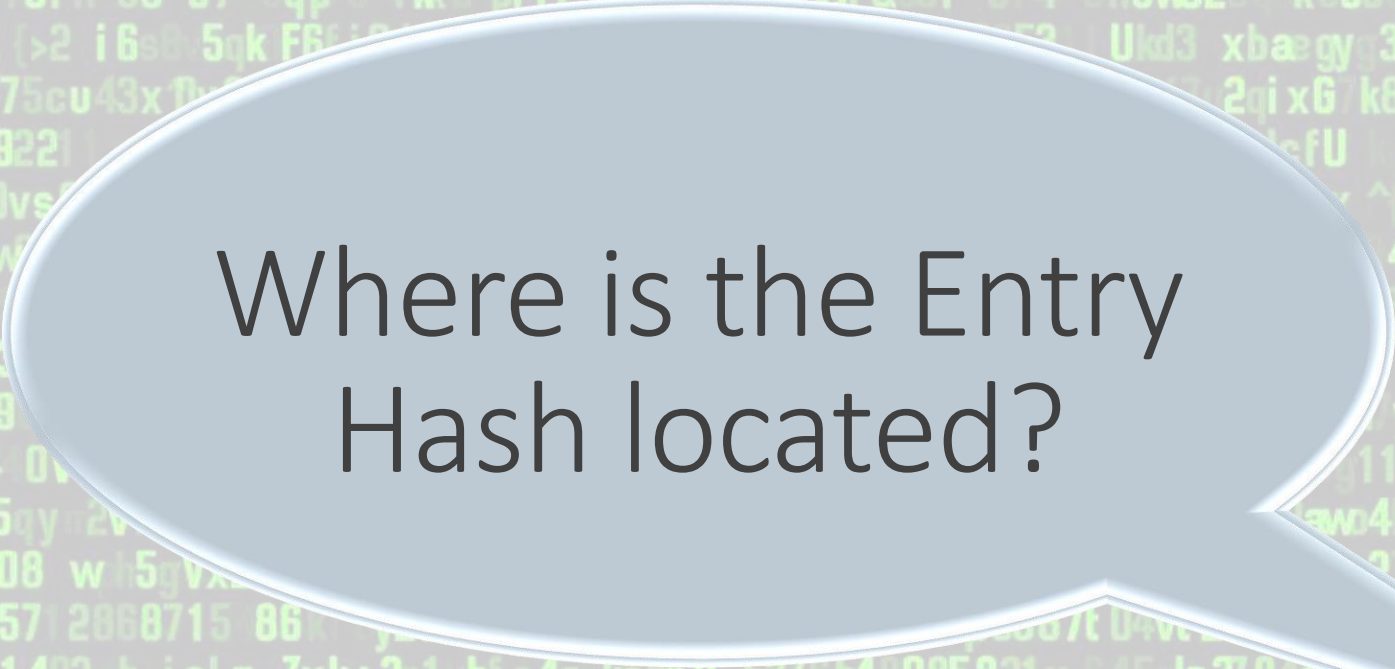


How many lines
are in a block?

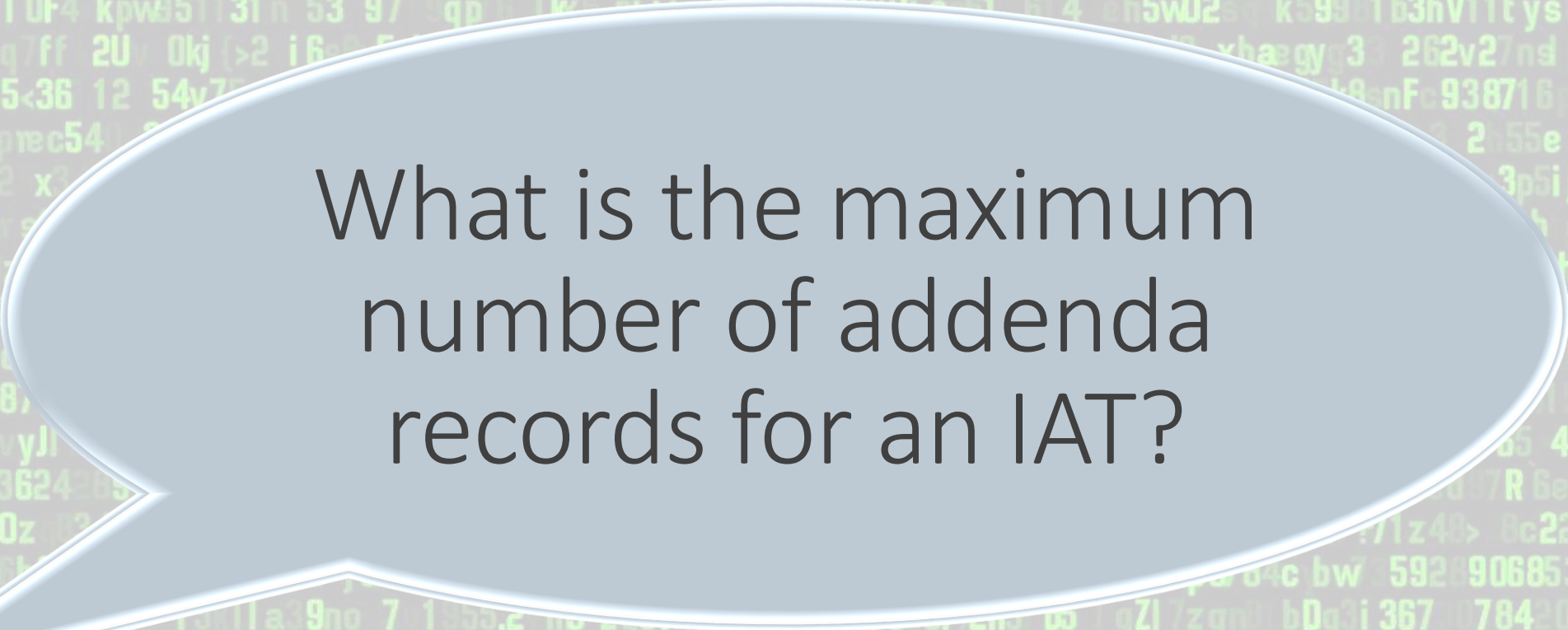
The Company Name, Company ID, Standard Entry Class Code, and Effective Entry Date are found in what record?



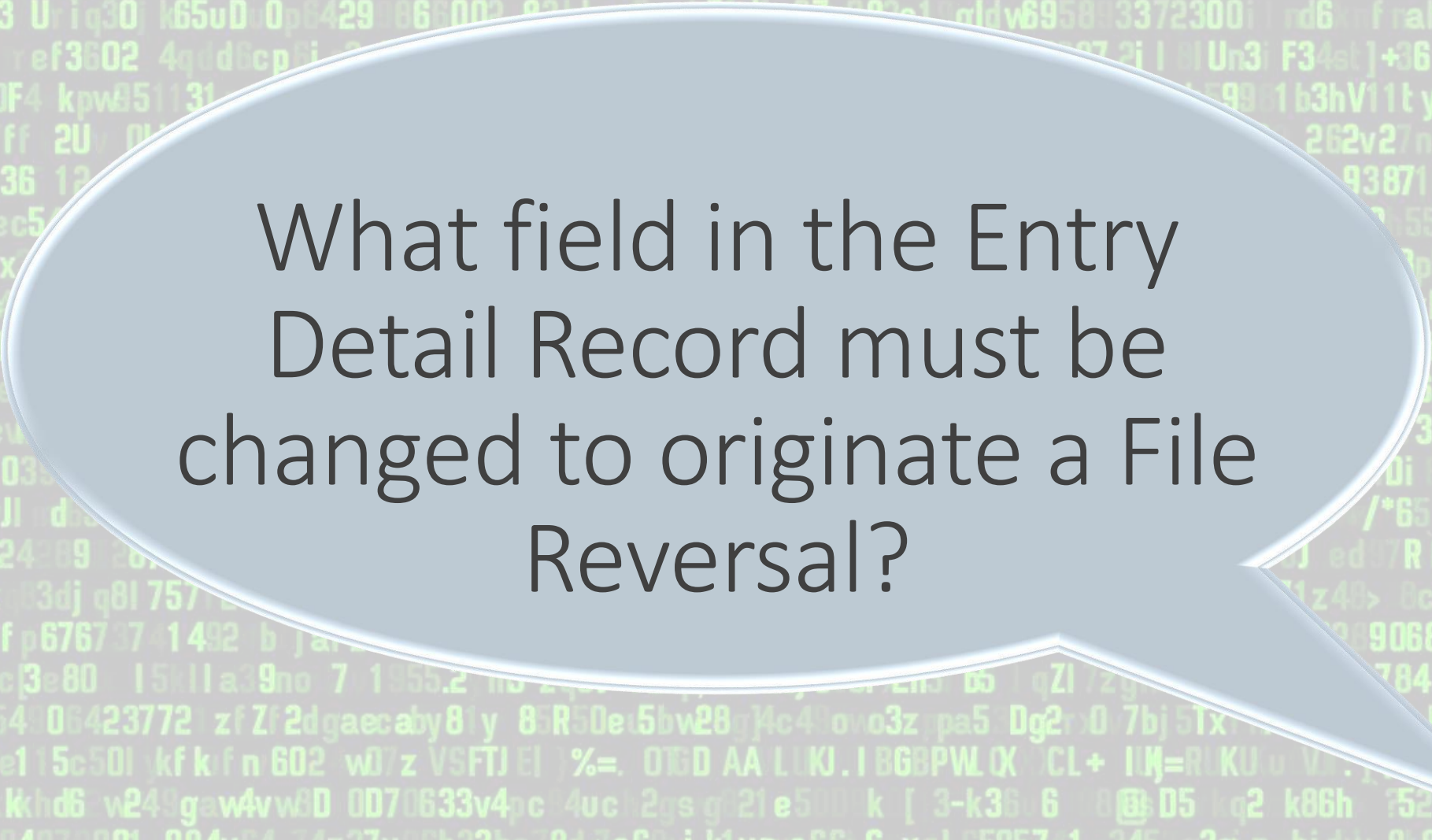
How is the Entry Hash calculated?



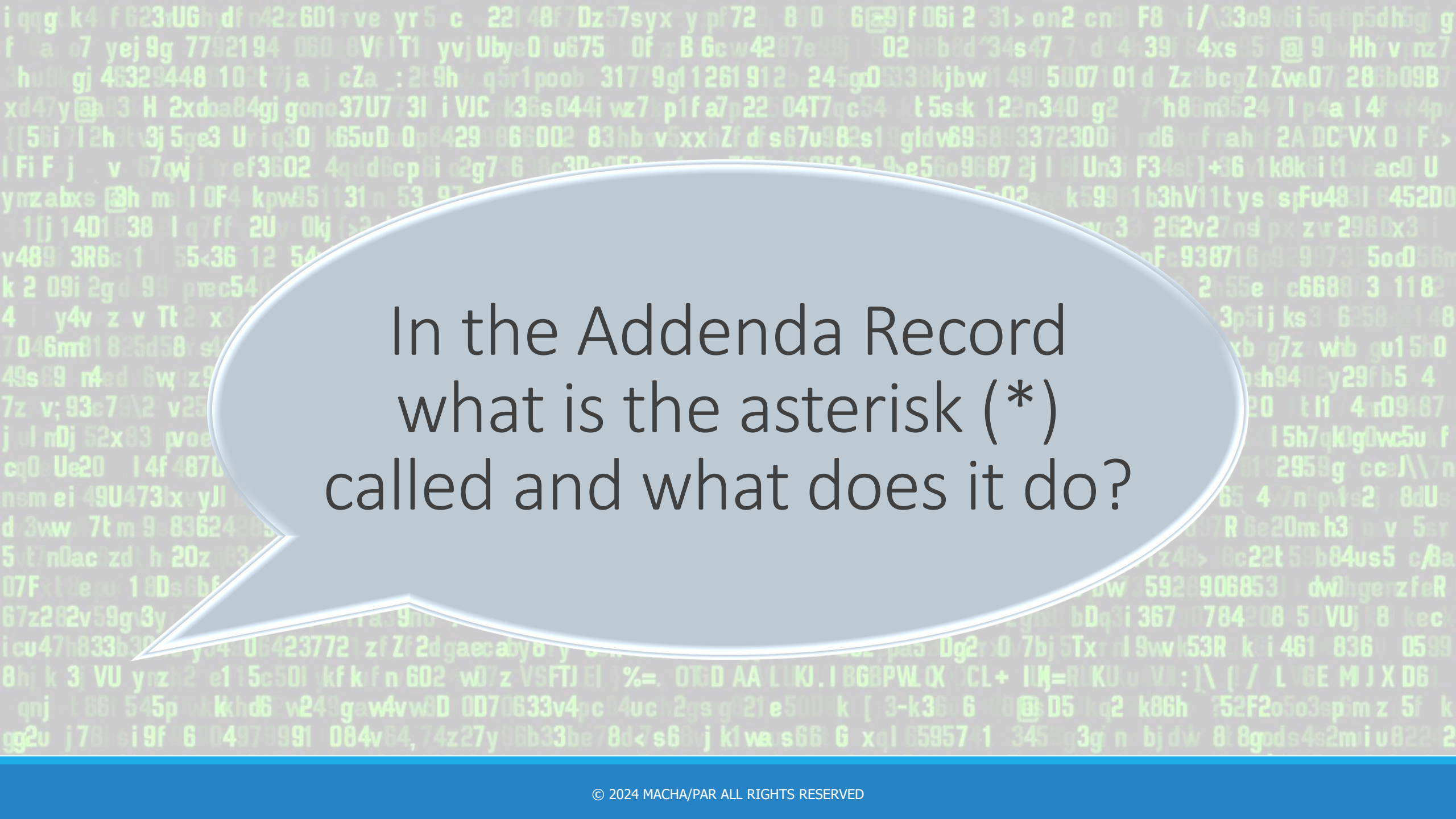
Where is the Entry Hash located?

A blue speech bubble with a white outline and a drop shadow, pointing towards the bottom left. It contains the text "What is the maximum number of addenda records for an IAT?".

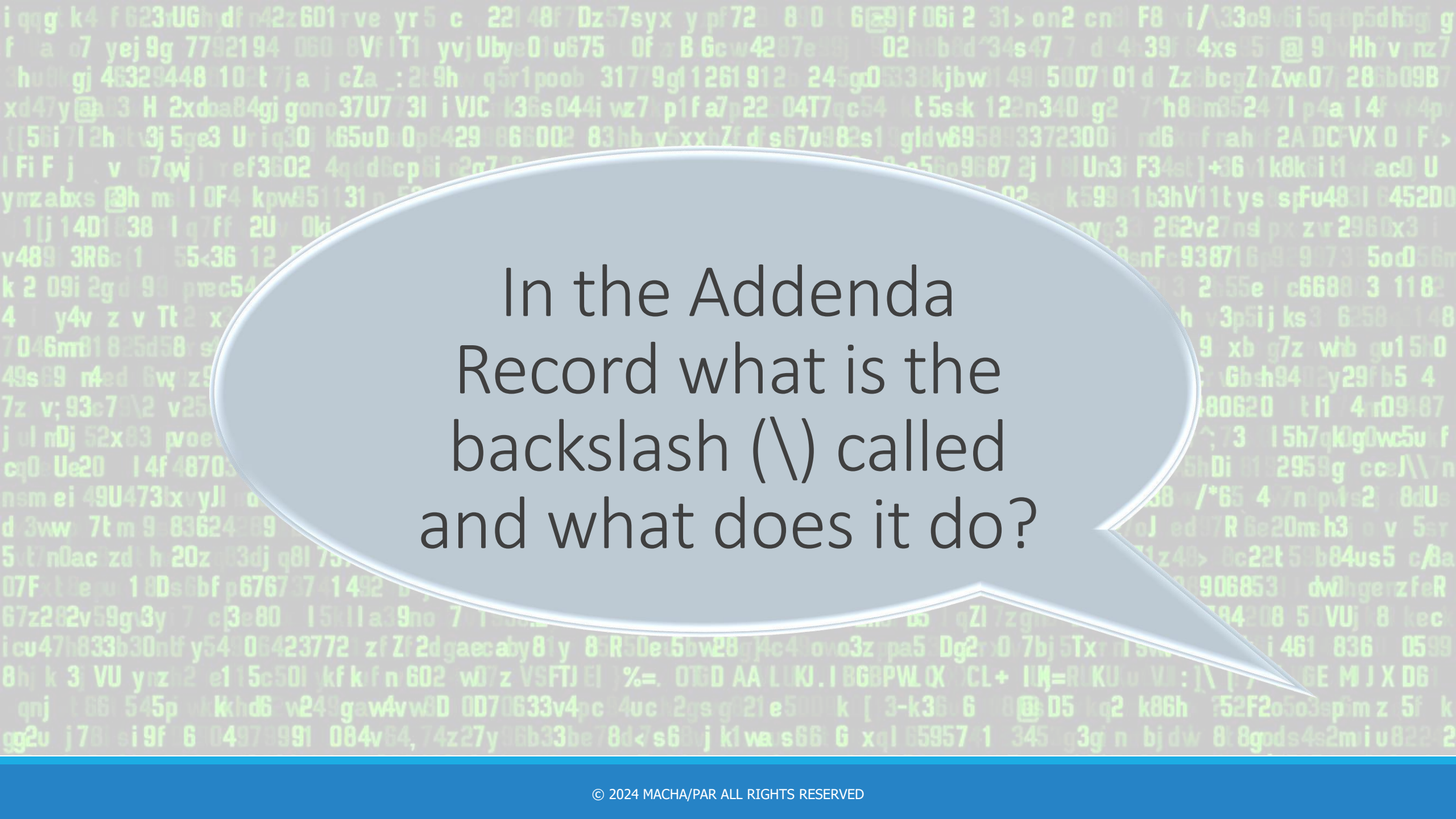
What is the maximum
number of addenda
records for an IAT?

A blue speech bubble with a white border and a white shadow, pointing towards the bottom right. It contains the text: "What field in the Entry Detail Record must be changed to originate a File Reversal?".

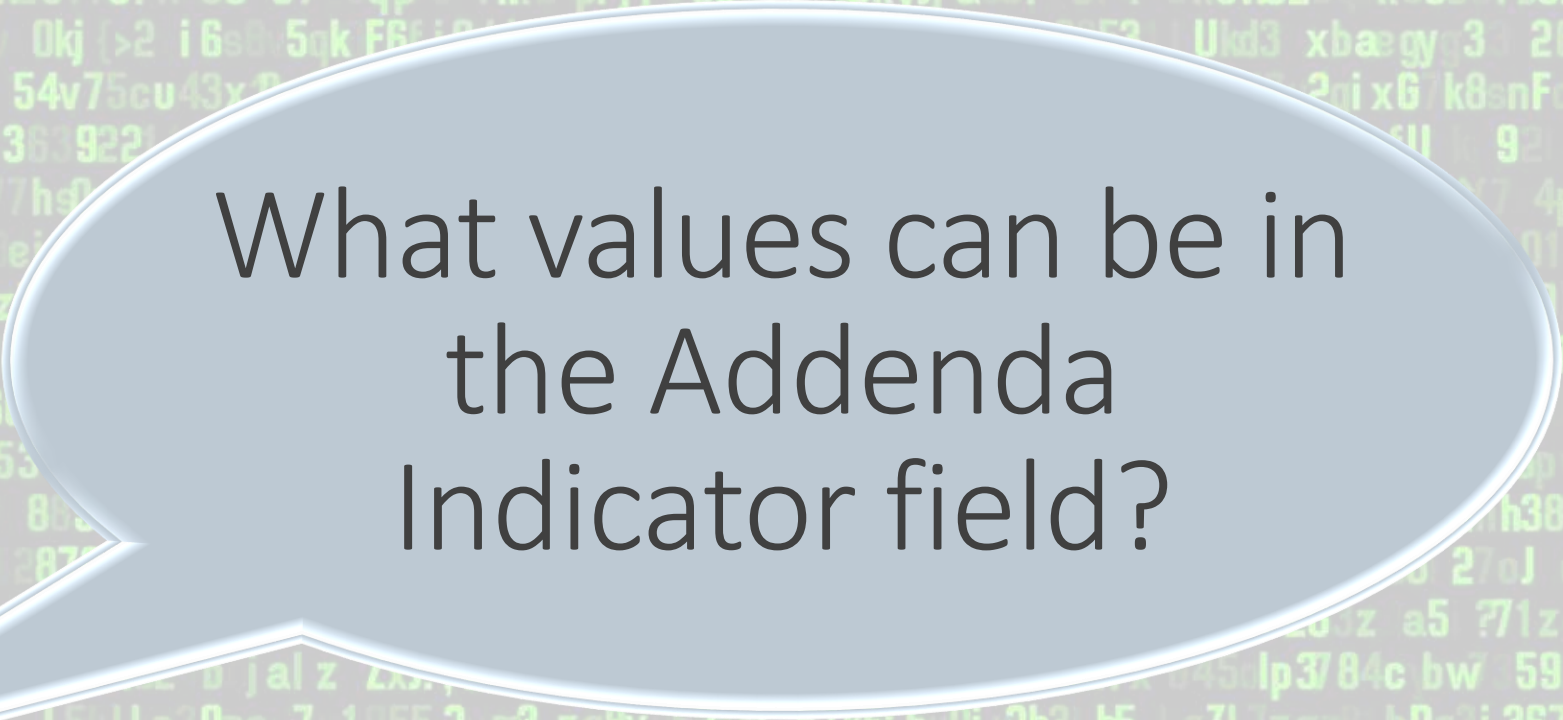
What field in the Entry Detail Record must be changed to originate a File Reversal?



In the Addenda Record
what is the asterisk (*)
called and what does it do?



In the Addenda
Record what is the
backslash (\) called
and what does it do?

A blue speech bubble with a white border and a drop shadow, pointing towards the bottom left. It contains the text "What values can be in the Addenda Indicator field?".

What values can be in
the Addenda
Indicator field?

QUESTIONS