Import of Transaction Information

Contents

Introduction

The WAY4™ supports the import of payment documents (slips) created, for contracts, as per card transactions.

The import of slips is effected by the "RBS. Transaction Slips Import.dll" pipe.

Corresponding financial documents are formed, as per import results, in the database of the WAY4 system.

Chapter 1. Parameters of the "RBS. Transaction Slips Import.dll" Pipe

Parameter	Values	Description
TRIM_ZEROS	Y/N	When the value of this parameter = "Y", high-order zeroes are removed, up to the first significant digit, from merchant numbers. The default value of this parameter is "N".
POSTING_DATE	FILE/ NULL/ yyyy-mm-dd	The rules for filling-in the POSTING_DATE field of the document formed as the result of slips import: "FILE" – the value comes from the file and is used as default. "NULL" the "NULL" value is assigned to the field. yyyy-mm-dd – the date shown in the analogous field of the incoming file goes into this field in the document. "FILE" is the default value of this parameter.
NOT_APPROVE	Y/N	This parameter determines whether or not the imported packages need to be approved. If the value is "Y", the documents formed as the result of import are not processed. The default value of this parameter is "N".
REQUEST_MODE	Y/N	If the value is "Y", authorization documents are formed as import progresses – before corresponding financial documents are added to the database. The default value of this parameter is "N".
KEEP_DECLINE_DOCS	Y/N	If the value is "N", which is default, documents rejected during import are removed from the DOC table. If the value is "Y", the rejected documents are saved with the AMND_STATE= "C" status.
UNIQUE_BATCH_NUMBER	Y/N	If the value is "Y", as import progresses the imported package is automatically given a unique number (SOURCE_REG_NUM) that includes the date of creation the number of the file being imported and the number of the package in the file. If the value is "N", the number of the package in the file is used as SOURCE_REG_NUM.
ONLY_CHECK	Y/N	If the value is "Y", the pipe just verifies the formats of the files to be imported, without actually importing them. The default value of this parameter is "N", which means that the files must be imported.

Parameter	Values	Description
RESP_FOR_DUPL_FILES	Y/N	If the value is "Y", an attempt to import a file that has already been imported will result in a response to this effect. The repeatedly imported file will be moved to the folder for erroneous files. The default value of this parameter is "N". In this case no response is generated, the repeatedly imported file remains in the folder for imported files and, while import is in progress, an error message is generated.

Chapter 2. File Formats

Format of an Incoming File

An incoming file contains data as to the transactions completed under card contracts of the issuing module. In the WAY4 system, incoming files are used for accounting the movement of amounts of money between the accounts of a contract caused by card transactions. Incoming files must be placed in the postal directories for such files of corresponding financial institutions.

The data contained in incoming files are ASCII-coded. The length of each record equals 250 bytes, including the two bytes of the raw delimiter (CRLF). Each raw of a file contains one message. The types of messages in a file are as follows: package header, package trailer and transaction message.

The first message in a file is the file header and the last is the file trailer. Transaction messages contained in a file are grouped in packages. Each package begins with the package header and ends in the package trailer. Each package may contain only transaction of the same type and in the same currency.

Field formats:

- **n** is a numeric field. It may contain digits only, is right–justified and is padded, to the left, with zeroes to the indicated length.
- **ans** is an alphanumeric field that may contain any printable symbols. It is left-justified and is padded, to the right, with spaces to the indicated length.
- **JJJ** is a date field where JJJ is the sequential number of a day in a year, ranging between 001 and 366.
- **YYMM** is a date field where YY are the last two digits of a year, ranging between 00 and 99, and MM is the sequential number of a month in a year, ranging between 01 and 12.
- **YYYYMMDD** is a date field where YYYY is a year, ranging between 0000 and 9999; MM is the sequential number of a month in a year, ranging between 01 and 12 and DD is the sequential number of a day in a month, ranging between 01 and 31.
- **HHMISS** is a time field where HH are hours, ranging between 00 and 23; MI are minutes, ranging between 01 and 59 and SS are seconds, ranging between 01 and 59.
- **b** is a binary field. It is used only for row delimiter symbols.

Amounts of money are represented only in the minimal units, such as cents or pennies.

The usage indicators are as follows:

- **M** – the field is mandatory
- **O** – the field is optional

- **C** – data entry depends on the data entered into other fields

If no data are entered in a field, it must be filled with spaces.

Filename Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	File Name Prefix	1	1	M	ans	"T"
2.	File Sender	2	4	M	ans	Sender's code. These codes are defined in the *Member ID* field of the BIN table ("Full → Configuration Setup → Routing → BIN Groups → [BIN Table]"). The value is left-justified. If the code is less than four digits long, it is padded, to the right, with zeroes. If the length of a code in the table is 5 characters, the first 4 characters are used; if the code length is 6 characters, characters 2-5 are used.
3.	Delimiter	6	1	M	ans	"_" – the underline symbol.
4.	File Number	7	2	M	n	The sequential number of the file for the current day.
5.	Delimiter	9	1	M	ans	"." – the dot symbol.
6.	File Date	10	2	M	JJJ	The creation date of the file.

File Header Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"FH"
2.	Row Number	3	6	M	n	The sequential number of a row in a file ("000001" – for the header).
3.	File Label	9	10	M	ans	"TRAN.SLIP"
4.	Version	19	3	M	ans	"10"
5.	File Sender	22	6	M	ans	Sender's code. These codes are defined in the *Member ID* field of the BIN table ("Full → Configuration Setup → Routing → BIN Groups → [BIN Table]"). The value is left-justified and is padded, to the right, with spaces to the indicated length.

No.	Field	Pos	Len	Use	Format	Value
6.	File Creation Date	28	8	M	YYYYMMDD	The creation date of the file.
7.	File Creation Time	36	6	M	HHMISS	The creation time of the file.
8.	Reserved	42	2	M	n	"00"
9.	File Number	44	2	M	n	The sequential number of the file for the current day.
10.	Receiving Member ID	46	6	M	ans	ID of the receiver FI. Codes are defined in the *Our Member ID* field of the table at "Full → Configuration Setup → Routing → Interchange Routing Contracts".
11.	Check Level	52	1	M	ans	Error check level: "F" (file) – if an error is discovered, all the packages in a file are rejected. "B" (package) – erroneous packages are rejected and those containing no errors accepted. If a format error occurs, the entire file is rejected. "R" (transaction) – erroneous transactions are rejected and those containing no errors accepted. If a format error occurs, the entire file is rejected.
12.	Source Message Channel	53	1	M	ans	The code of the source channel. The encoding is defined in the "Full → Configuration Setup → Main Tables → Message Channels" configuration table.

No.	Field	Pos	Len	Use	Format	Value
13.	Source Contract Field	54	1	M	ans	The field whose value determines the parameter to be used as the Source Number of a transaction: "T" means that the Batch Terminal ID parameter is used as the Source Number. "M" means that the Merchant ID parameter is used as the Source Number. The use of this value is banned when a file contains transactions completed on devices, which are not registered in the WAY4 system.
14.	Message Type Auto Detection	55	1	O	ans	The automatic detection of the type of transaction: "N" (default) – the mode is off "Y" – the mode is on. This mode may only be used when agreed with the software supplier.
15.	Reserved	56	192	M	ans	Filled-in with spaces.
16.	Terminal Symbol	248	1	M	ans	"*" – the asterisk symbol
17.	Delimiter	249	2	M	b	0x0D, 0x0A (CRLF)

File Trailer Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"FT"
2.	Row Number	3	6	M	n	The sequential number of a row in a file.
3.	Number of Batches	9	6	M	n	The number of packages in a file.
4.	Hash File Total	15	18	M	n	The check value as to the Batch Total Amount field. The value is calculated with no consideration to the currency, decimal point or sign.
5.	Reserved	33	215	M	ans	Filled-in with spaces.
6.	Terminal Symbol	248	1	M	ans	"*" – the asterisk symbol
7.	Delimiter	249	2	M	b	0x0D, 0x0A (CRLF)

Package Header Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"BH"
2.	Row Number	3	6	M	n	The sequential number of a row in a file.
3.	Batch Number	9	10	M	ans	Package ID. This ID This ID is an element of the registration number of the document (Source Reg Number) formed for a package by the system.
4.	Merchant ID	19	15		ans	Merchant ID. This field is filled-in if, in the file header, Field = "M" or if a file contains transactions completed through devices unregistered in the system.
5.	Batch Terminal ID	34	8		ans	Terminal ID. This field is filled-in if, in the file header, Source Contract Field = "T".
6.	Message Type	42	12	M	ans	The code of a message or a transaction. The encoding is defined in the "Full → Configuration Setup → Transaction Types → Message Types - All" table.
7.	Batch Currency	54	3	M	ans	The numeric ISO-4217 code of the currency of the transactions contained in the package.
8.	Processing Date	57	8	O	YYYYMMDD	The bank date, as of which documents generated by the package import are processed.
9.	Reserved	65	183	M	ans	Filled-in with spaces.
10.	Terminal Symbol	248	1	M	ans	"*" – the asterisk symbol
11.	Delimiter	249	2	M	b	0x0D, 0x0A (CRLF)

Package Trailer Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"BT"
2.	Row Number	3	6	M	ans	The sequential number of a row in a file.
3.	Number of Transactions	9	6	M	n	The number of transactions in the package.

No.	Field	Pos	Len	Use	Format	Value
4.	Batch Total Amount	15	18	M	n	The sum total of the Transaction Amount field.
5.	Reserved	33	215	M	ans	Filled-in with spaces.
6.	Terminal Symbol	248	1	M	ans	"*" – the asterisk symbol
7.	Delimiter	249	2	M	b	0x0D, 0x0A (CRLF)

Transaction Message Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"RD"
2.	Row Number	3	6	M	n	The sequential number of a row in a file.
3.	Slip Number	9	12	M	ans	Document number, that is, message ID This number, like the sequential number of a message in a package, is an element of the Source Reg Number of the document created during import.
4.	Transaction Date	21	8	M	YYYYMMDD	The date of transaction
5.	Transaction Time	29	6	M	HHMISS	The time of transaction
6.	Transaction Amount	35	15	M	n	The amount of a transaction in its currency.
7.	Retrieval Reference Number	50	12	C	ans	This field must contain the same number as the RRN field of the authorization message. This field is filled-in for authorized only transactions involving the reading of magnetic strip or a chip.
8.	Approval Code	62	6	C	ans	The authorization code. The field is filled-in when there was an authorization.
9.	Acquirer Reference Number	68	23	C	ans	Acquirer Reference Number. This field must be filled-in if the ARN is generated by the sender.

No.	Field	Pos	Len	Use	Format	Value
10.	Transaction Condition	91	3	M	ans	Transaction condition: "ATM" – ATM, "POS" – POS secured, "POM" – POS manual, "POE" – POS electronic, "NMN" – Manual. The encoding is defined in the *Code* field of the Transaction Conditions list.
11.	Card Number	94	24	M	ans	The number of the card used in the transaction.
12.	Date Expiration	118	4	M	YYMM	The expiration date of the card.
13.	Card Sequence Number	122	1	C	n	The sequential number of a card in the WAY4 system. This field is filled-in for transactions involving the reading of magnetic strip or a chip.
14.	Reserved	123	8	M	ans	Filled-in with spaces.
15.	SIC Code	131	4	C	ans	SIC (MCC) merchant code (the ISO code of the sales outlet category). This field is filled-in if the file contains transactions completed with the use of devices unregistered in the WAY4 system.
16.	Merchant Name/Location	135	25	C	ans	The name and location of the merchant.
17.	City	160	13	C	ans	The city or town where the transaction was completed.
18.	Country	173	3	C	ans	3-digit country code.
19.	Target Message Channel	176	1	C	ans	The code of the channel of recipient. This field is filled-in if the channel is determined by the sender. The encoding is defined in the *Code* field of the "Full → Configuration Setup → Main Tables → Message Channels" table.
20.	Reserved	177	21	M	ans	Filled-in with spaces.
21.	Transaction Condition Extension	198	1	C	ans	The additional transaction descriptor: "S" means that a smart card was used.
22.	Reserved	199	49	M	ans	Filled-in with spaces.

No.	Field	Pos	Len	Use	Format	Value
23.	Terminal Symbol	248	1	M	ans	"*" – the asterisk symbol
24.	Delimiter	249	2	M	b	0x0D, 0x0A (CRLF)

Format of a Response File

A response file is sent in response to an incoming data file. It confirms its receipt and contains information as to errors therein. Response files are created in the mailing folder for outgoing files of the corresponding financial institution.

Data contained in response files are ASCII-encoded. The record length is 204 bytes, including the two bytes of the row delimiter (CRLF). Each row contains one message. The types of these messages are as follows: file header, file trailer and information message. Each file begins with a file header and ends in a file trailer. If the incoming file contained no errors, the corresponding response file contains no information messages.

There are two kinds of information messages: those concerning the results of package import and messages as to errors detected in the specific rows of the incoming file. There is one message concerning the receipt of each package, which is not created if no packages were found in the incoming file. If, while an incoming file was being received, errors were detected in it, a message to this effect is created for each erroneous row, error messages following those concerning the results of the import of respective packages.

Field formats:

- **n** is a numerical field containing only integers, right-justified and padded to the indicated length to the left with zeros.
- **an** is a character field that may contain any printable characters, left-justified and padded to the indicated length to the right with spaces.
- **JJJ** is a date field where JJJ is the sequential number of a day in a year, ranging between 001 and 366.
- **YYYYMMDD** is a date field where YYYY is a year, ranging between 0000 and 9999; MM is the sequential number of a month in a year, ranging between 01 and 12 and DD is the sequential number of a day in a month, ranging between 01 and 31.
- **HHMISS** is a time field where HH are hours, ranging between 00 and 23; MI are minutes, ranging between 01 and 59 and SS are seconds, ranging between 01and 59.
- **b** is a binary field. It is used only for row delimiter symbols.

The usage indicators are as follows:

- **M** – the field is mandatory
- **O** – the field is optional
- **C** – data entry depends on the data entered into other fields

If no data are entered in a field, it must be filled with spaces.

Filename Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	File Name Prefix	1	1	M	ans	"Y"
2.	Inward File Sender	2	4	M	ans	Incoming file sender code. The field if left-justified and padded, to the right, with zeroes. Its value is the same as that the File Sender field of the incoming file.
3.	Delimiter	6	1	M	ans	"_" – the underline symbol.
4.	Inward File Number	7	2	M	n	The sequential number of the incoming file for the current day. Its value is the same as that of the File Number field of the incoming file.
5.	Delimiter	9	1	M	ans	"*" – the asterisk symbol.
6.	Inward File Date	10	3	M	JJJ	The creation date of the incoming file. Its value is the same as that of the File Date field of the incoming file.

File Header Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"FH"
2.	Row Number	3	6	M	n	The sequential number of a row in a file ("000001" – for the header).
3.	Filler	9	1	M	ans	The space symbol.
4.	File Label	10	10	M	ans	"SLIP-RESP"
5.	Filler	20	1	M	ans	The space symbol.
6.	Version	21	3	M	ans	The number of the file format version.
7.	Filler	24	1	M	ans	The space symbol.
8.	Inward File Sender	25	6	M	ans	Incoming file sender code. The field if left-justified and padded, to the right, with spaces. Its value is the same as that the File Sender field of the incoming file.
9.	Filler	31	1	M	ans	The space symbol.

No.	Field	Pos	Len	Use	Format	Value
10.	Inward File Date	32	10	M	YYYY/MM/DD	The creation date of the incoming file. Its value is the same as that of the File Date field of the incoming file.
11.	Filler	42	1	M	ans	The space symbol.
12.	Inward File Time	43	8	M	HH:MI:SS	The creation time of the incoming file. Its value is the same as that of the File Time field of the incoming file.
13.	Filler	51	1	M	ans	The space symbol.
14.	Reserved	52	2	M	n	Filled-in with zeroes.
15.	Inward File Number	54	2	M	n	The sequential number of the incoming file for the current day. Its value is the same as that of the File Number field of the incoming file.
16.	Filler	56	1	M	ans	The space symbol.
17.	File Date	57	10	M	YYYY/MM/DD	The creation date of the response file.
18.	Filler	67	1	M	ans	The space symbol.
19.	File Time	68	8	M	HH:MI:SS	The creation time of the response file.
20.	Filler	76	1	M	ans	The space symbol.
21.	Check Level	77	1	M	ans	Error check level: The value of this field is the same as that of the field of the same name in the incoming file (see field 11 of the incoming file header). "F" (File) if an error is detected, all packages of the file are rejected. "B" (Package) Erroneous packages are rejected, while good packages are accepted. In case of a format error, the entire file is rejected. "R" (Transaction) Erroneous transactions are rejected, while good transactions are accepted. In case of a format error, the entire file is rejected.
22.	Reserved	78	124	M	ans	Filled-in with spaces.

No.	Field	Pos	Len	Use	Format	Value
23.	Terminal Symbol	202	1	M	ans	"*" – the asterisk symbol
24.	Delimiter	203	2	M	b	0x0D, 0x0A (CRLF)

File Trailer Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"FT"
2.	Row Number	3	6	M	n	The sequential number of a row in a file.
3.	Filler	9	1	M	ans	The space symbol.
4.	Number of Messages	10	6	M	n	The number of information messages in the file.
5.	Filler	16	1	M	ans	The space symbol.
6.	File Response Flag	17	23	M	ans	File acceptance flag: "FILE REJECTED" "FILE ACCEPTED" "FILE ACCEPTED PARTIALLY" – when several packages are rejected.
7.	Filler	40	1	M	ans	The space symbol.
8.	Number of Accepted Batches	41	6	M	n	The number of received packages.
9.	Filler	47	1	M	ans	The space symbol.
10.	Number of Rejected Batches	48	6	M	n	The number of rejected packages.
11.	Reserved	54	148	M	ans	Filled-in with spaces.
12.	Terminal Symbol	202	1	M	ans	"*" – the asterisk symbol
13.	Delimiter	203	2	M	b	0x0D, 0x0A (CRLF)

Information Message Structure:

No.	Field	Pos	Len	Use	Format	Value
1.	Row Code	1	2	M	ans	"RD"
2.	Row Number	3	6	M	n	The sequential number of a row in a file.
3.	Filler	9	1	M	ans	The space symbol.
4.	Inward Row Number	10	6	C	n	The row number in the incoming file. This field is filled-in in error messages.
5.	Filler	16	1	M	ans	The space symbol.

No.	Field	Pos	Len	Use	Format	Value
6.	Message Type	17	5	C	ans	Message type: • "BATCH" message as to the reception of a package, • for error messages, it is filled with spaces.
7.	Filler	22	1	M	ans	The space symbol.
8.	Inward Batch Number	23	10	C	ans	The sequential number of a package in an incoming file. It is filled when the number of a package was read during import.
9.	Filler	33	1	M	ans	The space symbol.
10.	Inward Document Number	34	12	C	ans	The sequential number of a message in an incoming file (see field 3 in a transaction message in an incoming file). It is filled when the number was read during import.
11.	Filler	46	1	M	ans	The space symbol.
12.	Message	47	100	M	ans	Error description in an error message. In messages as to the reception of a package, it is filled-in according to the rules outlined in "The Structure of Data in the Message Field in Batch Messages" table.
13.	Filler	147	1	M	ans	The space symbol.
14.	Error Code	148	4	M	ans	Error code. If a package contains no errors, then this field, in the package reception message, is filled with zeroes.
15.	Reserved	152	50	M	ans	Filled-in with spaces.
16.	Terminal Symbol	202	1	M	ans	"*" – the asterisk symbol
17.	Delimiter	203	2	M	b	0x0D, 0x0A (CRLF)

The Structure of Data in the Message Field in a Batch Message:

No.	Field	Pos	Len	Use	Format	Value

No.	Field	Pos	Len	Use	Format	Value
1.	Batch Response Flag	47	12	M	ans	The Batch Response flag: "CORRECT" means that the package contains no errors and is accepted unless the entire file is rejected. – "PART.CORRECT" means that the package contains erroneous transactions. Those without errors have been accepted. This value may be assigned only when Error Check Level = "R" (see field 21 of the File Header Structure). "REJECTED" the package is erroneous and has been fully rejected
2.	Filler	59	1	M	ans	The space symbol.
3.	Number of Correct Transactions	60	6	C	n	The number of transactions, in a package, without errors. The field is right-justified and is padded, to the left, with spaces. This field is filled-in when the value of Batch Response Flag (see field one of this table) is either "CORRECT" or "PART.CORRECT".
4.	Filler	66	1	M	ans	The space symbol.
5.	Correct Total Amount	67	16	C	n	The sum total of all transactions in a package that have no errors. It is represented in higher order monetary units, such as dollars or pounds and contains amounts in lower-order units, such as cents or pennies, to the right of the decimal point. The value is right-justified and is padded, to the left, with spaces. This field is filled-in when the value of the Batch Response Flag is either "CORRECT" or "PART.CORRECT" (see field 1 of this table).
6.	Filler	83	1	M	ans	The space symbol.

No.	Field	Pos	Len	Use	Format	Value
7.	Number of Error Transactions	84	6	C	n	The number of erroneous transactions in a package. The value is right-justified and padded, to the left, with spaces. This field is filled-in when the value of the Batch Response Flag is "PART.CORRECT" (see field 1 of this table).
8.	Filler	90	1	M	ans	The space symbol.
9.	Error Total Amount	91	16	C	ns	The sum total of all transactions in a package that has some no errors. It is represented in higher order monetary units, such as dollars or pounds and contains amounts in lower-order units, such as cents or pennies, to the right of the decimal point. The value is right-justified and is padded, to the left, with spaces. This field is filled-in when the value of the Batch Response Flag is "PART.CORRECT" (see field 1 of this table).