



## ACH FILE STRUCTURE

The ACH format is fixed length ASCII, record length 94, Block 10. The file layout is as follows:

**File Header Record**  
**Batch Header Record**  
**Detail Records**  
**Batch Control Record**  
**File Control Record**

A single file can contain multiple batches, in which case a batch header record will immediately follow the batch control record of the proceeding batch.

### Field Inclusion Requirements:

Each field in each record is designated as mandatory, required or optional (M, R or O). For purposes of processing ACH format files, these terms are defined as follows:

**Mandatory** - The omission of a mandatory field will cause the entry, batch or file to reject at the originating depository financial institution (ODFI) and will be returned to the originator. Mandatory fields ensure the correct routing and/or posting of individual ACH entries.

**Required** - The omission of a required field will not cause an entry to reject at the ODFI, but may cause the entry, batch or file to reject at the receiving depository financial institution (RDFI). Required fields should be included to avoid processing problems at the RDFI.

**Optional** - Inclusion or omission of optional fields is entirely at the discretion of the origination entity.

## FILE HEADER RECORD

(‘1’ record)

The file header fields designate physical file characteristics and identify the origin (sending point) and destination (receiving point) of the entries contained in the file. The file header also includes creation date and time fields which can be used to uniquely identify a file. Files originated through Tompkins Trust Company should contain Tompkins Trust Company transit routing number preceded by a space in the immediate destination. The customers federal id number should be entered in the immediate origin field preceded by a space.

Record Type Code:	‘1’
Priority Code:	‘01’
Immediate Destination:	‘ 021302648’
Immediate Origin:	‘ Federal ID # (preceded by a space)
File Creation Date:	Date the file is created / sent to the bank (YYMMDD)
File Creation Time:	Time stamp the file is created / sent to bank (HHMM)
File ID Modifier:	‘A’
Record Size:	‘094’



Blocking Factor: '10'  
Format Code: '1'  
Destination Name: 'Tompkins Trust Company' (23 characters maximum)  
Origin Name: 'Company Name' (23 characters maximum)  
Reference Code: 'Blank (space fill to 94 character length)'

## **BATCH HEADER RECORD**

('5' Record)

The batch header record identifies the originating entity and the type of transactions contained in the batch (i.e., the standard entry class, PPD for consumer, CCD or CTX for corporate). This record also contains the effective date, or desired settlement date, for all entries contained in the batch. The settlement date field is not entered as it is determined by the ACH operator.

Record Type Code: '5'  
Service Class Code: ACH mixed Debits and Credits '200'  
ACH Credits Only '220'  
ACH Debits Only '225'  
Company Name: The Company Originating Entries in the Batch (must be recognizable by receiver)  
Company Discretionary Data: Typically left blank, but can be used for additional company information  
Company Identification: The 9 digit FEIN number (preceded by a 1) of the entity in the company name field.  
Standard Entry Class: 'PPD' for consumer transactions, 'CCD' or 'CTX' for corporate  
*\*Other SEC Codes do exist, and it is the responsibility of the originator to identify payments with the proper SEC code, and follow all rules and requirements based on the SEC code chosen. Refer to Originating ACH Entries Reference document for more information regarding SEC codes\**  
Company Entry Description: A description of the entries contained in the batch (e.g. Payroll)  
Company Descriptive Date: Typically left blank, can include payment date (YYMMDD)  
Effective Entry Date: The date on which the entries are to settle  
Settlement Date: Leave blank, this field is inserted by the ACH Operator  
Originator Status Code: '1'  
Originating DFI ID: 'First 8 digits of the originating DFI transit routing number, '02130264' for files originated through Tompkins Trust Company  
Batch Number: Sequential batch number, zero fill left

## **ENTRY DETAIL RECORD**

('6' Record)

The detail record contains the actual transaction data for an individual payment. Fields include those designating the entry as a deposit (credit) or withdrawal (debit), the transit routing number for the entry recipient's final institution, the account number (left justify, space fill), name, and dollar amount.

Record Type Code: '6'



Transaction Code:	Credit (deposit) to checking account	'22'
	Pre-note for credit to checking account	'23'
	Debit (withdrawal) to checking account	'27'
	Pre-note for debit to checking account	'28'
	Credit to savings account	'32'
	Pre-note for credit to savings account	'33'
	Debit to Savings account	'37'
	Pre-note for debit to savings account	'38'

*Pre-note entries are zero-dollar ACH entries which allow an originator to verify the validity of a transaction. RDFI's are required to notify the pre-note originator of any incorrect transaction data within three business days of the pre-note effective date.*

Receiving DFI ID:	The first 8 digits of the transit routing number for the transaction recipient's financial institution
Check Digit:	The ninth digit of the transit routing number of the transaction recipient's financial institution
DFI Account Number:	The account number of the consumer or corporate entity receiving the ACH entry (left justify, space fill)
Amount:	The dollar amount of the entry (decimal implied, e.g. \$100 = 10000)
Individual ID Number:	Invoice #, employee #, etc. (optional)
Individual Name:	The name of the entry recipient
Discretionary Data:	leave blank
Addenda Record Indicator:	'0' for no addenda attached '1' for addenda attached
Trace Number:	This field is made up of the first 8 digits of the originating DFI transit routing number and a seven digit (left justify, zero fill) identifier (identifiers need to be sequential and ascending)

## **BATCH CONTROL (TRAILER) RECORD**

('8' Record)

This record contains entry counts, dollar total and has totals for all entries contained in the preceding batch.

Record Type Code:	'8'
Service Class Code:	Must match the same field from the immediately preceding batch header record
Entry/Addenda Count:	Total detail and addenda records in the <u>batch</u>
Entry Hash:	Hash totals are the sum of all transit routing numbers (first 8 digits only) from each entry detail record in the <u>batch</u> , truncated from the higher order if necessary
Total Debit Amount:	Total debits in the <u>batch</u> (decimal implied, e.g. \$100 = 10000)
Total Credit Amount:	Total credits in the <u>batch</u> (decimal implied, e.g. \$100 = 10000)
Company Identification:	Must match the Company ID from the batch header record



Message Authentication Code: Agreed upon code for security purposes (often left blank)  
Reserved Spaces: Leave Blank (6 blank spaces)

Originating DFI Information: Must match same field from the batch header record  
Batch Number: Must match the same field from the batch header record

## **FILE CONTROL (TRAILER) RECORD**

('9' Record)

This record contains entry counts, dollar totals, and hash totals accumulated from each batch control record in the file.

Record Type Code: '9'  
Batch Count: Total number of batches (i.e. '5' records) in the file  
Block Count: Total number of records in the file (include all headers and trailers) divided by 10 (This number must be evenly divisible by 10. If not, additional records consisting of all 9's are added to the file after the initial '9' record to fill a block of 10)  
Entry Addenda Count: Total detail and addenda records in the file  
Entry Hash: Calculated in the same manner as the batch hash total but includes total from the entire file  
Total Debit Dollar Amount: Total Debits in the file (decimal implied, e.g. \$100 = 10000)  
Total Credit Dollar Amount: Total Credits in the file (decimal implied, e.g. \$100 = 10000)  
Reserved Spaces: Leave Blank (39 spaces to complete record)



**ALL ENTRIES FILE HEADER RECORD  
(‘1’ RECORD)**

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Data Element Name</b>	Record Type Code	Priority Code	Immediate Destination	Immediate Origin	File Creation Date	File Creation Time	File ID Modifier	Record Size	Blocking Factor	Format Code	Destination Name	Immediate Origin Name	Reference Code
<b>Field Inclusion Requirement</b>	M	R	M	M	M	O	M	M	M	M	O	O	O
<b>Contents</b>	'1'	Numeric	bTTTTAAAC	bTTTTAAAC	YYMMDD	HHMM	Uppercase (A-Z) Numeric (0-9)	'094'	'10'	'1'	Alpha-numeric	Alpha-numeric	Alpha-numeric
<b>Length</b>	1	2	10	10	6	4	1	3	2	1	23	23	8
<b>Position</b>	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

**ALL ENTRIES COMPANY/BATCH HEADER RECORD  
(‘5’ RECORD)**

FIELD	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>Data Element Name</b>	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	Originator Status Code	Originating DFI Identification	Batch Number
<b>Field Inclusion Requirement</b>	M	M	M	O	M	M	M	O	R	Inserted by ACH Operator	M	M	M
<b>Contents</b>	'5'	Numeric	Alpha-numeric	Alpha-numeric	Alpha-numeric	Alpha-numeric	Alpha-numeric	Alpha-numeric	YYMMDD	Numeric	Alpha-numeric	TTTTAAAA	Numeric
<b>Length</b>	1	3	16	20	10	3	10	6	6	3	1	8	7
<b>Position</b>	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

**PPD ENTRY DETAIL RECORD  
(‘6’ RECORD)**

FIELD	1	2	3	4	5	6	7	8	9	10	11
<b>Data Element Name</b>	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
<b>Field Inclusion Requirement</b>	M	M	M	M	R	M	O	R	O	M	M
<b>Contents</b>	'6'	Numeric	TTTTAAAA	Numeric	Alpha-numeric	\$\$\$\$\$\$\$cc	Alpha-numeric	Alpha-numeric	Alpha-numeric	Numeric	Numeric
<b>Length</b>	1	2	8	1	17	10	15	22	2	1	15
<b>Position</b>	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-94



**PPD ADDENDA RECORD  
(‘7’ RECORD)**

FIELD	1	2	3	4	5
<b>Data Element Name</b>	Record Type Code	Addenda Type Code	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
<b>Field Inclusion Requirement</b>	M	M	O	M	M
<b>Contents</b>	'7'	'05'	Alpha-numeric	Numeric	Numeric
<b>Length</b>	1	2	80	4	7
<b>Position</b>	01-01	02-03	04-83	84-87	88-94

**CCD ENTRY DETAIL RECORD  
(‘6’ RECORD)**

FIELD	1	2	3	4	5	6	7	8	9	10	11
<b>Data Element Name</b>	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
<b>Field Inclusion Requirement</b>	M	M	M	M	R	M	O	R	O	M	M
<b>Contents</b>	'6'	Numeric	TTTTAAAA	Numeric	Alpha-numeric	\$\$\$\$\$\$\$cc	Alpha-numeric	Alpha-numeric	Alpha-numeric	Numeric	Numeric
<b>Length</b>	1	2	8	1	17	10	15	22	2	1	15
<b>Position</b>	01-01	02-03	04-11	12-12	13-29	30-39	40-54	55-76	77-78	79-79	80-94

**CCD ADDENDA RECORD  
(‘7’ RECORD)**

FIELD	1	2	3	4	5
<b>Data Element Name</b>	Record Type Code	Addenda Type Code	Payment Related Information	Addenda Sequence Number	Entry Detail Sequence Number
<b>Field Inclusion Requirement</b>	M	M	O	M	M
<b>Contents</b>	'7'	'05'	Alpha-numeric	Numeric	Numeric
<b>Length</b>	1	2	80	4	7
<b>Position</b>	01-01	02-03	04-83	84-87	88-94



**ALL ENTRIES COMPANY/BATCH CONTROL RECORD  
(‘8’ RECORD)**

FIELD	1	2	3	4	5	6	7	8	9	10	11
<b>Data Element Name</b>	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
<b>Field Inclusion Requirement</b>	M	M	M	M	M	M	R	O	N/A	M	M
<b>Contents</b>	'8'	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	Alpha-numeric	Alpha-numeric	Blank	TTTTAAAA	Numeric
<b>Length</b>	1	3	6	10	12	12	10	19	6	8	7
<b>Position</b>	01-01	02-04	05-10	11-20	21-32	33-44	45-54	55-73	74-79	80-87	88-94

**ALL ENTRIES FILE CONTROL RECORD  
(‘9’ RECORD)**

FIELD	1	2	3	4	5	6	7	8
<b>Data Element Name</b>	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
<b>Field Inclusion Requirement</b>	M	M	M	M	M	M	M	N/A
<b>Contents</b>	'9'	Numeric	Numeric	Numeric	Numeric	\$\$\$\$\$\$\$\$\$cc	\$\$\$\$\$\$\$\$\$cc	Blank
<b>Length</b>	1	6	6	8	10	12	12	39
<b>Position</b>	01-01	02-07	08-13	14-21	22-31	32-43	44-55	56-94