



NAB Connect Consolidated File Format Specifications

November 2015

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1 Introduction

1.1 Document Purpose

This document describes the file formats currently supported by NAB Connect and should be used as a reference when integrating NAB Connect with customer systems.

1.2 Important Notice

The NAB Connect Consolidated File Formats is the presentation of file formats for files and reporting that are currently supported by NAB Connect.

The use of the information contained in this document by You is solely at Your risk. NAB is not responsible or liable for any loss or damage You may suffer in connection with the installation or attempted development of the file formats mentioned within this document.

2 Account Information

Last updated: November 2015

2.1 Functional Description

The account information files are based on the National Account Information (NAI) electronic data transmission standards.

NAI files are comma delimited and do not contain fixed length fields. The format identifies the start and end of the file being sent, the date, the account number and the type of each transaction.

This document provides:

- The NAI file format specification
- The NAI codes and descriptions

You need this information if you want to import account information received electronically into another software application. You should also refer to the instruction for that software.

2.2 Record Formatting Rules

Each record has the following attributes:

1. All records are up to 80 characters in length including a terminating CRLF (carriage return/ line feed).
2. Each record is identified by a 2-digit Record Type Code. This code is the first field in a record.
3. Fields are free format within records.
4. Field delimiters are commas (,) or slashes (/). Slashes are only used as delimiters for the last field in a record; no delimiter is used where the last field is Text.
5. Fields not used are identified by adjacent delimiters
6. An amount and its sign are included in the same field. A sign is only used if the amount is negative and when used, trails the amount.
7. All amount fields include two decimal places but do not include the decimal point itself. Leading zeroes are not included.
8. Any control totals in the account, group and file trailer records that are negative will have a leading sign.

2.3 File Structure

1. The 'logical file' for each customer is bounded by an '01' and a '99' record. Each execution of this program will create a file for each eligible customer; where there are no relevant account records at the time of the run, the file will comprise *only* these two records. The date in the '01' record is only the creation date and does not refer in any way to the value date of the data contained.
2. Within the file, a new group (bounded by an '02' and a '98' record) is used for each Originator/As-Of Date (see below) combination in the customer's data. As many groups as required may be used. There can be many different As-Of dates within one file. If a group contains identical Originator/As-Of date combination as supplied in a previous logical file any data for the same accounts will supersede the previous logical file.
3. Within a group, a new account block (bounded by an '03' and a '49' record) is used for each different account. As many blocks as required may be used.
4. Transactions within an account block are ordered according to their transaction type, reference number, amount (descending) and sequence number.

- '88' records are generally used if the record exceeds 80 characters (including CRLF) when all fields are put to the record. In this case, a slash (/) must be put as the delimiter of the last field that will fit completely on the record, a new record started (an '88' record), and the data continued on the new record. This process may be repeated as necessary. In certain situations, an '88' record may be used when the previous line is less than 80 characters.

2.4 NAI file record types

The NAI file format specification consists of eight record types:

Record	Type
01	File header
02	Group header
03	Account identification and summary status
16	Transaction detail
49	Account trailer
88	Continuation (optional)
98	Group trailer
99	File trailer

Record type '01' – File Header

The first record in the file is the File header.

Field	Description
Record type	Always '01'.
Sender identification	Not used.
Receiver identification	Next recipient of file. For files provided by NAB Connect, this is always BNZA.
File creation date	System date, format yymmdd.
File creation time	System time, Format hhmm. Expressed in AEST using a 24-hour clock. For End-of-day (Main) files this will be '0000'.
File sequence number	Always 1.
Physical record length	Number of characters in each record. <i>Note: This includes the two-character Record type and the record delimiter (if</i>

Field	Description
	<i>any).</i>
Blocking factor	Number of physical records in a block.

Record Type '02' - Group Header

The first record in each group of records is the Group header.
It follows either the File header record (record type '01') or a Group trailer record (record type '98').

Field	Description
Record type	Always '02'.
Ultimate receiver identification	As for the Receiver identification field in the File header (record type '01') record. For files provided by NAB Connect, this is always BNZA.
Originator identification	Originator of file - for NAB, this is the bank ID, an 8-character alphanumeric field used by the NAB to identify banks. NAI uses the SWIFT code as this identifier
Group status	Always 1 (original).
As-of date	Statement date in format yymmdd.
As-of time	For the intraday file this is the time the file was last refreshed in format hhmm. For all other files it is always '0000'.

Record Type '03' - Account identifier and summary status

The first record for each account is the Account identifier and summary status record.
It follows either a Group header (record type '02') or an Account trailer (record type '49') record.

Field	Description
Record type	Always '03'.
Commercial account number	Customer commercial account number at the bank of origin. For NAB, this is your bank account number. It excludes the BSB number for NAB domestic accounts.
Currency code	SWIFT currency code.
Transaction codes	Three-digit account summary code, refer account summary codes on page 14.

Field	Description
Amounts	Amount expressed with two implied decimal places and optional trailing sign. For currencies with no decimal component, eg. Japanese Yen or Italian Lira the last two digits are always zero. If there is no trailing sign, the amount is positive.

- The Transaction code and Amount fields are repeated for each account summary code,
- The account summary codes can appear in any order, but each code appears only once.

Record type '16' - Transaction detail

A Transaction detail record follows either the Account identifier and summary status (record type '03') record or another Transaction detail (record type '16') record.

Field	Description
Record type	Always '16'.
Transaction code	Three-digit transaction detail code, refer transaction summary codes on page 15.
Amount	Amount expressed with two implied decimal places. For currencies with no decimal component, eg. Japanese Yen or Italian Lira, the last two digits are always zero. The amount is unsigned. The transaction code determines DR or CR.
Funds type	Always 0 (immediately available).
Reference number	Optional alphanumeric field defined by the originator. The contents of this field depend upon the source of the transaction. For example, it could be a cheque number for cheque transactions.
Text	Optional alphanumeric field defined by the originator. The contents of this field depend upon the source of the transaction. For example, it could provide dishonour details for a dishonoured cheque. No delimiter is used at the end of a record that has text in the last field.

Record type '49' - Account trailer

The last record for each account is the Account trailer. That is, it follows the last Transaction detail record (record type '16') for an account. If there are no transactions, it follows the Account identifier and summary status record (record type '03').

Field	Description
Record type	Always '49'.

Field	Description
Account control total A	The sum of amount fields in record types '03' (including the amounts for account summary codes 965, 966, 967, 968, 969), '16', and '88' for the account . <i>Note - Account control Total A previously excluded the amounts summary codes '500', '501', '502', and '503'.</i>
Account control total B	The sum of all amount fields in record types '03' (excluding the amounts for account summary codes 965, 966, 967, 968, 969), '16' and '88' for the account.. <i>Note - Account control Total B previously included all amounts.</i>

Note: Account control totals A and B have two implied decimal places and an optional preceding sign. If there is no preceding sign, the amount is positive.

Record type '88' – Continuation

Continuation records are used as overflow records. That is, the format of this record continues the same format as the record immediately preceding it.

It can follow any record type. In practice, it is only required for the following records:

- Account identifier and summary status (record type '03')
- Transaction detail (record type '16') records.

Field	Description
Record type	Always '88'.
Remainder of record	Continuation of record format from record immediately preceding this continuation record.

Record type '98' - Group trailer

The last record in each group of records is the Group trailer. That is, it follows the last Account trailer (record type '49') record for the group.

Field	Description
Record type	Always '98'.
Group control total A	The sum of the Account control totals A in all Account trailer (record type '49') records in this group.
Number of accounts	The number of accounts in this group. That is the number of Account identifier and summary status (record type '03') records in this group.
Group control total B	The sum of the Account control totals B in all Account trailer (record type '49') records in this group.

Note: Group control totals A and B have two implied decimal places and an optional preceding sign. If there is no preceding sign, the amount is positive.

Record type 99 - File trailer

The last record in the file is the File trailer.

Field	Description
Record type	Always '99'.
File control total A	The sum of the Group control totals A in all Group Trailer (record type '98') records in this file.
Number of groups	The number of groups in this file. That is, the number of Group header (record type '02') records in this file.
Number of records	The total number of records in this file. This includes the File header and File trailer records but excludes any device-oriented or job control records.
File control total B	The sum of the Group control totals B in all Group Trailer (record type '98') records in this file.

Note: File control totals A and B have two implied decimal places and an optional preceding sign. If there is no preceding sign, the amount is positive.

2.5 Examples

NAI File Format example

01,,BBBW,970619,1450,1,78,78/
02,BBBW,NATAAU3M,1,970321,0000/
03,111111111,AUD,**015**,10000011,**100,000,102,000,400**/
88,000,**402,000,500,400**11,**501,500**11,**502**/
88,200011,**503**,200011,**965,000,966,050**/
88,**967,075,968,006,969,017**/
49,10490203,10490055/
03,222222222,AUD,**015**,10000009,**100,000,102,000,400**/
88,125555,**402,400,500,400**09,**501,500**09,**502**/
88,200009,**503**,200009,**965,000,966,000**/
88,**967,000,968,000,969,070**/
16,475,20000,0,0000546/
16,475,35950,0,0000547/
16,475,33305,0,0000548/
16,475,36300,0,0000549/
49,10741625,10741555/
03,333333333,AUD,**015**,10000010,**100,000,102,000,400**/
88,47310,**402,200,500,400**10,**501,500**10,**502**/
88,200010,**503**,200010,**965,000,966,187**/
88,**967,000,968,000,969,031**/
16,475,15630,0,0000404/
16,475,31680,0,0000407/
49,10585088,10584870/
98,31816916,3,31816480/
99,31816916,1,25,31816480/

2.6 NAI Codes and Descriptions

Transactions are given a 3-digit NAI (BAI2 Converted) code which identifies the transaction type, and a description which is used to give more information about the transaction.

There are two types of NAI (BAI2 Converted) codes:

- Account summary codes
- Transaction detail codes

Account Summary Codes

Code	Description
001	Customer number
003	Number of segments for the account
010	Opening Balance
015	Closing balance
100	Total credits
102	Number of credit transactions
400	Total debits
402	Number of debit transactions
500	Accrued (unposted) credit interest
501	Accrued (unposted) debit interest
502	Account limit
503	Available limit
965	Effective Debit interest rate
966	Effective Credit interest rate
967	Accrued State Government Duty
968	Accrued Government Credit Tax
969	Accrued Government Debit Tax

Transaction Detail Codes

Code	DR/CR	Transaction Description	Statement Particulars
108	CR	Deposit	
175	CR	Cheques	Cash/Cheques
195	CR	Transfer credits	Transfer
238	CR	Dividend	Dividend
252	CR	Reversal Entry	Reversal
305	CR	Interest Paid	
357	CR	Credit adjustment	Adjustment
373	CR	Salary	
399	CR	Miscellaneous credits	Miscellaneous credit
475	DR	Cheques (paid)	All serial numbers
495	DR	Transfer debits	Transfer
501	DR	Automatic drawings	Company's name (abbreviated)
512	DR	Documentary L/C Drawings/Fees	Documentary L/C
552	DR	Reversal debit	
555	DR	Dishonoured cheques	Dishonoured cheques
564	DR	Loan fees	Loan fee
595	DR	FlexiPay	Merchant name
631	DR	Debit adjustment	Adjustment
654	DR	Debit Interest	Interest
699	DR	Miscellaneous debits	Miscellaneous debit
905	CR	Credit Interest	Interest
906	CR	NAB nominees credits	NAB nominees
910	CR	Cash	Cash

Code	DR/CR	Transaction Description	Statement Particulars
911	CR	Cash/cheques	Cash/cheques
915	CR	Agent Credits	Agent number advised
920	CR	Inter-bank credits	Company's name (abbreviated)
921	CR	Pension	
922	CR	EFTPOS Transaction	
923	CR	Family Allowance	
924	CR	Agent Credits	
925	CR	Bankcard credits	Bankcard
930	CR	Credit balance transfer	Balance transfer
935	CR	Credits summarised	Not applicable
936	CR	EFTPOS	Merchant name
938	CR	NAB Foreign Currency Account credit transactions	Not applicable
950	DR	Loan establishment fees	Establishment fee
951	DR	Account keeping fees	Account keeping fee
952	DR	Unused limit fees	Unused limit fee
953	DR	Security fees	Security fee
955	DR	Charges	Charge (or description)
956	DR	NAB nominee debits	NAB nominees
960	DR	Stamp duty-cheque book	Cheque book
961	DR	Stamp duty	Stamp duty
962	DR	Stamp duty-security	Security stamp duty
963	DR	EFTPOS Debit	
964	DR	Credit Card Cash Advance	
970	DR	State government tax	State government credit tax

Code	DR/CR	Transaction Description	Statement Particulars
971	DR	Federal government tax	Federal government debit tax
972	DR	Credit Card Purchase	
975	DR	Bankcard	Bankcard
980	DR	Debit balance transfers	Balance transfers
985	DR	Debits summarised	Not applicable
986	DR	Cheques summarised	Not applicable
987	DR	Non-cheques summarised	Not applicable
988	DR	NAB Foreign Currency Account debit transaction	Not applicable

3 Direct Entry (AUS)

3.1 Functional Description

Direct Entry File Format

The Direct Entry file format is the industry standard file format used when importing payment files in to your bank application. The same format is used for Direct Crediting and Direct Debiting. The file format is a fixed record length ASCII format. It uses lines of information 120 characters in length. Strings of characters within the line represent specific pieces of information. For example in a Detail Record line the characters at positions 21-30 represent the amount to be paid to or received from your customer.

Record Types

General Structure

The general structure of a Direct Entry file (or block of records) is:

- Descriptive Record (Type 0) - one only per User ID
- Detail Records (Type 1) - one or more
- File Total Record (Type 7) - one only per User ID.

Record length is 120 characters (bytes) long and separated from the next record by a carriage return/line feed (CR/LF).

Each file can only contain 1 block of records.

The lodging of multiple files on one file, (1 physical file, multiple logical files) request information on "Banner Files" is not supported by NAB Connect.

Coded Character Set

Only the BECS EBCDIC Character Bit Structure is valid, this includes the following most commonly used characters:

Numeric 0 to 9

Alphabetic Uppercase A to Z and Lowercase a to z

Special Characters

Symbol	Meaning	Symbol	Meaning
+	addition (plus) sign	-	subtraction (minus) sign or hyphen
@	at sign	:	colon
SP	space	;	semicolon
!	exclamation mark	=	equal sign

^	Circumflex	?	question mark
\$	dollar sign	.	period or decimal point
%	percentage sign	#	number sign (Pound or Hash)
&	ampersand	_	Low line (underscore)
'	apostrophe	,	comma
(left parenthesis	[left square bracket
)	right parenthesis]	right square bracket
*	asterisk	/	Solidus (right slash)

Use of unprintable characters may result in the file being rejected.

3.2 BECS File Format

Record Type 0 - Descriptive Record

Char Pos	Field Size	Field Description	User Specification
1	1	Record Type 0.	Must be '0'.
2-18	17	Blank.	Must be blank filled.
19-20	2	Reel Sequence Number.	Must be numeric commencing at 01. Right justified. Zero filled.
21-23	3	Name of User Financial Institution.	Must be an approved financial institution abbreviation. (Refer to APCA publication "BSB Numbers in Australia").
24-30	7	Blank.	Must be blank filled.
31-56	26	Name of User supplying file.	Left justified. Blank filled. BECS EBCDIC character set valid. Must not be all blanks. Should be User preferred name.
57-62	6	Number of User supplying file.	Must be User Identification Number, which is assigned by APCA and User Financial Institutions. Must be numeric. Right justified. Zero filled.
63-74	12	Description of entries on file (for example "Payroll").	BECS EBCDIC character set valid. Should accurately describe contents of file. Left justified. Blank filled if needed.

Record Type 0 - Descriptive Record (continued)

75-80	6	Date to be processed (i.e., the date transactions are released to all Financial Institutions).	Must be numeric and in the format of DDMMYY. Must be a valid date. Zero filled.
81-120	40	Blank.	Must be blank filled.
121	1		Carriage return (CR)
122	1		Line Feed (LF)

Record Type 1 – Detail Record

Char Pos	Field Size	Field Description	User Specification
1	1	Record Type 1.	Must be '1'.
2-8	7	BSB Number in format xxx-xxx.	Numeric format as xxx-xxx where x = values of 0-9 and – is a hyphen. Note: BSB must be a valid registered BSB with Australian Payment Clearing Association (APCA) and must be able to accept electronic transactions.
9-17	9	Account number to be credited/debited.	NAB accounts must be numeric, zero filled. Non-Nab accounts can be alphanumeric, right justified, blank filled. Must not be all blanks or zeros. Must not contain hyphens.
18	1	Indicator.	Must be a space or the letter 'N', 'T', 'W', 'X' or 'Y'. 'N' – for new or varied BSB number or name details. 'T' – for a drawing under a Transaction Negotiation Authority. Withholding Tax Indicators: 'W' - dividend paid to a resident of a country where a double tax agreement is in force. 'X' – dividend paid to a resident of any other country. 'Y' – interest paid to all non-residents. Where applicable, the amount of withholding tax is to appear in character positions 113-120.

19-20	2	Transaction Code.	<p>Must only be valid industry standard trancodes. Only numeric valid.</p> <p>'13' - Debit Items '50' - Credit Items '51' - Australian Govt. security interest '52' - basic family payments/additional family payment '53' - pay '54' - pension '55' - allotment '56' - dividend '57' - debenture / note interest</p>
21-30	10	Amount.	<p>Only numeric valid. Must be greater than zero. Show in cents without punctuations. Right justified. Zero filled. Unsigned.</p>
31-62	32	Title of Account to be credited/debited.	<p>BECS EBCDIC character set valid. Must not contain all blanks. Left justified. Blank filled.</p> <p>Desirable format: - Surname followed by blank - Given names with blank between each name</p>
63-80	18	<p>Lodgement Reference (Reference as submitted by the User, indicating details of the origin of the entry, eg. Payroll Number, Invoice, Unique Customer Identifier).</p> <p>NOTE: (This field is used by Financial Institutions for statement narrative).</p>	<p>BECS EBCDIC character set valid. Left justified. Blank Filled</p>
81-87	7	Trace # BSB Number in format xxx-xxx.	<p>Numeric format as xxx-xxx where x = values of 0-9 and – is a hyphen. Note: BSB must be a valid registered BSB with Australian Payment Clearing Association (APCA) and must be able to accept electronic transactions.</p>
88-96	9	Trace # Account Number.	<p>NAB accounts must numeric, zero filled. Non-Nab accounts can be alphanumeric, right justified, blank filled. Must not be all blanks or zeros.</p>

97-112	16	Name of Remitter (Name of originator of the entry. This may vary from Name of User.)	BECS EBCDIC character set valid. Must not contain all blanks. Left justified. Blank filled. NOTE: This field is used by Financial Institutions for statement narrative. When a Detail Record is used for a Financial Institution drawing under a Transaction Negotiation Authority, this field must contain the name of the Lodgement Financial Institution.
113-120	8	Amount of withholding tax.	Numeric only valid. Show in cents without punctuation. Right justified. Zero filled. Unsigned.
121	1		Carriage return (CR)
122	1		Line Feed (LF)

#Trace: A trace account is used by the beneficiary bank to return the funds to the remitter in the event that they cannot be applied to the beneficiary's account.

A Trace Record must be the User's own account or an account which the User has authority to operate and/or use as a Trace Record.

(Note: In many cases the Trace Record is also used to satisfy the requirements of the Anti-Money Laundering and Counter-Terrorism Financing Act 2006 (Cth) concerning the inclusion of Tracing Information in electronic funds transfer instructions. Please refer to Part 5 of the Act for details.)

Please Note: NAB Connect requires self-balanced files. That is the last transaction within the file must be a settling transaction to your NAB Account for the total file value.

If your file does not contain a self-balancing entry the payment will require to be manually updated to create the balancing transaction. For information on how to create this transaction within the Direct Entry file please refer to your provider of your Accounting software package.

Record Type 7 – File Total Record

Char Pos	Field Size	Field Description	User Specification
1	1	Record Type 7.	Must be '7'.
2-8	7	BSB Number.	Must be 999-999.
9-20	12	Blank.	Must be blank filled.
21-30	10	File (User) Net Total Amount	Numeric only valid. Show in cents without punctuation. Right justified. Zero filled. Unsigned. Should be all zeros in a self-balanced file*
31-40	10	File (User) Credit Total Amount	Numeric only valid. Show in cents without punctuation. Right justified. Zero filled. Unsigned. Should equal either debit total if self-balanced*, or net total in a non-balanced file <u>Please</u>
41-50	10	File (User) Debit Total	Numeric only valid. Show in cents without punctuation. Right justified. Zero filled. Unsigned. Should equal either credit total if self-balanced*, or net total in a non-balanced file.
51-74	24	Blank.	Must be blank filled.
75-80	6	File (User) count of Record Type 1.	Numeric only valid. Right justified. Zero filled.
81-120	40	Blank.	Must be blank filled.
121	1		Carriage return (CR)
122	1		Line Feed (LF)

*Please Note: NAB Connect requires a self-balanced file

3.3 Make the most of your Direct Entry File

1.1 Your statement

The following information included in your Direct Entry file will appear on your statement.

Descriptive Record 0

- Direct Entry User ID number (positions 57-62)

Detail Record 1

(record of the deposit to your account for a Direct Debit file or the withdrawal from your account for a Direct Credit file)

- Amount (positions 21-30) – the bulk total amount of the file
- Lodgement Reference (positions 63-80)
- Name of Remitter (positions 97-112)

1.2 Your customer's statement

The following information included in your Direct Entry file will appear on your customer's statement.

Descriptive Record 0

- Direct Entry User ID number (positions 57-62) or Name of User supplying file (positions 31-56).
Which of these appears depends on the statementing system of the ledger financial institution. Note that both appear on any Account Switching list provided by the ledger financial institution to their customer.

Detail Record 1

- Amount (positions 21-30)
- Lodgement Reference (positions 63-80)
- Name of remitter (positions 97-112)

If there is a particular piece of information that will help you to reconcile payments you receive from customers who use Direct Entry to pay you, talk to them about including the information in the Lodgement Reference or the Name of Remitter field.

Financial Institutions are required to ensure the name of remitter and the lodgement reference details are printed on bank account statements. You are obliged to include data in these fields for payments to beneficiaries. It is recommended that the information included in the lodgement reference be a unique payment identifier.

3.4 Example Direct Entry File

DE file format – 3 Sections

Descriptive Record 0
The file header, One line per file

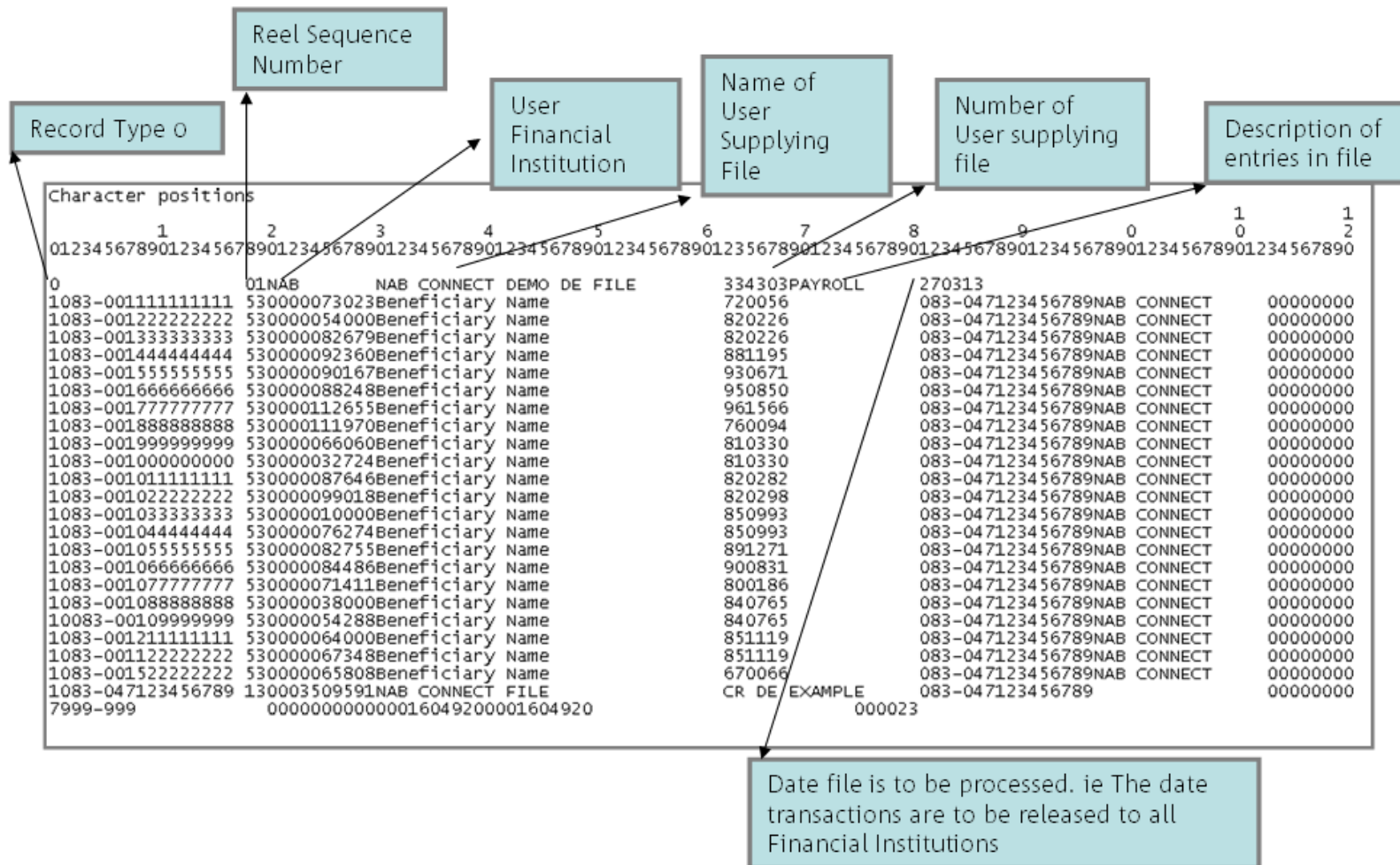
There are 120 character positions per line.
Each position relates to a particular piece of information

Character positions											
0	1	2	3	4	5	6	7	8	9	0	1
0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890											
0	01NAB	NAB CONNECT DEMO DE FILE	334303PAYROLL	270313							
1083-001111111111	530000073023	Beneficiary Name	720056	083-047123456789NAB	CONNECT	00000000					
1083-001222222222	530000054000	Beneficiary Name	820226	083-047123456789NAB	CONNECT	00000000					
1083-001333333333	530000082679	Beneficiary Name	820226	083-047123456789NAB	CONNECT	00000000					
1083-001444444444	530000092360	Beneficiary Name	881195	083-047123456789NAB	CONNECT	00000000					
1083-001555555555	530000090167	Beneficiary Name	930671	083-047123456789NAB	CONNECT	00000000					
1083-001666666666	530000088248	Beneficiary Name	950850	083-047123456789NAB	CONNECT	00000000					
1083-001777777777	530000112655	Beneficiary Name	961566	083-047123456789NAB	CONNECT	00000000					
1083-001888888888	530000111970	Beneficiary Name	760094	083-047123456789NAB	CONNECT	00000000					
1083-001999999999	530000066060	Beneficiary Name	810330	083-047123456789NAB	CONNECT	00000000					
1083-001000000000	530000032724	Beneficiary Name	810330	083-047123456789NAB	CONNECT	00000000					
1083-001011111111	530000087646	Beneficiary Name	820282	083-047123456789NAB	CONNECT	00000000					
1083-001022222222	530000099018	Beneficiary Name	820298	083-047123456789NAB	CONNECT	00000000					
1083-001033333333	530000010000	Beneficiary Name	850993	083-047123456789NAB	CONNECT	00000000					
1083-001044444444	530000076274	Beneficiary Name	850993	083-047123456789NAB	CONNECT	00000000					
1083-001055555555	530000082755	Beneficiary Name	891271	083-047123456789NAB	CONNECT	00000000					
1083-001066666666	530000084486	Beneficiary Name	900831	083-047123456789NAB	CONNECT	00000000					
1083-001077777777	530000071411	Beneficiary Name	800186	083-047123456789NAB	CONNECT	00000000					
1083-001088888888	530000038000	Beneficiary Name	840765	083-047123456789NAB	CONNECT	00000000					
10083-001099999999	530000054288	Beneficiary Name	840765	083-047123456789NAB	CONNECT	00000000					
1083-001211111111	530000064000	Beneficiary Name	851119	083-047123456789NAB	CONNECT	00000000					
1083-001122222222	530000067348	Beneficiary Name	851119	083-047123456789NAB	CONNECT	00000000					
1083-001522222222	530000065808	Beneficiary Name	670066	083-047123456789NAB	CONNECT	00000000					
1083-047123456789	13000350959	INAB CONNECT FILE	CR DE EXAMPLE	083-047123456789		00000000					
7999-999	000000000000016049200001604920					000023					

Descriptive record 1
Details individual transactions within the file.
One or many lines within the file

Descriptive record 7 . File
Total One line per file

Descriptive record 0



4 DE Returns Report (Dishonour)

Last updated: March 2012

4.1 Functional Description

The **Direct Entry Return** Report is used to communicate details of the electronic return of credit or debit items transactions.

4.2 BECS File Layout – Debits and or Credits

File Structure

The DE Return file will consist of a single header record, followed by multiple detail records, then a single file trailer record. Each record will be terminated with a Carriage Return (0x0D) and Line Feed (0x0A).

DE File Header Record

DE File Detail Record (Repeating)

DE File Trailer Record

All records are fixed width and padded as detailed in the following sections.

Record	Remarks	Description	Length
HEADER	File Header	One per File	120
DETAIL	Transaction Detail Record	One or more per file	120
TRAILER	File Trailer	One per file	120

File Layout – File Header Records

Starting Byte	Field Length	Field Description	Source / Value
1	1	Record Id	Must be '0'
2	17	Not used	Spaces
19	2	Reel Sequence Number	'01'
21	3	Mnemonic of Financial Institution initiating return e.g. NAB	Must be an APCA approved three character mnemonic.
24	7	Not used	Spaces
31	26	Mnemonic of the sending member	The three character mnemonic of the sending member only, not its full name.

Starting Byte	Field Length	Field Description	Source / Value
		E.g.: NAB	Must be an APCA approved financial institution abbreviation. Left justified, blank filled.
57	6	Direct Entry User id. As per NTIGS customer setup on Gateway	Must be numeric.
63	12	Description of entries on file (e.g. DE Returns)	Description of file. Spaces if description not available.
75	6	Date of return (the date transactions are returned to initiating financial institutions)	DDMMYY format
81	40	Not used	Spaces

File Layout – Detail Records

Starting Byte	Field Length	Field Description	Source / Value
1	1	Record Id	Must be '2'
2	7	BSB Code (including hyphen "--")	Must be positions 81-87 of the original type 1 (credit/debit) record. (trace account)
9	9	Credit/Debit Account Number	Alpha (26 letters of the alphabet), numeric, hyphens and blanks only are valid. Must not contain all blanks or all zeros. Leading zeros, which are part of an account number must be shown. (Some Financial Institutions have leading zeros in valid account numbers, i.e. 00-1234.) Edit out hyphens where account number exceeds nine characters. Right justified. Blank filled.
18	1	Return Code	Valid industry return code. Numeric. One of : 1 Invalid BSB number 2 Payment stopped 3 Account closed 4 Customer deceased 5 No account or incorrect account number 6 Refer to customer 7 [deleted] 8 Invalid User ID Number 9 Technically invalid
19	2	Transaction Code	Position 19 – 20 of the original type 1 record.
21	10	Amount	Positions 21 – 30 of the original type 1 record.
31	32	Account Name	Positions 31 – 62 of the original type 1 record.
63	18	Lodgement Reference	Positions 63 – 80 of the original type 1 record.
81	7	Trace BSB Code including hyphen	Positions 2 – 8 of the original type 1 record.
88	9	Trace Account Number	Positions 9 – 17 of the original type 1 record.
97	16	Remitter Name	Positions 97 – 112 of the original type 1 record.
113	2	Original day of processing (dd format)	Positions 75 – 76 of the original type 0 record.

Starting Byte	Field Length	Field Description	Source / Value
115	6	Original User's ID Number	Positions 57 – 62 of the original type 0 record.

File Layout –Trailer Details

Starting Byte	Field Length	Field Description	Source / Value
1	1	Record Id	Must be '7'
2	7	BSB Code	'999-999'
9	12	Not used	Spaces
21	10	Total File Net Amount	Calculated as (File Credit Amount – File Debit Amount). Right justified, zero filled, in cents. Value is unsigned. i.e. absolute value of (credits – debits)
31	10	Total File Credit Amount	Calculated as total credit amount of transaction types '50 – 99' in record id '2'; right justified and zero filled, in cents.
41	10	Total File Debit Amount	Calculated as total debit amount of transaction type '00 – 49' in record id '2'; right justified and zero filled, in cents.
51	24	Not used	Spaces
75	6	Total Record Count	Total number of records of type '2'. Right justified, zero filled.
81	40	Not used	Spaces

5 Bpay Reporting

5.1 Functional Description

NAB will provide you with a file containing a breakdown of your bulk Bpay payment received. You will receive two files containing the same information but with different formats Biller Remittance Report (BRR) and a Biller Remittance File (BRF).

Biller Remittance Report (BRR)

This report provides details of transactions in an easy to read report that is also suitable for printing.

Biller remittance File (BRF)

This is a flat ASCII file suitable for importing into your accounting software

Biller Remittance Statement (BRS)

In addition to your daily remittance reports you will be sent a monthly Biller Remittance Statement. This will act as a tax invoice for the monthly fee attached to this service and is a preformatted report suitable for printing.

5.2 Bpay Remittance Report (BRR)

Below is an example of the daily report that will be issued to advise the transactions received through the NAB's Bpay service.

This report enables easy identification of individual transactions and provides you with a full summary including transactions reference numbers to assist in reconciliation.

Sample *.brr file

BILLER CODE: 0000BILCODE AS AT: 23 MAR 2006 RUN TIME: 20:27:40
 BILLER: LONG BILLER NAME
 A/C TO CREDIT: 083-999 999999999

CUSTOMER REFERENCE NUMBER	PAYMENT INSTRUCTION TYPE	ERR CORR REASON*	PAYMENT AMOUNT	PAYMENT TYPE**	TRANSACTION ORIGINAL REF NBR	REF NBR	PAYMENT DATE	PAYMENT TIME	SETTLEMENT DATE
268094663036	PAYMENT	000	\$228.71	001	WBC2006032373759164		20060323	12:45:38	20060323
466092468148	PAYMENT	000	\$497.27	001	WBC2006032344314364		20060323	21:25:20	20060323
668079302272	PAYMENT	000	\$359.11	001	NAB200603232321111777		20060322	22:11:17	20060323
668079303095	PAYMENT	000	\$784.44	201	CBA200603220030014269		20060322	20:16:32	20060323
668079306929	PAYMENT	000	\$392.70	001	WBC2006032340211234		20060323	21:23:49	20060323
668079308852	PAYMENT	000	\$404.66	201	NAB200603231081055475		20060323	08:10:54	20060323
668079309127	PAYMENT	000	\$366.23	001	MEB20060310172012655		20060310	14:03:00	20060323
668079215540	PAYMENT	000	\$688.79	101	ANZ20060323419429		20060323	03:45:04	20060323
466093064016	PAYMENT	000	\$322.89	001	NAB200603232121822838		20060323	12:18:28	20060323
466093093536	ERROR	004	\$267.28DB	001	0732006032300009747		20060323	15:08:31	20060323
	CORRECTION				07320060313000031648				
466094683295	PAYMENT	000	\$392.09	101	WBC2006032306031054		20060323	07:48:27	20060323
466094685143	PAYMENT	000	\$610.37	001	MBL2006032301032105		20060323	10:26:20	20060323
466094697544	PAYMENT	000	\$399.92	001	WBC2006032324282224		20060323	14:44:19	20060323
466013390593	PAYMENT	000	\$135.34	001	MEB200603225837017126		20060322	20:36:00	20060322

TOTALS:

 NUMBER OF PAYMENTS 13
 AMOUNT OF PAYMENTS \$4,497.43
 NUMBER OF ERROR CORRECTIONS 1
 AMOUNT OF ERROR CORRECTIONS \$267.28DB
 NUMBER OF REVERSALS 0
 AMOUNT OF REVERSALS \$0.00
 SETTLEMENT AMOUNT \$4,230.15

* ERR CORRECTION REASON CODE:
 000 - NOT AN ERROR CORRECTION
 001 - PAYER PAID TWICE
 002 - PAYER PAID WRONG ACCOUNT
 003 - PAYER PAID WRONG BILLER
 004 - OVERPAYMENT
 005 - PAYER DID NOT AUTHORISE PAYMENT
 006 - VALID VISA CHARGEBACK REASON CODE

**PAYMENT TYPE:
 001 - DEBIT PAYMENT
 101 - VISA CARD
 201 - MASTERCARD
 301 - OTHER

5.3 Bpay Remittance File (BRF)

File Layout –Header Record

Description	Type (Length)	Values /Notes
Record Type	9(2)	A code '00' indicating the trailer record.
Biller Code	9(10)	The CIP assigned number denoting the Biller, 9 digits followed by a Luhn modulus 10 Check Digit (calculated on the preceding 9 digits).
Biller Short Name	X(20)	The short description for the Biller.
Biller Credit BSB	9(6)	The BSB of the account to be credited for the value of transactions in this file.
Biller Credit Account	9(9)	The account to be credited for the value of transactions in this file.
File Creation Date	9(8)	Format YYYYMMDD. The local date of file creation.
File Creation Time	9(6)	Format HHMMSS. The local time of file creation.
Filler	9(15)	9(158)
TOTAL LENGTH	(219)	

File Layout –Detail Record

Description	Type (Length)	Values /Notes
Record Type	9(2)	A code '50' indicating the header record.
Biller Code	9(10)	The CIP assigned number denoting the Biller, 9 digits followed by a Luhn modulus 10 Check Digit (calculated on the preceding 9 digits).
Customer Reference Number	9(20)	The number by which the Biller identifies the account that is being paid. The last digit is assumed to be a Check Digit. Left Justified, space filled.
Payment Instruction Type	9(2)	A code indicating the type of instruction, 05 = Payment, 15 = Error Correction, 25 = Reversal.
Transaction Reference	X(21)	A unique reference number generated by the Payer Institution. It is structured so that the first three characters are the Payer Code, the next

Description	Type (Length)	Values /Notes
Number		eight are YYYYMMDD (the date the payment was made), and the next set of characters are the reference number provided to the Payer on completion of a payment. The use of any remaining space in the field is at the discretion of the Payer Institution.
Original Reference Number	X(21)	The unique reference code generated by the Payer Institution for the original Payment instruction (e.g. this field indicates the unique Reference Number of a BPAY instruction to be reversed out). Where an error reference is relevant (i.e. Error Corrections, Reversals and any form of re-submission) this is a mandatory field, but the CIP validation will not attempt to match this reference number with the original transaction.
Error Correction Reason	9(3)	For Error Correction Transactions, a code indicating the reason for generating the Error Correction. Code values to be advised. Zero if not an Error Correction.
Amount	9(12)	The amount of the Payment/Error Correction, 2 digits of cents implied, (field length aligned with Visa monetary format).
Payment Date	9(8)	The AEST date that the Payment or Error Correction was accepted by the Payer Institution, in YYYYMMDD format.
Payment Time	9(6)	The AEST time that the Payment or Error Correction was accepted by the Payer Institution in HHMMSS format.
Settlement Date	9(8)	The date on which the Payer Institution expects the Payment to be entered into BPAY Settlement, in YYYYMMDD format.
Filler	X(106)	
TOTAL LENGTH	(219)	

File Layout –Trailer Record

Description	Type (Length)	Values /Notes
Record Type	9(2)	A code '99' indicating the trailer record.
Biller Code	9(10)	The CIP assigned number denoting the Biller, 9 digits followed by a Luhn modulus 10 Check Digit (calculated on the preceding 9 digits).
Number of Payments	S9(9)	The number of BPAY instructions in the file.
Amount of Payments	S9(15)	The amount of BPAY instructions in the file.

Description	Type (Length)	Values /Notes
Number of Error Corrections	S9(9)	The number of Error Correction Instructions in the file.
Amount of Error Corrections	S9(15)	The amount of Error Correction Instructions in the file.
Number of Reversals	S9(9)	The number of Reversals in the file.
Amount of Reversals	S9(15)	The amount of Reversals in the file.
Settlement Amount	S9(15)	Net amount of Payments - Error Corrections - Reversals.
Filler	S9(120)	
TOTAL LENGTH	(219)	

The trailer record amount values in the output BRF files can be interpreted as a numeric field followed by a positive or negative sign. Remember that the amount fields have two (2) digit cents implied. 156.78 could be viewed as 00000000015678 on the detail record. However, the amount field in the trailer record is signed hence it can be “interpreted as 00000000015678+, for credit amounts and 00000000015678-, for debit amounts.

The last two (2) characters in the fields (the number followed by the + or - sign) can then be viewed as one (1) character thus:

“0+” = “{” “0-” = “}”
 “1+” = “A” “1-” = “J”
 “2+” = “B” “2-” = “K”
 “3+” = “C” “3-” = “L”
 “4+” = “D” “4-” = “M”
 “5+” = “E” “5-” = “N”
 “6+” = “F” “6-” = “O”
 “7+” = “G” “7-” = “P”
 “8+” = “H” “8-” = “Q”
 “9+” = “I” “9-” = “R”

This means that “0000000001567H” is equal to 00000000015678+, and because of the implied two (2) digit cents, is equal to 156.78 credit.

On the other hand, “0000000001567Q” is equal to 00000000015678-, and because of the implied two (2) digit cents, is equal to 156.78 debit.

The signed field is necessary in the trailer record because the Settlement Amount field may be positive or negative (credit or debit). Remember,
 Settlement Amount = Payment amount - Error correction amount – Reversal amount.

5.4 Bpay Remittance Statement (BRS)

Below is an example of the monthly Biller Remittance Statement.

Sample *.brs file

23-10-2008 PAGE 1
21:34:38

TAX INVOICE

SUPPLIER: NATIONAL AUSTRALIA BANK LIMITED
ABN 12 004 044 937

RECIPIENT: LONG BILLER NAME
BPAY BILLER CODE: 0000BILCDE
ADDRESS LINE ONE
ADDRESS LINE TWO
CITY STATE PCDE

DESCRIPTION	QTY	NET FEE	PLUS GST	GROSS FEE
NATIONAL BPAY CHARGE	20	\$5.91	\$0.59	\$6.50
STATEMENT TOTAL	20	\$5.91	\$0.59	\$6.50

AN AMOUNT OF \$6.50 HAS BEEN DEBITED FROM YOUR ACCOUNT 083999-999999999

END OF REPORT

5.5 Examples

Attached are examples of each format



Example BRF file.txt



Example BRR file.txt



Example BRS file.txt

6 BPAY Batch

6.1 Functional Description

The BPAY Batch file can be sent to NAB until 5.00pm (AEST) at the latest for same day processing. Files received after this cut-off time may be rejected and will need to be resubmitted the following Banking Business Day with the Processing Date changed reflect that day's details.

6.2 BPAY Batch file format

This file has fixed length record of 144 bytes.

The file extension is .bpb

Header Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	1
BPAY Batch Customer ID	Char	2-17	16	Allocated and advised by NAB. Required for NAB internal processing. This number remains constant for all files sent to NAB. Left justified with trailing spaces.
Customer Short Name	Char	18-37	20	Customer Short Name
Processing Date	Num	38-45	8	Current date (CCYYMMDD) – please note: files with processing dates up to 2 business days prior to the current date will be processed.
Rest of record	Char	46-144	99	Spaces

Detail Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	2
Biller Code	Num	2-11	10	Leading Zeros required.
Payment Account BSB	Num	12-17	6	BSB of Account Number of Payer. This Field will always contain BPAY Batch customer BSB.
Payment Account Number	Num	18-26	9	Account Number of Payer. This field will always contain BPAY Batch customer NAB Account Number
Customer Reference Number	Char	27-46	20	Customer Reference Number. Left Justified with trailing spaces.
Amount	Num	47-59	13	The amount of the payment, 2 digits of cents

Description	Field Format	Position	Length	Values /Notes
				implied. Should have leading zeros.
Lodgement Reference #1	Char	60-69	10	Additional information which may be required by the customer. This information will not be stored in NAB system but will be returned to file going back to customer for their own internal use.
Lodgement Reference #2	Char	70-89	20	As above.
Lodgement Reference #3	Char	90-139	50	As Above.
Rest of record	Char	140-144	5	Spaces

Trailer Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	9
Total Number of Payments	Num	2-11	10	Total number of payments in the file, i.e. Number of Details records. Should have leading zeros.
Total Value of Payments	Num	12-24	13	Total value of the file, two implied decimal places. Should have leading zeros
Rest of record	Char	25-144	120	Spaces

6.3 BPAY Batch Results file format

This file has fixed length record of 219 bytes.

The naming format of the Results File is YYDDNNN.bpb, where 'YYDD' is the Julian Date. 'NNN' is a running number, beginning at 001, and increasing to 002, 003, etc should your company send additional files on a particular day.

The .bpb file extension indicates that the file is a BPAY Batch results file.

Header Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	1
BPAY Batch Customer ID	Char	2-17	16	Allocated and advised by NAB. Required for NAB internal processing. This number remains constant for all files sent to NAB. Left justified with trailing spaces.
Customer Short Name	Char	18-37	20	Customer Short Name
Processing Date	Num	38-45	8	Current date which is the same as file transmission date (CCYYMMDD)
Rest of record	Char	46-219	174	Spaces

Detail Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	2
Biller Code	Num	2-11	10	Leading Zeros required.
Payment Account BSB	Num	12-17	6	BSB of Account Number of Payer. This Field will always contain BPAY Batch customer BSB.
Payment Account Number	Num	18-26	9	Account Number of Payer. This field will always contain BPAY Batch customer NAB Account Number
Customer Reference Number	Char	27-46	20	Customer Reference Number. Left Justified with trailing spaces.
Amount	Num	47-59	13	The amount of the payment, 2 digits of cents implied. Leading zeros.
Lodgement Reference #1	Char	60-69	10	Additional information which may be required by the customer. This information will not be stored in NAB system but will be returned to file going back to customer for their own internal use.

Description	Field Format	Position	Length	Values /Notes
Lodgement Reference #2	Char	70-89	20	As above.
Lodgement Reference #3	Char	90-139	50	As Above.
Return Code	Char	140-143	4	0000 = successful 1001 = invalid Biller Code 1002 = payment method not available to Biller 1003 = invalid CRN 1005 = payment amount less than acceptable Biller minimum 1006 = payment amount more than acceptable Biller maximum 1010 = unspecified error 1012 = invalid CRN length 2001 = invalid account
Return Code Description	Char	144-193	50	Description of return code
Transaction Reference Number	Char	194-241	21	Transaction Reference Number generated by NAB. This field will have the following format: NABCCYMMDDPHHMSSTTT Where: CCYMMDD = process date P = payment method, set to 5 for BPAY Batch HHMSSTTT = transaction timestamp
Rest of record	Char	215-219	5	Spaces

Trailer Record

Description	Field Format	Position	Length	Values /Notes
Record Type	Char	1	1	9
Total Number of Successfully Processed Payments	Num	2-11	10	Total number of successfully processed payments in the file. Leading zeros.
Total Value of Successfully Processed Payments	Num	12-24	13	Total value of successfully processed payments in the file, two implied decimal places. Leading zeros
Total Number of Declined Payments	Num	25-34	10	Total number of declined payments in the file. Leading zeros.
Total Value of Declined Payments	Num	35-47	13	Total value of declined payments in the file, two implied decimal places. Leading zeros
Total Number	Num	48-57	10	Total number of payments in the file, i.e.

Description	Field Format	Position	Length	Values /Notes
of Transactions in the File				Number of Details records. Equal to number of successful + declined payments. Leading zeros.
Total File Value	Num	58-70	13	Total value of the file, two implied decimal places. Equal to value of successful + declined payment. Leading zeros
Rest of record	Char	71-219	149	Spaces

7 Merchant reporting

7.1 Functional Description

NAB will provide you with a daily file of your EFTPOS transactions for NAB EFTPOS (EB165) or Multi Currency facilities (FX165)

This file will provide a breakdown of individual transactions which comprise the bulk merchant credit received to your account.

7.2 NAB EFTPOS (EB165) File format

The ASCII EFTPOS Settlement file contains the following format:

File Header Record

Col	Field Name	Length	Type
1	Record Type (H)	1	CHAR
2	Organisation Name	30	CHAR
32	Processing Date	8	NUM

Transaction Detail Record

Col	Field Name	Length	Type
1	Record Type (D)	1	CHAR
2	Posting Date	8	NUM
10	Group Number	5	NUM
15	Head Office Number	5	NUM
20	Merchant Number	15	CHAR
35	Terminal Number	8	CHAR
43	Message Type	4	CHAR
47	Card Number	19	CHAR
66	Process Code	6	NUM
72	Transaction Amount	12	NUM

84	STAN (future use)	6	CHAR
90	Transaction Time	6	NUM
96	Transaction Date	8	NUM
104	RRN	12	CHAR
116	Merchant Name	20	CHAR
136	Merchant Address	20	CHAR
156	Cash Amount	12	NUM

Terminal Summary Record

This record will contain transaction statistics for the given NAB Terminal within the current posting date.

Col	Field Name	Length	Type
1	Record Type (A)	1	CHAR
2	Posting Date	8	NUM
10	Group Number	5	NUM
15	Head Office Number	5	NUM
20	Merchant Number	15	CHAR
35	Terminal Number	8	CHAR
43	Number of DR/CR Cashout Transactions	10	NUM
53	Amount of DR/CR Cashout Transactions	16	NUM
69	Number of DR Purchase Transactions	10	NUM
79	Amount of DR Purchase Transactions	16	NUM
95	Number of DR Refund Transactions	10	NUM
105	Amount of DR Refund Transactions	16	NUM
121	Number of DR Purch/Cash Transactions	10	NUM
131	Net Number of DR Transactions	10	NUM

141	Net Amount of DR Transactions	X+16	NUM
158	Number of CR Purchase Transactions	10	NUM
168	Amount of CR Purchase Transactions	16	NUM
184	Number of CR Refund Transactions	10	NUM
194	Amount of CR Refund Transactions	16	NUM
210	Net Number of CR Transactions	10	NUM
220	Net Amount of CR Transactions	X+16	NUM
237	Total Number of Transactions	10	NUM
247	Total Amount of Transactions	X+16	NUM

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

Merchant Summary Record

This record will contain transaction statistics for the given NAB Merchant over all the merchant's terminals within the current posting date.

Col	Field Name	Length	Type
1	Record Type (B)	1	CHAR
2	Posting Date	8	NUM
10	Group Number	5	NUM
15	Head Office Number	5	NUM
20	Merchant Number	15	CHAR
35	Number of Terminals	3	NUM
38	Number of DR/CR Cashout Transactions	10	NUM
48	Amount of DR/CR Cashout Transactions	16	NUM
64	Number of DR Purchase Transactions	10	NUM
74	Amount of DR Purchase Transactions	16	NUM

90	Number of DR Refund Transactions	10	NUM
100	Amount of DR Refund Transactions	16	NUM
116	Number of DR Purch/Cash Transactions	10	NUM
126	Net Number of DR Transactions	10	NUM
136	Net Amount of DR Transactions	X+16	NUM
153	Number of CR Purchase Transactions	10	NUM
163	Amount of CR Purchase Transactions	16	NUM
179	Number of CR Refund Transactions	10	NUM
189	Amount of CR Refund Transactions	16	NUM
205	Net Number of CR Transactions	10	NUM
215	Net Amount of CR Transactions	X+16	NUM
232	Total Number of Transactions	10	NUM
242	Total Amount of Transactions	X+16	NUM

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

Business Unit Summary Record

This record will contain transaction statistics for the given NAB Business Units over all a particular Units' merchants within the current posting date.

Col	Field Name	Length	Type
1	Record Type (C)	1	CHAR
2	Posting Date	8	NUM
10	Group Number	5	NUM
15	Head Office Number	5	NUM
20	Number of Merchants	3	NUM
23	Number of DR/CR Cashout Transactions	10	NUM

33	Amount of DR/CR Cashout Transactions	16	NUM
49	Number of DR Purchase Transactions	10	NUM
59	Amount of DR Purchase Transactions	16	NUM
75	Number of DR Refund Transactions	10	NUM
85	Amount of DR Refund Transactions	16	NUM
101	Number of DR Purch/Cash Transactions	10	NUM
111	Net Number of DR Transactions	10	NUM
121	Net Amount of DR Transactions	X+16	NUM
138	Number of CR Purchase Transactions	10	NUM
148	Amount of CR Purchase Transactions	16	NUM
164	Number of CR Refund Transactions	10	NUM
174	Amount of CR Refund Transactions	16	NUM
190	Net Number of CR Transactions	10	NUM
200	Net Amount of CR Transactions	X+16	NUM
217	Total Number of Transactions	10	NUM
227	Total Amount of Transactions	X+16	NUM

File Trailer Record

Col	Field Name	Length	Type
1	Record Type (T)	1	CHAR
2	Organisation Name	30	CHAR
32	Transaction Quantity	10	NUM

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

7.3 NAB EFTPOS (FX165) File format

The ASCII EFTPOS Settlement file contains the following format:

Customer File Header Record

Offset	Field Name	Length	Type
0	Record Type (H)	1	CHAR
1	Organisation Name (<i>Cust# Name</i>)	30	CHAR
31	Processing Date	8	NUM

Merchant Information Record

Offset	Field Name	Length	Type
0	Record Type (I)	1	CHAR
1	Organisation Name (<i>Merchant Name</i>)	30	CHAR
31	Processing Date	8	NUM
39	Merchant ID	9	CHAR

Transaction Detail Record

Offset	Field Name	Length	Type
0	Record Type (D)	1	CHAR
1	Transaction Date	8	NUM
9	zeroes	5	NUM
14	zeroes	5	NUM
19	Merchant Number (<i>EB Number</i>)	15	CHAR
34	Terminal Number	8	CHAR
42	spaces	4	CHAR
46	Card Number	19	CHAR
65	zeroes	6	NUM

71	Transaction Amount (<i>Transaction Currency</i>)	12	NUM
83	spaces	6	CHAR
89	Transaction Time	6	NUM
95	Transaction Date	8	NUM
103	RRN	12	CHAR
115	Merchant Name (<i>Currently Customer name, change to store DBA</i>)	20	CHAR
135	spaces	20	CHAR
155	Zeroes	12	NUM
167	Transaction Currency	3	CHAR
170	Transaction Currency Exponent	1	CHAR
171	Multi- Currency Process Code (00-sale; 24-Refund)	2	CHAR
173	Merchant Store Number	9	NUM
182	Settlement Date	8	CHAR
190	AUD Equivalent (will be Zeroes for non DCC)	12	NUM

Currency (Terminal) Summary Record

This record will contain transaction statistics for the given NAB Terminal within the current posting date.

Offset	Field Name	Length	Type
0	Record Type (A)	1	CHAR
1	Settlement Date	8	NUM
9	Zeroes	5	NUM
14	Zeroes	5	NUM
19	Merchant Number	15	CHAR
34	Spaces	8	CHAR
42	Zeroes	10	NUM

52	Zeroes	16	NUM
68	Zeroes	10	NUM
78	Zeroes	16	NUM
94	Zeroes	10	NUM
104	Zeroes	16	NUM
120	Zeroes	10	NUM
130	Zeroes	10	NUM
140	Space (1) + zeroes (16)	X+16	NUM
157	Number of CR Purchase Transactions	10	NUM
167	Amount of CR Purchase Transactions	16	NUM
183	Number of CR Refund Transactions	10	NUM
193	Amount of CR Refund Transactions	16	NUM
209	Net Number of CR Transactions	10	NUM
219	Net Amount of CR Transactions	X+16	NUM
236	Total Number of Transactions	10	NUM
246	Total Amount of Transactions	X+16	NUM
263	spaces	30	CHAR
293	Settlement Currency	3	CHAR
296	Settlement Currency Exponent	1	CHAR
297	Settlement Amount	16	NUM
313	Debit Credit Indicator	1	CHAR
314	Transaction Currency Exponent	1	CHAR
315	Transaction Currency	3	CHAR

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

Store (Merchant) Summary Record

This record will contain transaction statistics for the given NAB Merchant over all the merchant's terminals within the current posting date.

Offset	Field Name	Length	Type
0	Record Type (B)	1	CHAR
1	Settlement Date	8	NUM
9	Zeroes	5	NUM
14	Zeroes	5	NUM
19	Merchant Number	15	CHAR
34	Zeroes	3	NUM
37	Zeroes	10	NUM
47	Zeroes	16	NUM
63	Zeroes	10	NUM
73	Zeroes	16	NUM
89	Zeroes	10	NUM
99	Zeroes	16	NUM
115	Zeroes	10	NUM
125	Zeroes	10	NUM
135	Space (1) + zeroes (16)	X+16	NUM
152	Zeroes	10	NUM
162	Zeroes	16	NUM
178	Zeroes	10	NUM
188	Zeroes	16	NUM
204	Zeroes	10	NUM
214	Space (1) + zeroes (16)	X+16	NUM

231	Total Number of Transactions	10	NUM
241	Space (1) + zeroes (16)	X+16	NUM
258	Space	30	CHAR
288	Settlement Currency	3	CHAR
291	Settlement Currency Exponent	1	CHAR
292	Settlement Amount	16	NUM
308	Debit Credit Indicator	1	CHAR
309	Merchant Store Number	9	NUM

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

Merchant ID (Business Unit) Summary Record

This record will contain transaction statistics for the given NAB Business Units over all a particular Units' merchants within the current posting date.

Offset	Field Name	Length	Type
0	Record Type (C)	1	CHAR
1	Settlement Date	8	NUM
9	Zeroes	5	NUM
14	Zeroes	5	NUM
19	Zeroes	3	NUM
22	Zeroes	10	NUM
32	Zeroes	16	NUM
48	Zeroes	10	NUM
58	Zeroes	16	NUM
74	Zeroes	10	NUM
84	Zeroes	16	NUM

100	Zeroes	10	NUM
110	Zeroes	10	NUM
120	Spaces (1) + zeroes (16)	X+16	NUM
137	Zeroes	10	NUM
147	Zeroes	16	NUM
163	Zeroes	10	NUM
173	Zeroes	16	NUM
189	Zeroes	10	NUM
199	Spaces (1) + zeroes (16)	X+16	NUM
216	Total Number of Transactions	10	NUM
226	Spaces (1) + zeroes (16)	X+16	NUM
243	Spaces	30	CHAR
273	Settlement Currency	3	CHAR
276	Settlement Currency Exponent	1	CHAR
277	Settlement Amount	16	NUM
293	Debit Credit Indicator	1	CHAR
294	Merchant ID	9	CHAR

File Trailer Record

Offset	Field Name	Length	Type
0	Record Type (T)	1	CHAR
1	Organisation Name	30	CHAR
31	Transaction Quantity	10	NUM

Note: The 'X' portion will contain a one byte indication as to the sign of the total amount. A 'D' for debit (funds due to the bank) or a 'C' for credit (funds due to the merchant).

8 International Payment File

8.1 Functional Description

International Payment File Format

Some payroll and accounting systems can be modified to create files that can be imported into NAB Connect. To import an International Funds Transfer file into NAB Connect, it must have the correct file format.

International Payment file format Record Types

- Each import file can be up to 5MB in size
- Each payment can have one or more payment legs as long as it satisfies the leg validation requirements.
- Fields are fixed length.
All records are delimited by CRLF (Hex 0D0A).
- Where a field specification indicates 'non case sensitive' it means that this field can have text in upper or lower case eg. FILE or File or file would all be acceptable.

8.2 General Structure

01 Header Record	One per file
02 Payment Header	One per Payment
03 Payment Record	One per payment
55 Payment Detail Record – Payment leg	One or more per payment
79 Payment trailer record	One per payment
89 Payment Trailer	One per payment
99 File Trailer Record	One per file

8.3 Character Set

Allowable Characters	Example
Letters	a, b, cA, B, C
Digits	1, 2, 3
Space	

Parentheses	(and)
Plus Sign	+
Minus Sign	-
Slash	/
Apostrophe	'
Question mark	?
Full Stop	.
Comma	,

8.4 Currency List

Currency description	Currency Code	Decimal places required
Australian Dollars	AUD	2
Bahraini Dinars	BHD	3
Bangladesh Taka	BDT	2
Canadian Dollars	CAD	2
CFP Francs	XPF	2
Czech Koruna	CZK	2
Danish Kroner	DKK	2
Euro	EUR	2
Fijian Dollars	FJD	2
Hong Kong Dollars	HKD	2
Hungarian Forint	HUF	2
Indian Rupees	INR	2
Israeli Shekel	ILS	2
Indonesian Rupiah	IDR	0

Japanese Yen	JPY	0
Jordanian Dinars	JOD	3
Kenyan Shillings	KES	2
Kuwaiti Dinars	KWD	3
Mexican Peso	MXN	2
Norwegian Kroner	NOK	2
New Zealand Dollars	NZD	2
Omani Rial	OMR	3
Pakistani Rupees	PKR	2
Papua New Guinea Kina	PGK	2
Philippine Pesos	PHP	2
Polish Zloty	PLN	2
Saudi Arabian Riyals	SAR	2
Singapore Dollars	SGD	2
Solomon Islands Dollars	SBD	2
South African Rand	ZAR	2
Sri Lankan Rupees	LKR	2
Swedish Kronor	SEK	2
Swiss Francs	CHF	2
Thai Baht	THB	2
United Arab Emirates Dirham	AED	2
United Kingdom Pound Sterling	GBP	2
United States Dollars	USD	2
Vanavatu Vatu	VUV	2

Western Samoa Tala	WST	2
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The Tables below detail the specification for each record. The last column 'If invalid' indicates how an error in the record will be processed by NAB Connect:

- **Reject** - indicates that the error is fatal and the file will not be imported. Such errors need to be corrected in the 'source' application or mainframe system and the file re-imported.
- **Payment Requires repair** - indicates that the file will be imported with the invalid fields. Such errors should be rectified by the user from either the 'source' system or from within NAB Connect.
- **Not Validated** – Data is not required in these fields, if populated data will be used however in event that data isn't populated NAB Connect will impose default value.
- **Not Used** – relates to legacy file format
-

8.5 International Payment file

Header Record

Char Pos	Field Size	Field Description	User Specification	If invalid
1-2	2	Indicator	Must be '01'.	Reject
3-22	20	File name	Must be left blank	Reject
23-25	3	Number of messages (payments)	Must be numeric commencing at 001. Padded/filled with leading zero/s.	Reject

Payment Header

Char Pos	Field Size	Field Description	User Specification	If invalid
1-2	2	Indicator	Must be '02'.	Reject
3-5	3	Message type	Must be 'IFT'	Reject
6-9	4	Number of payments	Must be '0001'.	Reject

Payment Record

Char Pos	Field Size	Field Description	User Specification	If invalid
1-2	2	Indicator	Must be '03'.	Reject

3-5	3	Pay currency code		Reject
6-20	15	Payment amount	Mandatory for payments containing multiple settlement legs. For single leg payments this field must be populated where the payment leg amount is populated and must contain same value. Numeric containing decimal point Padded/filled with leading zero/s and must be in the value range of 0.01 and 999,999,999,999. If decimal point is in wrong place If non numeric	Reject Reject Reject
21-28	8	Value Date	Mandatory must be a business day in the format DDMMCCYY. For all rates source with exception of Real Time Rate the value date must be between today and (today plus 3 business days). Where payment contains a real time rate then the value day must be a business day and be: - today for non efx clients. - between today and (today plus two business days). For efx clients	Reject Payment Requires Repair Payment requires Repair
29-44	16	Your reference	Optional and can only contain characters in character set	Payment requires Repair
45-79	35	Beneficiary Name	Mandatory and characters in character set	Payment requires Repair
80-114	35	Beneficiary address 1	Mandatory and can only contain characters in character set	Payment requires Repair
115-149	35	Beneficiary Address 2	Can only contain characters in character set	Payment requires Repair
150-184	35	Beneficiary Address 3	Mandatory and must contain the country (ISO code) of the beneficiary in capitals A-Z	Payment requires Repair
185-218	34	Beneficiary Account number	Mandatory and can only contain characters in character set	Payment requires Repair
219-253	35	Beneficiary Bank Name	To contain 'Beneficiary BIC Address' (i.e. Bank SWIFT Code) AND 'Beneficiary Bank Country Code' OR 'Beneficiary Bank Name' AND	Payment requires Repair

			'Beneficiary Bank Country Code'	
254-288	35	Beneficiary Bank Address 1	Can only characters in character set Cannot be populated if 'Beneficiary BIC Address (i.e. Bank SWIFT Code) is populated as part of Beneficiary Bank Name field. Can only contain characters in character set	Payment requires Repair
289-323	35	Beneficiary Bank Address 2	Cannot be populated if 'Beneficiary BIC Address (i.e. Bank SWIFT Code) is populated as part of Beneficiary Bank Name field. Can only contain characters in character set	Payment requires Repair
324-358	35	Beneficiary Bank Address 3	Cannot be populated if 'Beneficiary BIC Address (i.e. Bank SWIFT Code) is populated as part of Beneficiary Bank Name field. Can only contain characters in character set	Payment requires Repair
359-361	3	Purpose of the remittance	Not Required	Not Used
362-362	1	Overseas Bank Charges	Must be one of the following values (not case sensitive): 'B' (Beneficiary) OR 'R' (Remitter) If no value is contained in this field it will be set to B	Not validated
363-397	35	Remitter Name	Mandatory if the Refinance Indicator is set to '1' in any of the Payment Detail records. Must not be populated if the refinance indicator is set to '0' in any of the Payment detail records. The remitter name field must contain the refinance entity's NAB Customer number. Can only be numeric padded out with leading zeros.	Payment requires Repair
398-400	3	Refinance days	Mandatory if Refinance indicator has been set to '1' in any payment detail record '55'. Containing Refinance days or Refinance date (or both). Can only be numeric in the range of 007-365 padded out with leading zeros.	Reject
401-408	8	Refinance date	If the refinance indicator has been set to '1' in any payment detail record '55'. Refinance date or refinance Days or both must be populated. If populated must a valid business day in the format DDMCCYY	Reject

409-443	35	Additional Instructions to Beneficiary Line 1	Optional	Not validated
444-478	35	Additional instructions to Beneficiary Line 2	Optional –if populated can only contain characters in character set	Payment requires Repair
479-513	35	Additional instructions to Beneficiary Line 3	Optional –if populated can only contain characters in character set	Payment requires Repair
514-548	35	Additional instructions to Beneficiary Line 4	Optional –if populated can only contain characters in character set	Payment requires Repair
549-823	275	Additional instructions to NAB	This field must be bank	
824-825	2	Beneficiary Bank Country Code	Mandatory and must be a valid ISO country code. Can only contain 2 uppercase characters A to Z only	Payment requires Repair
826-836	11	Beneficiary BIC Address (ie bank SWIFT Code)	One of the following fields must be populated: EITHER ‘Beneficiary BIC Address’ (i.e. Bank SWIFT Code) AND ‘Beneficiary Bank Country Code’ OR ‘Beneficiary Bank Name’ AND ‘Beneficiary Bank Country Code’ Must be blank if ‘Beneficiary Bank Name’ or ‘Beneficiary Bank Address 1’ or ‘Beneficiary Bank Address 2’ or ‘Beneficiary Bank Address 3’ is populated Can only contain characters in character set	Payment requires Repair
837-838	2	Routing type	If populated, must be one of the following values: FW – Fed Wire FW – ABA Number FW – Routing Code SC – Sort Code CH – CHIPS Number Must be populated if the ‘Routing Code’ is populated.	Reject
839-858	20	Routing code	Must be populated if the ‘Routing type’ is populated and must be alphanumeric	Payment requires Repair
859-893	35	Originating Applicant Details 1		Not used
894-928	35	Originating Applicant Details 2		Not used
929-963	35	Originating Applicant Details		Not used

		3		
964-998	35	Originating Applicant Details 4		Not used
999-1001	3	Number of Detail Records	<p>Numeric and matches the number of payment detail records included in the payment.</p> <p>Mandatory and numeric padded with leading zeros.</p> <p>No. of detail records must be 001 if either:</p> <ul style="list-style-type: none"> ➤ the 'Pay Currency Code' is AUD OR ➤ the 'Pay Amount' field is blank <p>If the Refinance Indicator is set to '1' in any of the Payment Detail records, the no. of detail records must be between 001 and 007.</p> <p>Must be 001 if :</p> <ul style="list-style-type: none"> ➤ Refinance Indicator is set to '1' and ➤ 'Payment Method' is REF and ➤ Debit Currency Code on any of the Payment Detail records is a foreign currency 	<p>Reject</p> <p>Reject</p> <p>Reject</p> <p>Payment requires Repair</p> <p>Payment requires Repair</p>

Payment Detail Record

Char Pos	Field Size	Field Description	User Specification	
1-2	2	Indicator	Must be '55'.	Reject
3-5	3	Payment Method	<p>Must be one of the following values: AUD, BTC, FEC, NFA, REF, RTR, EFX.</p> <p>For payment methods AUD, BTC, FEC, RTR, and EFX, the account currency must be AUD</p>	Reject
6-8	3	Payment Leg Currency Code	Currency code for payment, case sensitive	Reject
9-23	15	Payment Leg Amount	<p>Value must be in the range of 0.01 – 999,999,999,999,999 padded with leading zeros.</p> <p>For a multiple settlement leg payment utilising EFX or FEC either the Debit amount or the Payment leg amount must be populated but not both.</p>	<p>Reject</p> <p>Reject</p>

24-34	11	FX Rate	<p>Must be blank for all Payment methods except for FEC and EFX</p> <p>To contain numbers and decimal point padded out with leading zeros.</p> <p>Must be between 0.000001 and 9,999,999,999</p>	Reject
35-40	6	Debit Account BSB	Debit Account must be a NAB Account registered to NAB Connect.	Payment requires Repair
41-75	35	Debit Account Number	Mandatory refinance indicator is '0', must be blank if refinance indicator is '1'.debit account number must be 9 digits or 10 Characters	Payment requires Repair
76-78	3	Debit Currency Code	Mandatory	Reject
79-93	15	Debit Amount	<p>To contain numbers and a decimal point, padded with leading zeros.</p> <p>If populated, can contain numbers and a decimal point, padded with leading zeros.</p> <p>Must be kept blank for all ; -Single leg payments with exception of FEC, EFX and RTR payment methods -Multileg payments with exception of EFX and FEC payment methods</p> <p>For a single leg payment utilising FEC, EFX and RTR either the Debit amount or the Payment leg amount must be populated but not both.</p> <p>For a multiple settlement leg payment utilising EFX or FEC either the Debit amount or the Payment leg amount must be populated but not both.</p>	Reject
94-94	1	Refinance Indicator	Mandatory and must be one of the following values: '1' – Refinance required '0' – Refinance not required	Reject
95-154	60	Text to NAB for PAY account		Not used
155-160	6	FEC number	Mandatory if 'Payment method' is FEC, leave blank for all other payment methods.	Payment requires Repair
161-175	15	EFX number	<p>Must be 5 numeric characters</p> <p>Mandatory if 'Payment method' is EFX, leave blank for all other payment methods.</p> <p>Must be 7 numeric characters</p>	Payment requires Repair

Payment Trailer Record

Char Pos	Field Size	Field Description	User Specification	
1-2	2	Indicator	Must be '79'.	Reject

Payment Trailer

Char Pos	Field Size	Field Description	User Specification	
1-2	2	Indicator	Must be '89'.	Reject

File Trailer Record

Char Pos	Field Size	Field Description	User Specification	
1-2	2	Indicator	Must be '99'.	Reject
3-22	20	File name		
23-30	8	Date created	If populated must be in the format DDMMCCYY	Reject