



# **ACH Direct Payments (PAP-PAD) Service**

**Canadian Payments Association  
CPA-005**

**Debit File Format Specifications**

Version 9  
September, 2013

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## General Information

### Summary

**Canadian Payments Association (CPA)** layout is used by Canadian Banks when exchanging electronic CAD or USD payment details with other Canadian Banks. It is recommended for clients who have mainframe systems and only intend processing payments **within Canada**. **A separate file** must be sent for USD payments and CAD payments.

CPA format **cannot** be used for electronic payments destined to the United States.

### Format and Organization

Each first and last logical record of any file must be logical record types "A" and "Z" respectively. All other logical records contain transaction information. A logical file may only contain payment type "D" transactions.

Logical file must consist of logical records in sequence of:

- Header Record, type A
- Payments Records, type D
- Trailer Record, type Z

Multiple logical files up to a maximum of 1000 can be submitted on a physical transmission.

### Basic Specifications

Input must conform to Canadian Payments Association Record Descriptions (264/1464 characters per record).

All fields on the records have an indicator as to their format:

(N) = Numeric  
(AN) = Alphanumeric

All numeric fields must be unsigned, right justified, and zero filled.

Alphanumeric fields will be left justified with unused spaces left blank unless noted otherwise.

All unused fields should have an initial value of zeros (11110000 binary code EBCDIC or 00110000 binary code ASCII), if numeric, or spaces (01000000 binary code EBCDIC or 00100000 ASCII), if alphanumeric.

### Currency

#### Header Record

Destination Currency can be either Canadian or US Dollars. If "blank", the Currency will default to the currency of the Service. If in the "Destination Currency" field on the file layout, the **input is other than CAD, or USD or BLANK**, we will default the payment to the currency of the service.

CPA format cannot be used for payments destined to the United States.

## Use of Client Numbers in File

### **Clients with No Subsidiaries (Centralized)**

All basic records **must** have the same subsidiary number (0000) as the header record.

### **Operating Subsidiaries**

All basic records **must** have the same subsidiary number as the header record.

### **Non-operating Subsidiaries**

The header and trailer must be the Parent 6 digit number assigned plus 0000. Each basic record may have the last 4 digits different, depending on where the record would be returned.

## Destination Country

There is no "**Destination Country**" field on the CPA format as this file layout cannot be used to send payments to the United States. The CPA format is strictly used for payments destined to Canada.

## Account Numbers

The maximum length for a savings or chequing account number drawn on a Canadian financial institution is 12 digits. This 12 digit restriction is set by the Canadian Payments Association (CPA).

## Service

Clients using this file format will be able to utilize:

ACH Direct Payments (PAP-PAD) - CAD Service  
ACH Direct Payments (PAP-PAD) - USD Service

## Service/Client Number Format

This format requires the use of a ten digit client number, comprised of six digits assigned by RBC Royal Bank and four digits assigned by the client to identify a subsidiary (may be zeros).

## File Transmission Routing Records

Please refer to Appendix 2 at the end of this document for details on generating the Routing Record for transmission methods such as RBC Express File Transfer, Web File Transfer and FTP SSL.

For Dedicated and Private Network Solutions, such as Connect:Direct and SWIFT NetFile Act, please ensure you are in contact with RBC's Client Connectivity Team directly.

## DESCRIPTION OF RECORD FORMATS

### HEADER RECORD

This header record is used to delimit the beginning of each input file and must be the first record on each file.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-01	1	AN	Record Type	A
02	02-10	9	N	Record Count	000000001
03	11-20	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by RBC Royal Bank & 4 digit Operating subsidiary number assigned by the client or 0000.
04	21-24	4	AN	File Creation Number	4 digit number (numeric) to identify this file, must be different from previous 9 numbers submitting for processing. When submitting a test file, the FCN must be <b>TEST</b>
05	25-30	6	N	File Creation Date	Format 0YYDDD
06	31-35	5	N	Royal Bank Processing Centre	The centre where the file will be processed. Halifax 00330 Montreal 00310 Toronto 00320 Regina 00278 Winnipeg 00370 Calgary 00390 Vancouver 00300
07	36-55	20	AN	Reserved	Leave Blank
08	56-58	3	AN	Destination Currency Code Identifier	"USD" = if destination currency is US Dollars. OR "CAD" = if destination currency is CAD Dollars  If "Blank"= defaults to the Currency of Service.
09	59-1464	1406	AN	Filler	Leave Blank.

## BASIC PAYMENT RECORD

This record must be completed for each debit payment record to be produced.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-01	1	AN	Record Type	D
02	02-10	9	N	Record Count	Increment by 1
03	11-20	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by the RBC Royal Bank and 4 digit Operating subsidiary number assigned by the client or 0000.
04	21-24	4	AN	File Creation Number	Number to identify this file, must be different from previous 9 numbers submitted for processing. When submitting a test file, the FCN must be <b>TEST</b>
<b>SEGMENT ONE</b>					
05	25-27	3	AN	Transaction Code	Three digit transaction code as defined by the CPA. If no transaction code is entered, it will default to the transaction code on the profile. Refer to Appendix 1.
06	28-37	10	N	Amount	Payment amount format \$\$\$\$\$\$\$ <i>cc</i>
07	38-43	6	N	Payment Date	Format OYYDDD, cannot be more that 173 days in the past or 173 in the future.
08	44-52	9	N	CAD Financial Institution and Branch Transit #	0999 Bank number 99999 Branch Transit number
09	53-64	12	AN	Account Number	Enter all significant digits of customer account number. Do not zero fill.
10	65-86	22	N	Reserved	Zero fill
11	87-89	3	N	Reserved	Zero fill
12	90-104	15	AN	Client Short Name	Will appear on customer statements. If left blank, client short name will default from Client Profile. Do no enter ZEROS in this field.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
13	105-134	30	AN	Customer Name	Mandatory – If this field is missing, the payment will reject.
14	135-164	30	AN	Client Name	Client Long Name
15	165-174	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by RBC Royal Bank and 4 digit Operating subsidiary number assigned by the client or 0000.
16	175-193	19	AN	Customer Number	Client Assigned
17	194-202	9	N	Reserved	Zero fill
18	203-214	12	AN	Reserved	Blank
19	215-229	15	AN	Client Sundry Information	Optional to client, electronic message printed on some customer bank statements
20	230-251	22	AN	Reserved	Blank
21	252-253	2	AN	Reserved	Blank
22	254-264	11	AN	Reserved	Blank
<b>SEGMENT TWO THROUGH SIX (SAME FORMAT AS SEGMENT ONE) 265-1464</b>					

**Note:** Refer to “Basic Specifications” section on page 2 of this document for information on unused segments.

## TRAILER RECORD

This trailer record is used to indicate the end of the client's input file and must be the last record on each file. When the file is processed, all payments will be totaled and balanced to the values on this trailer record.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-01	1	AN	Record Type	Z
02	02-10	9	N	Record Count	Increment by 1
03	11-20	10	AN	Client Number	Must be the same as the Header.
04	21-24	4	AN	File Creation Number	Number to identify this file, must be different from previous 9 numbers submitted for processing. When submitting a test file, the FCN must be <b>TEST</b>
05	25-38	14	N	Total Amount of Debit Payment Transactions	Total amount of record type D payments. Right justify with leading zeros. Format \$\$\$\$\$\$\$\$\$\$cc
06	39-46	8	N	Total Number of Debit Payment Transactions	Number of record type D payments
07	47-60	14	N	Reserved	Zero fill
08	61-68	8	N	Reserved	Zero fill
09	69-1464	1396	N	Filler	Zero fill



## Appendix 1 – Canadian CPA Transaction Codes

For the most recent listing of transactions codes refer to the ACH Direct Payments & Deposits Resource Centre.

Quick Reference - Payment Transaction Codes

English: <https://www.rbcroyalbank.com/ach/>

French: <https://www.rbcroyalbank.com/ach-fr/>

## Appendix 2 – File Transmission Routing Records

Files which are submitted using file transmission services such as Web File Transfer or FTP SSL, will require a routing record which will be the first record in the file. For Dedicated or Private Connectivity solutions such as Connect:Direct, or SWIFTNet File Act, please contact RBC's Client Connectivity Team directly for assistance.

The standard convention of this File Qualifier is as follows:

These header records will accommodate French Characters within the file.

- Test Input of full Record length of 1464 bytes  
**\$\$AA01CPA1464[TEST[NL\$\$**
- Production Input of full Record length of 1464 bytes  
**\$\$AA01CPA1464[PROD[NL\$\$**
- Test Input of full Record length of 80 bytes  
**\$\$AA01CPA1464[TEST[80\$\$**
- Production Input of full Record length of 80 bytes  
**\$\$AA01CPA1464[PROD[80\$\$**

Existing Clients may also use the following header records.

These header records will not accommodate French Characters within the file. French Characters may be changed to blanks or other letters.

- Test Input with full record length of 1464 bytes  
**\$\$AAPACPA1464[TEST[NL\$\$**
- Production Input of full record length of 1464 bytes  
**\$\$AAPACPA1464[PROD[NL\$\$**
- Test Input with record broken down into 80 byte segments  
**\$\$AAPACPA1464[TEST[80\$\$**
- Production Input with record broken down into 80 byte segments  
**\$\$AAPACPA1464[PROD[80\$\$**

**END**