



Bank Account Statement BAI Format

User Guide

Cash management solutions

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Customer Service

Our Customer Service Department will be pleased to answer all your questions.
Our offices are open Monday to Friday, from 7:00 a.m. to 8:00 p.m., Eastern time (EST)

Business Central Team, transit 4176-1 | 1-844-394-4494 (toll-free) | 514-394-4494 (Montreal area)

Advantages



Practical and easy to use

- > Most tasks can be carried out automatically
- > Better financial visibility



Improves efficiency

- > Reduction of manual processes
- > Reduction of errors
- > Automatic download of account transactions into your accounting software



Affordable

- > Eliminate the costs of manual reconciliation

Introduction

The **Bank Account Statement BAI format** was developed and previously maintained by the Bank Administration Institute (BAI) and is now governed by [ASC X9 committee](#). The bank account statement BAI format is an ASCII file detailing information relating to current bank account transactions. At National Bank we offer two (2) separate files depending on the currency of the accounts.

- A BAI file grouping accounts in Canadian and/or US currency
- A BAI file grouping together accounts in other currencies (EUR, GBP)

Visible accounts are based on the list of accounts submitted during the Service implementation. The same applies to the list of agents authorized to access the Service. This information can be updated at any time with a submission of new instructions.

Accounts eligible for BAI statement

- > Current accounts in Canadian, American or other currencies
- > Accelerated transfer accounts
- > Check reconciliation account
- > Business Investment Account (BIA)

Accounts not eligible for BAI statement

- > Loan account
- > Line of credit
- > Credit card

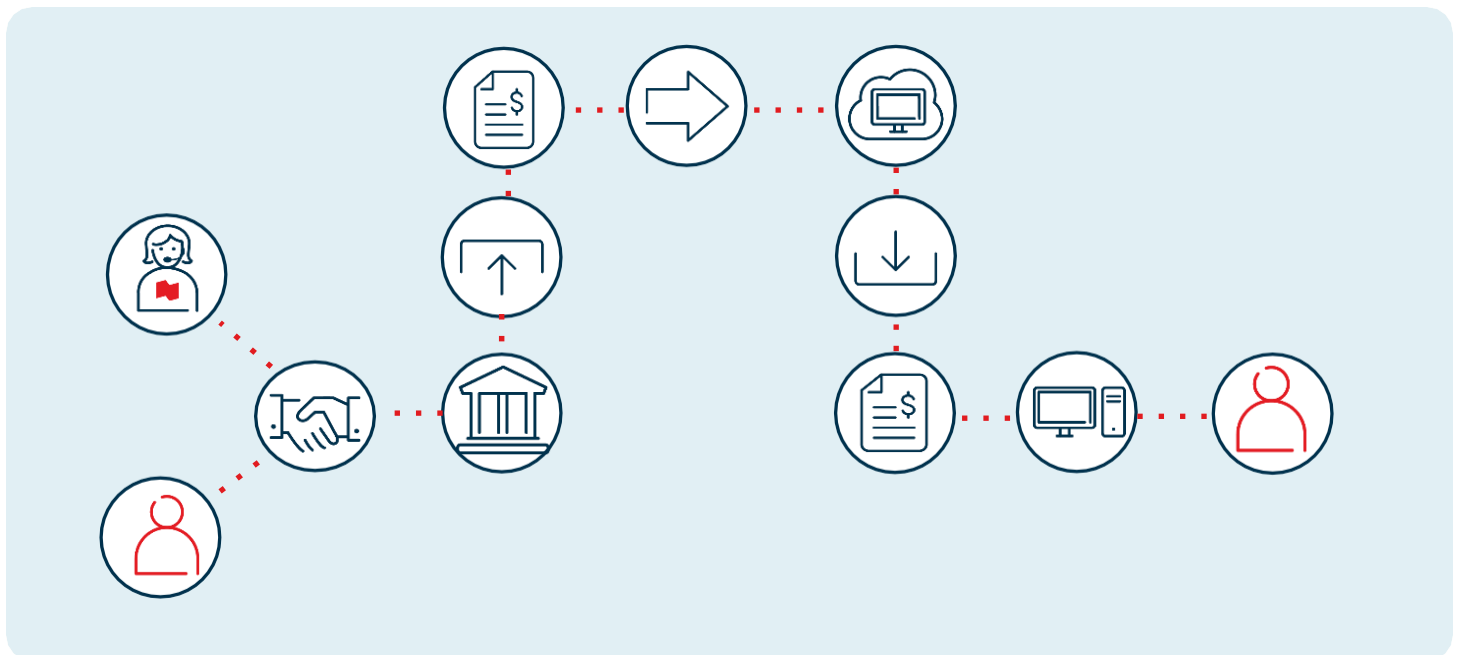
How it works

- > BAI US and / or CAD Bank Statement is available Tuesday through Saturday and contains transactions from the previous business day, as well as back-dated¹ transactions if applicable.
- > Other currencies bank statement is accessible from Monday to Friday and contains transactions of the same day.
- > You must download the statement and import it into your accounting system to reconcile them daily, as part of your cash management.

You can import the file directly from the Bank's Corporate File Transfer (CFT) platform, starting at 7:00 a.m. (EST) for CAD or US currency accounts and from 8:30 p.m. (EST) for other currency accounts. Note that no BAI file is produced on public holidays (holidays for all of Canada), however, it is produced on partial holidays (Province of Quebec or outside Quebec).

Good practice!

It is best to recover the files daily. The history of BAI files is kept for a period of 30 days. If files are needed within this period, please contact customer service to request the specific date of the file.



¹ A back-dated transaction is a transaction carried out today on the previous day's date, which affects the balance of the previous day.

① Setting up the service

Step 1: Developing the technical specifications



Allow approximately two weeks for the service to be set up.



Follow the technical specifications in Technical specifications of this document to create the ASCII file.



For record 16 only (see page 11) and depending on the requirements of your system, you must choose the value of the type of fund "Z" OR "V" (Z = date of transaction unknown and V = date equal value date of transaction therefore the date and hours after the type of fund V will be filled).



A Customer Service representative will contact you to arrange the date on which we should start generating your daily BAI account statements.

Step 2: Downloading the files

You must access National Bank's Corporate File Transfer (CFT) platform to import files. You will have access to a virtual mailbox through which you can use to download your file.

- Name of the file containing account information in CAD and or US currency: BAIXXXXX.ZZZ, the XXXXX is your customer number provided by the Bank and ZZZ is the extension (TXT, ZIP, SFE, PGP) depending on the transfer mode used.
- Name of the file containing account information for other currencies: INTBAIXXXXX.ZZZ the XXXXX is your customer number provided by the Bank and ZZZ is the extension (TXT, ZIP, SFE, PGP) depending on the transfer method used.

Below are the two transfer methods available and the requirements for each:

HTTPS

- > Website: <https://web.tfc.bnc.ca>
- > Microsoft windows
- > Zip utility required for file compression (WinZip or other – must create a zip file)
- > S-filer plug-in, will be provided by National Bank, depending on which browser is used
- > You will be able to assign user roles and access rights

SFTP with public key (SSH)

*** IT development required ***

- > Website: sftp.tfc.bnc.ca
- > Any operating system on which SFTP client can be installed
- > Data encryption (optional) PGP² encryption software
- > Knowledge of FTP protocol



Technical specifications

File section : Contains all accounts of your company

RECORD	NAME	DESCRIPTION
01	File (header)	Identifies the Bank and your company
99	File (trailer)	Contains the control totals for the entire BAI file

Group section: Contains all the account with the same currency

RECORD	NAME	DESCRIPTION
02	Group (header)	Groups accounts with the same currency as well as the effective date of transactions
98	Group (trailer)	Contains the control totals by account group

Account section : Contains all the transactions for a specific account

RECORD	NAME	DESCRIPTION
03	Account (header)	Account identifier
88 (after the 03)	Account summary	Account summary for the account identified in record 03 Each
16	Transaction detail	banking transaction carried out on your account
88	Transaction (Continuation)	If applicable, additional information concerning a transaction
49	Account (trailer)	Contains the control totals by account

Detailed layout of Standard BAI format

All fields are mandatory unless indicated otherwise. The following characters are used as delimiters.

- > Each field is delimited by a comma (",")
- > Each logical record is delimited by a slash ("/") if this one does not end with a text
- > An unused field is indicated by adjacent commas (",,") or a comma and slash (",/"). All default or unused fields must be identified.

Record 01 : File header

Identifies the sender and receiver of the BAI file and describes the file structure.

Each field is delimited by a comma (",")

Field No.	Field length	Format	Description	Required information
1	2	N	Record code	Value "01"
2	9	N	National Bank identification	Always "000000610"
3	7	A/N	Client No.	Assigned by the Bank
4	6	N	File creation date	YYMMDD
5	4	N	File creation time	24-hour format (0001 to 2400)
6	9	N	File identification number	Always "000000001"
7	1	A	Unused field	Always "2"
8	1	A	Unused field	
9	1	N	BAI format version	
10	1	A	Delimiter indicating the end of the record	

Example of record 01 :

01,000000610,GT99999,200315,0255,000000001,,,2/

Record 02 : Group header

Identifies the accounts and the effective date

Each field is delimited by a comma (“,”)

Field No.	Field Length	Format	Description	Required information
1	2	N	Record code	Value “02”
2	7	A/N	Client No.	Assigned by the Bank
3	9	N	Sender	Always “000000610”
4	1	N	Group status	Value “1”
5	6	N	Transaction date	YYMMDD
6	4	N	Transaction read time	24-hour format (0001 to 2400)
7	3	A	Currency code	Example: CAD USD EUR
8	1	N	As-of-Date Modifier	CAD and / or US accounts constant value “2” 2 = Final information from the previous day Other currencies accounts “4” 4 = Final information same day
9	1	A	Delimiter indicating the end of the record	Value “/”

Example of record 02 : 02,GT99999,000000610,1,200314,0255,CAD,2/

Example of currency account: 02,0009XXX,000000610,1,201214,1345,EUR,4/

Record 03 : Account header

There is a record 03 for each account. It indicates:

- Opening balance
- Closing balance

Each field is delimited by a comma (“,”)

Field No.	Field Length	Format	Description	Required information
1	2	N	Record code	Value “03”
			CAD or US Institution number	Always “0006”
	CAD or US account 16		Branch number	Branch where your account is held
2		N	Account number	Your account number including zeros (Ex.: 0002322)
	Other currencies 17		Other currencies account number	Other currencies account Your account number, including all zeros (Ex .: 01234567895000101)
3	3	A	Currency code	Example CAD USD EUR
4	3	N	BAI code indicating a closing balance	Value “010”
5	16	N	Opening balance	Maximum value including the sign: ±9999999999999999
6	1	A	Unused field	
7	1	A	Unused field	
8	3	N	BAI code indicating a closing balance	Value “015”
9	16	N	Closing balance	Maximum value including the sign: ±9999999999999999
10	1	A	Unused field	
11	1	A	Delimiter indicating the end of the record	Value “/”

Example of record 03 for a CAD account:

03,0006123450999940,CAD,010,+000000009260800,,,015,+000000005210800,/,/

Example of record 03 for a EUR account:

03,11110000558870001,EUR,010,+000000263945303,,,015,+000000563945303,/,/

Record 88 : Account summary

This record is a continuation of record 03 and contains the total amount of all credit transactions and the total amount of all debit transactions.

Each field is delimited by a comma (“,”)

Field No.	Field Length	Format	Description	Required information
1	2	N	Record code	Value “88”
2	3	N	BAI code indicating all credit transactions	Value “100”
3	16	N	Total credits	Maximum value including the sign: +9999999999999999
4	1	A	Unused field	
5	1	A	Unused field	
6	3	N	BAI code indicating all debit transactions	Value “400”
7	16	N	Total debits	Maximum value including the sign: +9999999999999999
8	1	A	Unused field	
9	1	A	Delimiter indicating the end of the record	Value “/”

Example of record 88 that follow record 03 :

88,100,+000000012950000,,,400,+000000017000000,/,

Record 16 : Transaction

Identifies each banking transaction carried out on this account.

Each field is delimited by a comma (“,”)

Field No.	Field lenght	Format	Description	Required information
1	2	N	Record code	Value “16”
2	3	N	BAI code	Code specifying the type of financial information
3	13	N	Transaction amount	Maximum value: 9999999999999
4	1	A	Funds availability	Value “Z” or “V”
5	6	N	Effective date ³	Date on which the transaction was carried out in your account. YYMMDD
6	4	N	Transaction read time ³	24-hour format (0001 to 2400)
7	0 à 20	A/N	Bank reference number	Examples: Transit number of the branch (if other than the one where the account is held)
8	0 a 20	A/N	Customer reference number	Examples: -Check number ⁴ -Reference number included in the original transaction by the transaction issuer -Merchant number -Smart Safe Number -Tracking number for a deposit -Wire transfer number -Name of Payer / Payee for AFT - Etc.
9	0 à 18	A/N	Text	Descriptive label of the transaction type
10	1	A	Delimiter indicating the end of the record ⁵	Value “/”

³ Fields available only with fund type V

⁴ Check numbers are 8 characters maximum and are read from right to left by the system. The system will truncate from the 9th character.

Example: check number 12345000006 will appear on the BAI as 45000006

⁵ See note that is what has changed followed by examples

Note:

Record 16 : Transaction (next)

If the record 16 includes text in field 9, **followed with record 88**, the end of the logical record **will have no** " , / " **delimiters** after the text.

If the record 16 includes text in field 9, **without record 88**, the end of the logical record **will have** " , / " delimiters after the text.

Example of record 16 with funds type V :

16,421,0000000496750,V,180913,0103,,CPE0XXXXXXXX44XX ,PMTS ENTREPRISES
88,EMBALLAGES ABC INC/

Ou

Example of record 16 with funds type Z :

16,421,0000000496750,Z,,,CPE0XXXXXXXX44XX ,PMTS ENTREPRISES/

Record 88 : Transaction (next)

If needed, this record is a continuation of preceding Record and is used to give additional information concerning a transaction. The format is exactly the same as in the preceding record.

Each field is delimited by a comma (“,”) and starts with the record code 88

Example of record 88 (next)

16,421,0000000496750,V,180913,0103,,CPE0XXXXXXXX44XX ,PMTS ENTREPRISES
88,EMBALLAGES ABC INC/

Record 49 : Account trailer

Contains the control totals for each account.

Each field is delimited by a comma (“,”)

Field No.	Field Length	Format	Description	Required information
1	2	N	Record code	Value “49”
2	16	N	Control amount for each account	Sum of: All “amount” fields in the preceding type 03, 16 and 88 records. Maximum value including the sign: <u>±9999999999999999</u>
3	10	N	Total number of records for each account	Total number of records 03, 16, 88 and 49
4	1	A	Delimiter indicating the end of the record	Value “/”

Example of record 49:

49,+000000065371600,00000000006/

Record 98 : Group trailer

Contains the control totals for group account.

Each field is delimited by a comma (“,”)

Field No.	Field length	Format	Description	Required information
1	2	N	Record code	Value “98”
2	16	N	Sum of all control totals for accounts in this group	Sum of fields 3 in all records 49. Maximum value: <u>±9999999999999999</u>
3	10	N	Total number of bank accounts in this group	Sum of all records 03 in this group
4	10	N	Total number of records in this group	Sum of all records 02, 03, 16, 49, 88 and 98
5	1	A	Delimiter indicating the end of the record	Value “/”

Example of record 98:

98,+000000102225948,00000000002,0000000012/

Record 99 : File trailer

Contains the control totals for all groups.

Each field is delimited by a comma (",")

Field No.	Field Length	Format	Description	Required information
1	2	N	Record code	Value "99"
2	16	N	Sum of all control totals for groups in this file	Sum of field 3 of all records 98 Maximum value: ±9999999999999999
3	10	N	Total number of groups in this file	Total number of records 02 in this file.
4	10	N	Total number of records in this file	Total number of records 01, 02, 03, 16, 49, 88, 98 and 99
5	1	A	Delimiter indicating the end of the record	Value "/"

Example of record 99 :

99,+000000102225948,00000000001,0000000014/



List of BAI codes

A BAI code is a standard three-digit numeric code identifying each banking transaction. BAI codes are divided into three categories: account status, transaction summary and details of each transaction. If you receive a BAI Bank Statement from different financial institutions, it may be necessary to create a correspondence table between the BAI transaction codes used by them.

Account status: These codes indicate the status of the account (e.g. closing balance). They are used only in record 03.

CODES	DESCRIPTION
010	Opening balance
015	Closing balance

Transaction summary: These codes give summary information on debit and credit operations for the account. They are used only in record 88 after record 03.

CODES	DESCRIPTION
100	Total credits
400	Total debits

Details of each transaction: These codes give the details of each individual transaction, either credit or debit, for a given account. These codes are used only in field 3 of record 16.

CODES	DESCRIPTION
101 to 399	Details of credit type codes
401 to 699	Details of debit type codes
900 to 999	Reserved codes*

*Reserved codes are for the Bank usage only.

List of BAI codes

Transaction	BAI code	Description
CREDITS	121	EDI credit
	168	Return item
	171	Loan deposit
	172	Deposit correction
	173	Bank originated deposit
	174	Deposit
	195	Money transfer
	197	Mobile or email credit
	201	Electronic funds transfer (AFT)
	206	Internal money transfer
	208	International money transfer
	224	Commission
	238	Dividends
	252	Reversal / Cancellation
	254	Correction
	255	Check return
	263	Overdraft
	277	Transfer- zero balance account
	295	ATM
	351	Investment sold
	354	Interest
	357	Adjustment
	395	Check reversal
	398	Fee - reversal
	399	Miscellaneous credit
	935	Accelerated transfers account

List of BAI codes

Transaction	BAI code	Description
DEBITS	421	EDI debit
	468	AFT returned item
	472	Check Paid - Cumulative
	475	Check paid
	477	Bank prepared debit
	481	Loan payment
	495	Money transfer
	497	Email or mobile debit
	501	Electronic funds transfer (AFT)
	506	Internal transfer
	508	International money transfer
	513	Letter of credit
	524	Commission
	526	International money market trading
	552	Reversal / Cancellation
	554	Correction
	555	Deposited item returned
	563	Overdraft
	564	Fee - overdraft
	567	Fee - return item
	577	Transfer – zero balance account
	595	ATM
	631	Adjustment
	651	Investment purchased
	654	Interest
	666	Currency and coin shipped
	695	Deposit correction
	698	Fee - charged
	699	Miscellaneous debit
	983	Accelerated transfers account