



ACH Direct Deposits (PDS) Service

RBC Standard 152

STD

Credit File Format Specification

Version 10

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General Information

Summary

RBC Standard Format (STD) layout is unique to RBC and is recommended for business clients whose electronic CAD or USD payments are destined to Canadian Banks and/or electronic USD payments are destined to USA Banks. A mixture of electronic USD payments and CAD payments can be part of the same file. Bank Clients who process payments on behalf of other banks/FI's MUST use RBC ACH File Format for processing payments to the USA.

Format and Organization

Each first and last logical record of any file must be logical record types "A" (Header) and "Z" (Trailer) respectively. All other logical records contain transaction information. A logical file may only contain payment type "C" transactions. Characters to be used are restricted to A-Z and 0-9. Any other characters are not to be used. Please note for payments destined to the USA, the USA ACH Network cannot handle French Characters. If French Characters are received for payments destined to the USA, when RBC processes the cross border payment, the system will replace the French Character with a blank space.

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

Basic Specifications

- Input must conform to the RBC Standard (STD) Record Descriptions (152 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 and right justified and zero filled.
- Alphanumeric fields shall be left justified and blank filled.
- 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 00110000 binary code ASCII), if alphanumeric.

Currency of Service vs. Destination Currency

- Header record – Currency of service can be Canadian or United States dollars. Currency of service is the same currency as the funding account for the ACH Direct Deposit Service.
- Basic record – **Destination currency** can be Canadian or United States dollars. Destination Currency is the currency of the destination account. If the **Destination Currency** is different that the currency of the ACH Service Account (funding account), the system will convert the payment at the current rate of exchange at time the payment is selected from the Pending Database. If "**blank**", the destination currency will default to the currency of service.
- If the **Destination Currency** field is other than CAD, or USD or Blank, the payment will fail on input and be flagged as invalid error for each applicable payment.

Example: ACH Direct Deposit Service PDS - CAD

- Currency of Service is Canadian \$\$
- Payment Record amount = \$100
- Destination Currency = USD

- Funding account will be debited for \$100 on value date. Beneficiary will be credited the USD equivalent of CAD100.

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

The financial institution on which the item is drawn can be in Canada or the United States.

When payment transactions are destined for a U.S. financial institution:

- The destination currency must be USD.
- U.S. bank identification number:
 - First four positions TTTT = transit routing and ABA number
 - Second four positions AAAA = financial institution number
 - Ninth Position R = transit routing code

Note: In the Basic Payment Record, the "Destination Country" field is mandatory.

Account Numbers

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

The maximum length of an account number drawn on a U.S. financial institution is 17 digits.

Do not zero fill account numbers. Input only the significant digits and always left justify.

Service

Clients using this file format will be able to utilize:

- The ACH Direct Deposits (PDS) - CAD Service
- The ACH Direct Deposits (PDS) - USD Service

Client Number Format

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

File Transmission Routing Records

Please refer to Appendix 3 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.

NACHA IAT Rule – Cross Border Payment Processing

Effective September 18th, 2009, an amendment to the *NACHA Operating Rules (Rules)* became effective that (1) require Originating Banks to identify all international payment transactions transmitted via the ACH Network as International ACH Transactions using a new Standard Entry Class Code (IAT); and

(2) require IAT transactions to include the specific data elements defined within the Bank Secrecy Act's (BSA) "Travel Rule" so that all parties to the transaction have the information necessary to comply with U.S. law, which includes the programs administered by the Office of Foreign Assets Control (OFAC).

This amendment aligns the *Rules* with OFAC compliance obligations and make it easier for Receiving Banks to comply with those requirements.

As a result the RBC STD format was modified to include two new records that will be mandatory for all clients who process payments destined to the United States. All payments destined to the USA will automatically be defined as an International ACH Transaction (IAT) by the RBC System.

The two records include addressing information from the Originator of the payment and the address information for Customer/Recipient of the payment. Each basic payment detail requires two address records to follow.

RBC system will create additional mandatory records on behalf of the client. These records are

1. Recipient Bank Information – RBC can create this based on the destination bank number from the Entry Detail Record.
2. Originator Bank Information – as all business clients' payments are originating from RBC Toronto, RBC will create this record.
3. Correspondent Bank Information – as all client payments are processed via our RBC New York ABA number, RBC will create this record.

IMPORTANT NOTICE: BANK CLIENTS who process payments on behalf of other banks or Financial Institutions MUST use the ACH094 File Format for processing their payments.

IAT Format - Originator & Receiver Address Format

To ensure that payments are not rejected by the receiving bank or processing is not delayed, formatting of the address records is as follows:

- a. It is strongly recommended that all segments of the address field be provided and correct formatting is used. Incorrect formatting may result in the payment being rejected by the receiving bank
- b. Each field must be left justified.
- c. Do not include leading/trailing spaces.
- d. Do not insert spaces or commas between the data elements.
- e. Hotels and/or Motels addresses are not permitted unless it is the permanent address of the receiver.
- f. Addresses for all Originators and/or Receivers must be the physical street address. General use of PO Box is not allowed. In rare instances it is possible that a Street address does not exist for your customer, this would be the only time a PO Box would be acceptable. Every effort on your part must be made to obtain the physical/street address. Use of a PO Box addresses will be reported on your Warnings Report.
- g. Mandatory use of the 2 digit ISO Country Codes.
http://www.iso.org/iso/country_codes/iso_3166_code_lists/country_names_and_code_elements
- h. Recommended where possible to use the 2 digit ISO Province or State codes.
- i. Originator or Receiver - **City and Province or State**
 - Data Elements must be separated by an asterisk * and must end with a backslash \.
 - Examples: MONTREAL*QC\ ATLANTA*GA\
 - In some cases, a defined data element may be unknown or not applicable.
 - i. If the first data element is missing, the format still must use an asterisk * and the backslash should immediately follow the last known data element. In this example the City name is missing, the format would be:
*Province\ *QC\
*State\ *GA\
Reminder – no leading spaces, left justify.
 - ii. If the last data element is missing, do not include the asterisk * but the backslash is still mandatory at the end. In the example if missing the Province or State, the format would be:
City\ Montreal\
Reminder – no leading spaces, left justify.
- j. Originator or Receiver - **Country and Postal or Zip Code**
 - Data Elements must be separated by an asterisk * and must end with a backslash \.
 - Examples: CA*A1B2C3\ US*123456789\
• In some cases, a defined data element may be unknown or not applicable.
 - i. If the last data element is missing, do not include the asterisk * but the backslash is still mandatory at the end. In the example if missing the Postal or Zip Code, the format would be:
Country\ US\
Reminder – no leading spaces, left justify.

Identification of Additional Parties to an IAT Cross Border Payment

International Payments can involve more parties than the two traditionally identified as Originator and Receiver; these are commonly known as “split-transactions” payments or “for further credit to” payments, where a third-party service provider originates and settles two separate transactions to complete the underlying payment transactions on behalf of the parties.

This NACHA ACH Rule establishes an obligation to identify within an IAT Entry:

1. ACH Direct Payment Services (PAP-PAD)
 - a. the ultimate foreign beneficiary of the funds transfer when the proceeds from a debit IAT Entry from an account in the USA are for further credit to an ultimate foreign beneficiary that is a party other than the Originator of the debit IAT Entry, or
2. ACH Direct Deposits Service (PDS)
 - a. the foreign party ultimately funding a credit Southbound IAT Entry when that party is not the Originator of the credit IAT Entry.

The ultimate Payer (if not the Originator of the ACH Credit payment) must be identified in the Payment Related Information Field of the IAT Remittance Addenda Record.

Formatting of Additional Parties:

Must include the ultimate foreign payer’s name, street address, city, state/province, postal/zip code, and 2 digit ISO Country Code.

Example: Johann Schmidt*Mainzer Landstrasse 201*60326 Frankfurt am Main*DE\
 ABC Company Ltd*123 Londonderry Road*Dublin*IE\

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	01-06	6	N	Record Count	000001
02	07-07	1	AN	Record Type	A
03	08-10	3	AN	Transaction Code	HDR
04	11-20	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by RBC and 4 digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field.)
05	21-50	30	AN	Client Name	Mandatory
06	51-54	4	AN	File Creation Number	4 digit number (numeric) to identify this file, must be different from previous 9 numbers submitted for processing. When submitting a test file, the FCN must be TEST
07	55-61	7	N	File Creation Date	Julian Date Format YYYYDDD
08	62-64	3	AN	Currency Type	Currency of service CAD or USD
09	65-65	1	AN	Input Type	1
10	66-80	15	AN	Filler	Blank
11	81-86	6	AN	Reserved	Blank
12	87-94	8	AN	Reserved	Blank
13	95-103	9	AN	Reserved	Blank
14	104-149	46	AN	Filler	Blank
15	150-151	2	AN	Filler	Blank
16	152-152	1	AN	Filler	Blank

Basic Payment Record

Complete this basic payment record for each credit payment to be produced.

Field #	Character Position	Field Size	Format	Field name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	C credit payment
03	08-10	3	AN	Transaction Code	Three digit transaction code as defined in Appendix 1 for CPA codes or USA codes. For payments destined to Canada, if no transaction code is entered, it will default to the transaction code on the profile. For payments destined to the USA, it is mandatory to enter the transaction code, otherwise the payment will be "T" level error.
04	11-20	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by the , and 4 digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field.)
05	21-21	1	AN	Filler	Blank
06	22-40	19	AN	Customer Number	Client Assigned, Left Justify USA destined payments – max can only be 15 characters
07	41-42	2	N	Payment Number	00 to 99
08	43-46	4	N	CAD Financial Institution Number	Format 0999 (bank number)
09	47-51	5	N	CAD Financial Institution Branch Number	Format 99999 (branch/transit number).
OR					
08/09	43-51	9	N	USA Routing Number	9 digit number as supplied by customer-must be an ACH participant
10	52-69	18	AN	Account Number	Your customer's account number. Field must be left justified. Enter significant digits only. Do not zero fill.
11	70-70	1	AN	Filler	Blank
12	71-80	10	N	Payment/Input Amount	Format \$\$\$\$\$\$cc. Right justify with leading zeros. Amount must be in the currency of the service.

Field #	Character Position	Field Size	Format	Field name	Data Requirements
13	81-86	6	AN	Reserved	Blank.
14	87-93	7	N	Payment Date	Payment due date, format YYYYDDD. Cannot be more than 30 days in the past or 173 in the future. For Payments Destined to USA: Today or greater, maximum of 173 days.
15	94-123	30	AN	Customer Name	Mandatory
16	124-124	1	AN	Language Code	E English F French
17	125-125	1	AN	Reserved	Blank
18	126-140	15	AN	Client Short Name	For customer statements. This will appear on most bank statements. If left blank, client short name from client profile will default. Do not enter ZEROS in this field.
19	141-143	3	AN	Destination Currency	Currency that the funds are to be made payable in. CAD Canadian \$\$ USD American \$\$ If blank = defaults to the currency of the service. If other than CAD or USD, payment will be "T" level error.
20	144-144	1	AN	Reserved	Blank
21	145-147	3	AN	Destination Country	Mandatory The country where the payment should be made. CAN Canada USA United States
22	148-149	2	AN	Filler	Blank
23	150-151	2	AN	Reserved	Blank
24	152-152	1	AN	Optional Record Indicator	Y if customer level optional information follows, otherwise enter N

Electronic Funds Transfer Message Record

This is an optional customer level record and when used must immediately follow the basic payment record. This client sundry information may be printed on the destination account bank statement. Note: not all FI's will print this 3rd line of information on statements. **Applicable for payments destined to Canadian Banks only.**

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	C
03	08-10	3	AN	Transaction Code	RET
04	11-20	10	AN	Client Number	10 digit client number as follows: 6 digit client number assigned by RBC and 4 digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field).
05	21-32	12	AN	Filler	Blank
06	33-47	15	AN	Reserved	Blank
07	48-62	15	AN	Client's Sundry Information	Optional, for customer's bank statement (if applicable)
08	63-77	15	AN	Reserved	Blank
09	78-80	3	AN	Filler	Blank
10	81-86	6	AN	Reserved	Blank
11	87-149	63	AN	Filler	Blank
12	150-151	2	AN	Reserved	Blank
13	152-152	1	AN	Filler	Blank

IAT Address Information RECORD 1 – Originator information

Mandatory for payments destined to the United States. This is a customer level record and when used must immediately follow the basic payment record.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	C
03	08-10	3	AN	Transaction Code	AD1
04	11-20	10	AN	Client Number	10-digit client number as follows: 6-digit client number assigned by RBC and 4-digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field).
05	21-50	30	AN	Client Long Name	This field contains the Legal name of the Originator of the transaction. Do not abbreviate or use an acronym.
06	51-85	35	AN	Address Line 1	This field contains the physical street address of the Originator. Do not use PO Box numbers. This must be the street address. (refer to section Originator & Receiver Address Format)
07	86-120	35	AN	City, Province/State	This field contains the city and, if applicable, the state or province of the Originator. Where possible use the ISO 2 digit code for Province or State. An asterisk (“*”) will be the delimiter between the data elements, and the backslash (“\”) will be the terminator following the last data element. Example: Calgary*AL\ (refer to section Originator & Receiver Address Format)
08	121-152	32	AN	Originator's Country & Postal Code/Zip Code	Mandatory Country Code This field contains the country and postal/zip code of the Originator. Must use the 2 digits ISO Country code. An asterisk (“*”) will be the delimiter between the data elements, and the backslash (“\”) will be the terminator following the last data element. Example: CA*A1B2C3\ (refer to section Originator & Receiver Address Format)

IAT Address Information RECORD 2 – Customer/Receiver information

Mandatory for payments destined to the United States. This is a customer level record and when used must immediately follow the Address Information Record 1.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	C
03	08-10	3	AN	Transaction Code	AD2
04	11-20	10	AN	Client Number	10-digit client number as follows: 6-digit client number assigned by RBC and 4-digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field).
05	21-55	35	AN	Customer/ Recipient Address Line 1	This field contains the physical street address of the Receiver. Do not use PO Box numbers. This must be the street address. (refer to section Originator & Receiver Address Format)
06	56-90	35	AN	Customer/ Recipient City, Province/State	This field contains the city and, if applicable, the state or province of the Receiver. Where possible use the 2 digit ISO Codes for Province or State. An asterisk ("*") will be the delimiter between the data elements, and the backslash ("\") will be the terminator following the last data element. Example: New York*NY\ (refer to section Originator & Receiver Address Format)
07	91-125	35	AN	Customer/ Recipient Country & Postal Code/Zip Code	Mandatory Country Code This field contains the country and postal code of the Receiver. Must use the 2 digits ISO Country code. An asterisk ("*") will be the delimiter between the data elements, and the backslash ("\") will be the terminator following the last data element. Example: US*123456789\ (refer to section Originator & Receiver Address Format)

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
08	126-128	3	AN	USA Transaction Type Code	This field contains a three-character code that is used to identify the type of transaction. Code values are "ANN" (Annuity), "BUS" (Business/Commercial), "DEP" (Deposit), "LOA" (Loan), "MIS" (Miscellaneous), "MOR" (Mortgage), "PEN" (Pension), "RLS" (Rent/Lease), "SAL" (Salary/Payroll), "TAX" (Tax),
09	129-138	10	AN	Company Entry Description	Mandatory for USA destined payments – provide a <u>description of the purpose</u> of the entry which will be displayed to the Receiver. Examples: GAS BILL; REG.SALARY; INS.PREM; PURCHASE; etc Do not use Invoice or Reference Numbers in this Field.
10	139-152	14	AN	Filler	Blank

IAT Remittance Record

This is an optional customer level record and when used must immediately follow the Address Information 2. This record is only applicable to payments destined to the USA.

The ultimate payer (if not the Originator of the ACH PAD payment) must be identified in the Payment Related Information Field of the IAT Remittance Addenda Record when the payment is part of a "split transaction".

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	C
03	08-10	3	AN	Transaction Code	REM
04	11-20	10	AN	Client Number	10-digit client number as follows: 6-digit client number assigned by RBC and 4-digit subsidiary number assigned by the client. (Where no subsidiary exists insert zeros as the last 4 digits of this field).
05	21-100	80	AN	Payment Related Information Line 1	This field contains 80 characters of payment related information. Separate fields with asterisks * and end with a backslash \ Format for ultimate payer of funds: Johann Schmidt*Mainzer Landstrasse 201*60326 Frankfurt am Main*DE\
06	101-152	52	AN	Payment Related Information Line 2	This field contains 52 characters of payment related information. Note: For clients, who want to include a maximum of 80 for the second remittance record, must convert their file layout to the ACH Format.

Trailer Record

This trailer record is used to delimit the end of the input file and must be the last record on each file. When the file is processed, all payment records will be totaled and balanced to values on this trailer record.

Field #	Character Position	Field Size	Format	Field Name	Data Requirements
01	01-06	6	N	Record Count	Increment by 1
02	07-07	1	AN	Record Type	Z Trailer Record
03	08-10	3	AN	Transaction Code	TRL
04	11-20	10	AN	Client Number	Must be the same as the header record
05	21-26	6	N	Total Number of Credit Payment Transactions	Number of credit payment transactions (Basic Payment Record only). Right justify with leading zeros.
06	27-40	14	N	Total Value of Credit Payment Transactions	Amount of credit payment transaction (Basic Payment Record only). Right justify with leading zeros. Format \$\$\$\$\$\$\$\$\$\$\$\$ cc
07	41-46	6	N	Reserved	Zero fill
08	47-60	14	N	Reserved	Zero fill
09	61-62	2	N	Reserved	Zero fill
10	63-68	6	N	Total Number Customer Information Records	Number of Customer Information Records with Transaction Code type: RET, AD1, AD2, REM Right justify with leading zeros
11	69-80	12	AN	Filler	Blank
12	81-86	6	AN	Reserved	Blank
13	87-149	63	AN	Filler	Blank
14	150-151	2	AN	Reserved	Blank
15	152-152	1	AN	Filler	Blank

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 – USA Transaction Codes

For all payments destined to accounts held at banks in the United States, one of the following codes must be used.

Tran Code	Transaction Code Description	Tran Code	Transaction Code Description
Demand Accounts Debit Records		Savings Accounts Debit Records	
027	Automated Payment	037	Automated Payment
028	Pre-notification of Demand Debit (zero-dollar)	038	Pre-notification of Savings Debit (zero-dollar)
Demand Accounts Credit Records		Savings Accounts Credit Records	
022	Automated Deposit	032	Automated Deposit
023	Pre-notification of Demand Credit (zero-dollar)	033	Pre-notification of Savings Credit (zero-dollar)

Appendix 3 – 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 with full record length of 152 bytes
\$\$\$AA01STD0152[TEST[NL\$\$
- Production Input of full record length of 152 bytes
\$\$\$AA01STD0152[PROD[NL\$\$
- Test Input with full record length of 80 bytes
\$\$\$AA01STD0152[TEST[80\$\$
- Production Input of full record length of 80 bytes
\$\$\$AA01STD0152[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 152 bytes
\$\$\$AAPDSTD0152[TEST[NL\$\$
- Production Input of full record length of 152 bytes
\$\$\$AAPDSTD0152[PROD[NL\$\$
- Test Input with record broken down into 80 byte segments
\$\$\$AAPDSTD0152[TEST[80\$\$
- Production Input with record broken down into 80 byte segments
\$\$\$AAPDSTD0152[PROD[80\$\$

END