



## Operation Manual

# Visa Interchange Interface

03.50.30

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One of the most important Way4™ functions is interchange with payment systems necessary for performing settlement between issuers and acquirers and providing and receiving additional information.

This document gives an overview of interchange between Way4 and Visa and describes rules for working with the Visa interface.

This document is intended for Way4 users, bank or processing centre employees responsible for interchange with payment systems.

While working with this document, it is recommended to use the following reference material from the OpenWay documentation series:

- "Documents"
- "Working with VISA FRS Documents"
- "DB Manager Manual"
- "Interchange Routing"
- "Daily Procedures"
- "Way4™ Dispute Management"
- "Way4™ Stop Lists"
- "Way4™ Transaction Switch. Functional Specification"
- "Configuring Way4 Parameters to Calculate Visa RA"
- "Payment system settlement in Way4™"

The following conventions are used throughout this document:

- Field labels in screen forms are shown in *italics*.
- Button labels in screen forms are enclosed in square brackets, such as [Approve].
- User menu item selection sequences are shown using arrows, as follows: "Issuing → Contracts Input & Update".
- System menu item selection sequences are shown using another kind of arrow, as in: "Database => Change password".
- Key combinations used while working with DB Manager are shown in angular brackets, such as <Ctrl>+<F3>.
- The names of directories, files and file paths that vary for each local computer are enclosed in angular brackets; for example, <OWS\_HOME>.



Warnings about potentially hazardous situations or actions.



Information about important features, additional options or the best use of certain system functions.

# 1 Interchange between Way4 and Visa

Interchange between Way4 and Visa occurs:

- Through special-format files containing data on bankcard transactions, interbank settlements, additional information, information on suspicious transactions, etc.
- Through online messages containing data on authorisations and cards added to payment system exception and stop lists.

Various types of information are exchanged on specialized payment system channels.



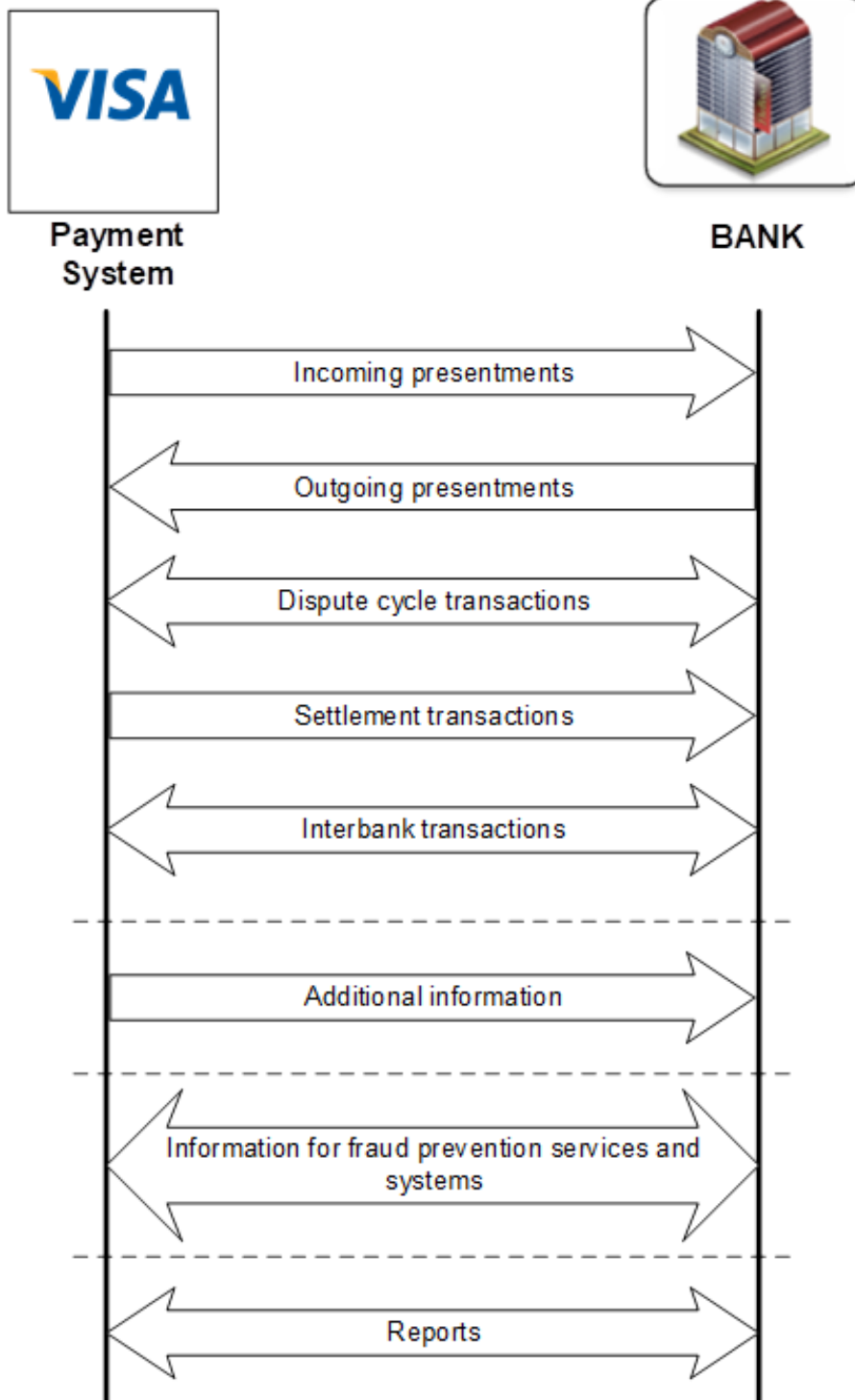
This document describes interchange with the Visa payment system in file exchange mode and online using the Single Messaging System (SMS) service.

## 1.1 Visa Interchange Interface Functionality

Way4 exchanges information with the Visa payment system through the Visa Interchange interface (Visa interface).

The Visa interface is used to:

- Exchange information on executed transactions:
- Exchange clearing information (outgoing and incoming presentments).
- Exchange information on dispute transactions arising when resolving disputes between payment system members.
- Receive settlement information from the payment system.
- Exchange information on interbank transactions.
- Receive additional information from the payment system, for example, BIN tables, stop lists, currency dictionary, merchant category dictionary (SIC codes), etc.
- Exchange information with fraud prevention services and systems; for example, provide and receive information on merchants, suspicious transactions, etc.
- Prepare reports: both statistics that are regularly provided to payment systems and reports used inside a financial institution for reconciliation.



*Visa interface functionality*

## 1.2 Principles of Transaction Information Exchange with Visa

Way4 exchanges files with Visa through the Inward Processing and Outward Processing procedures.

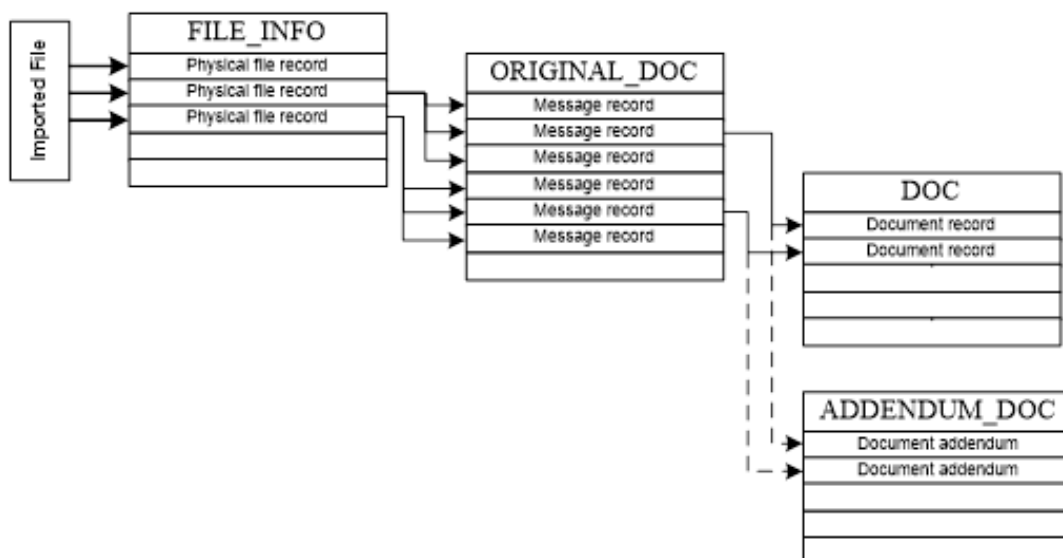
## 1.2.1 Importing Transaction Information into Way4

Data imported to Way4 are physical files whose format is regulated by the payment system. For each imported file, a record is created in the FILE\_INFO table. A physical file contains one or more logical files. Logical files are located in a physical file between its header and trailer.

A logical file contains information grouped in messages (message batches), each of which takes up one or several lines of the logical file. Logical file messages may contain information on financial transactions (presentments, chargebacks, etc.), non-financial operations (for example, retrieval requests), settlement information, service information (the file header and trailer or message batch) and other information.

For each message, including headers and trailers, a record in the ORIGINAL\_DOC table is generated. In these records, all message fields are stored in a special packed format. If required, these records can be unpacked and used for detailed manual analysis.

According to their type, messages can generate records in the DOC (documents) and ADDENDUM\_DOC (additional document parameters) tables, as well as records with additional information in the corresponding service tables:



*Importing transaction information into Way4*

## 1.2.2 Exporting Transaction Information to Visa

During data export, Way4 processes documents that have been assigned the "To be Sent" status during document processing. The creation of an export file also generates records in the FILE\_INFO table for the file to be exported (physical), and for logical files included in it.



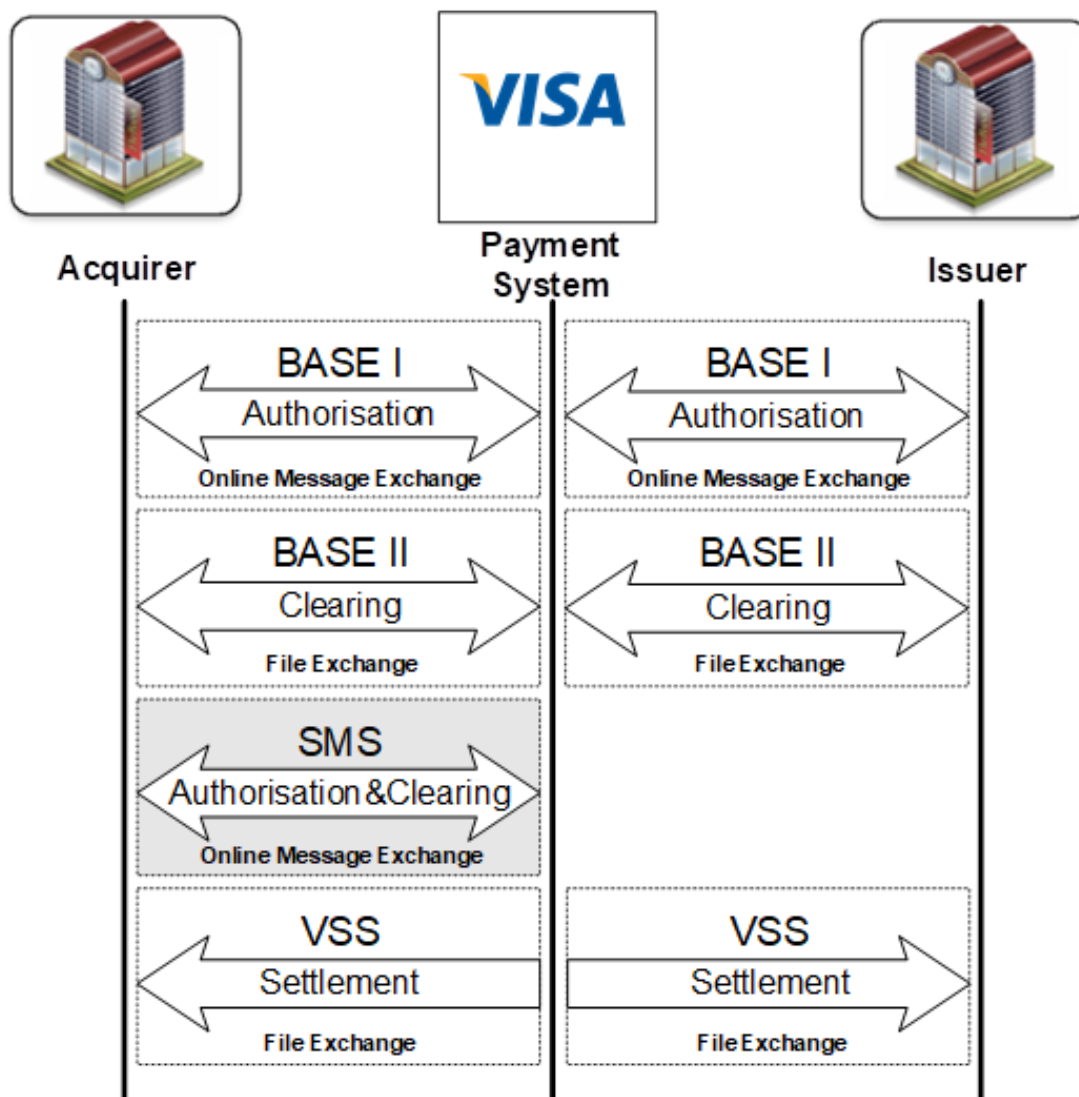
In the current version, a file to be exported contains only one logical file.

During export, records in the ORIGINAL\_DOC table are generated for all the messages in a logical file.

## 2 Visa Interface Description

Visa provides interchange interfaces for transaction information exchange through the following services:

- BASE I is a service through which member banks exchange online authorisation messages.
- BASE II is a service through which issuers and acquirers exchange clearing message files in BASE II format.
- SMS (Single Message System) is a service used to deliver online messages containing both authorisation and financial messages for each transaction.
- VSS (VisaNet Settlement Service) is a service through which settlement information in the BASE II format on transactions executed through BASE I and BASE II as well as SMS is delivered.



*Services providing the Visa interchange interface*



## 3 Processing Incoming Transactions and Exporting Outgoing Transactions using Pipes

This chapter provides basic rules for processing incoming transactions and exporting outgoing transactions when working with Visa if NetServer is used to interact with the payment system (processing centre). In this case, interchange with the payment system takes place through file exchange using pipes.



Note that when Russian rubles with the code 810, corresponding to the Russian ruble before devaluation in 1998 are used by banks and processing centres in settlements, additional settings must be made before importing/exporting data. To do so, it is recommended to use the technology described in the section "undefined" of the document "Currency Conversion".

This issue can also be addressed using the following parameters for import/export pipes:

- `CHANGE_CURR_OUT=810643` for export pipes. In this case, in all exported documents, the currency code will be changed from "810" to "643".
- `"CHANGE_CURR_IN=643810"` for import pipes. In this case, in all documents imported from the payment system, the currency code will be changed from "643" to "810".

These pipe parameters have a higher priority than the recommended settings described in the section "undefined" of the document "Currency Conversion".

If settings for redefining currencies have not been made, exported and imported files will be processed incorrectly.

### 3.1 Processing Incoming Transactions



Processing of incoming transactions is included in daily procedures.

In processing incoming Visa transactions, the following procedures accessed from the "VISA → VISA.Daily Procedures → VISA.Inward Procedures" user menu folder are executed:

- "VISA BASE II Inward Processing" menu item – processing incoming Visa BASE II files. These files contain clearing and settlement information, information about interbank documents, and fraud prevention service and system information.  
Executing this menu item opens the "Open VISA BASE II CTF Incoming File" window, in which users should select files for import.

In executing this menu item, write-off amounts for incoming clearing messages are calculated (Accept Clearing). This procedure allows clearing documents received from payment system incoming files to be processed separately from the general document processing procedure (see the section "undefined" of the document "Documents").

- "VISA SMS Inward Processing" menu item – processing incoming dispute and interbank transactions received through VISA SMS. Information on these transactions is selected from the COMS\_LOG table, which is filled in online by Way4 NetServer.



When Transaction Switch is used for interaction with the payment system through the SMS service (see "[Processing VISA SMS Transactions with Transaction Switch](#)"), this menu item is not used.



For Settlement Transactions to be processed correctly, a record with the "VSS" value in the *Member* field and "Own" in the *Data Source* field must be added to the BIN table (see the section "undefined" of the document "Interchange Routing").

## 3.2 Exporting Outgoing Transactions



Export of outgoing transactions is included in daily procedures.

In exporting outgoing transactions, the following procedures accessed from the "VISA → VISA.Daily Procedures → VISA.Outward Procedures" user menu folder are executed:

- "VISA BASE II Outward Processing" menu item – preparing outgoing clearing files for Visa. These files are generated from documents on transactions executed on the bank's own devices or on those of affiliated banks with cards of other payment system members, and from dispute and interbank documents.



Note that starting from Way4 version 03.45.30, the default value of the REIMB\_ATTR\_FROM\_SERVICE parameter for the pipe run with this menu item has changed. The new default value is "Y". This value must be used if the bank calculates RA (Reimbursement Attribute) using Way4 software (see the document "Configuring Way4 Parameters to Calculate Visa RA").

- "VISA BASE II Prepared Outward Processing" menu item – preparing outgoing clearing files for Visa in parallel export mode (see "[Parallel Export of Clearing Files](#)").
- "VISA FRS Outward Processing" menu item – preparing outgoing FRS documents (for more information, see the section "undefined" in the document "Using the VISA FRS and VISA NMAS Documents").

- "SMS Outward Processing" menu item – preparing outgoing dispute and interbank documents for Visa sent online by Way4 NetServer.



When Transaction Switch is used for interaction with the payment system through the SMS service (see "[Processing VISA SMS Transactions with Transaction Switch](#)"), this menu item is not used.

- "VISA Domestic Transactions Export" menu item – preparation of files on On-Us transactions.
- "VISA Marked Domestic Transactions Export" menu item – preparing files about On-Us transactions in parallel export mode (see "[Parallel Export of Clearing Files](#)").

### 3.2.1 Parallel Export of Clearing Files

To improve performance of the procedure for exporting outgoing transactions, initial preparation of data and export in parallel is provided for in Way4.

In initial preparation of transactions being exported, documents for export are marked by a special procedure to allow their parallel export in several files.

This preparation procedure is run using the menu item "VISA → VISA. File Management → Prepared files → VISA Outward Files Completing" that is intended for initial preparation of documents for transactions made with cards of other payment system members, and dispute and interbank documents.

When this menu item has been run, in documents intended for export will get the "Sent" Outward Status.

The menu item "VISA → VISA. File Management → Prepared files → VISA Outward Files Rollback" is used to roll back initial preparation of transactions for export performed with the menu item "VISA Outward Files Completing"..

When initial preparation has been rolled back using this menu item, the Outward Status of documents will be restored to "To Be Sent".

Documents for export are prepared using the stored procedure `cards_pipes.PREPARE_VISA_OUTWARD_FILES` with the parameters:

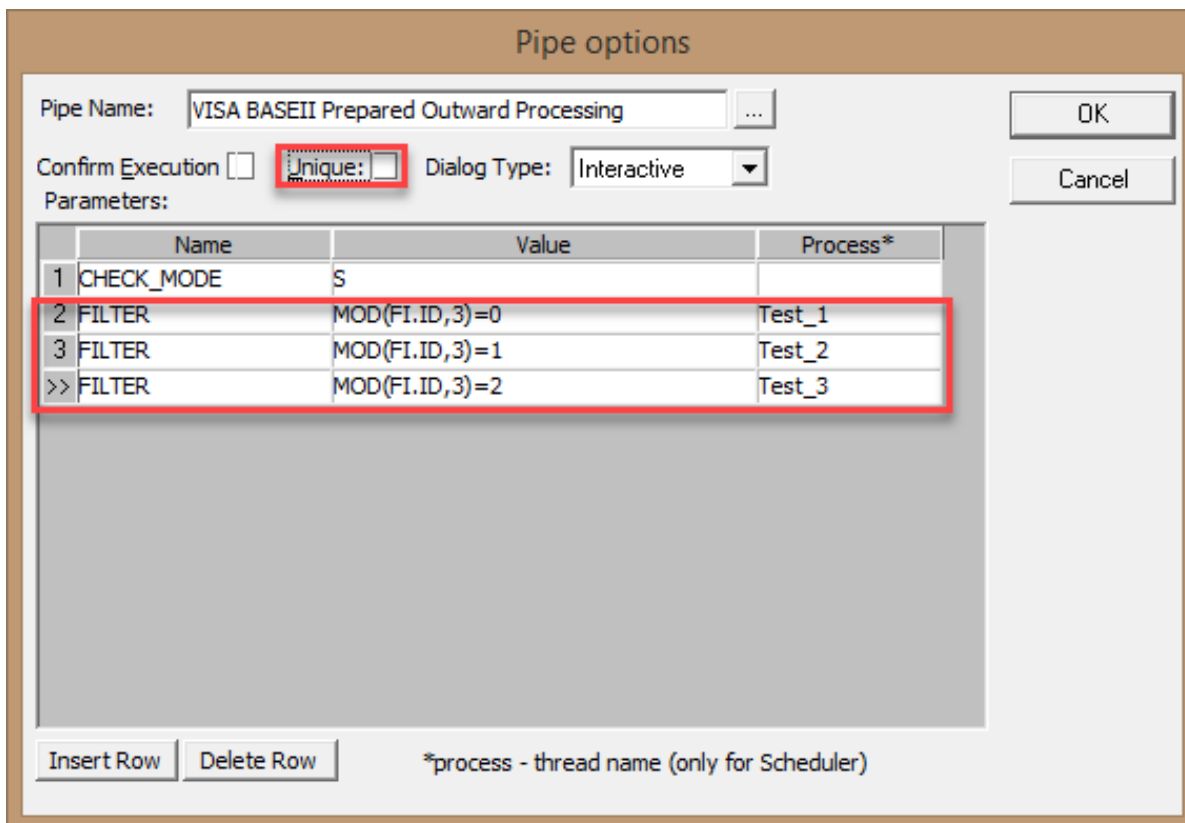
- BATCH\_SIZE – maximum size of a transaction batch in a file being exported; the recommended value is "300".
- FILE\_SIZE – maximum number of batches in a file; the recommended value is "700".

For parallel export of transactions made with cards of other payment system members, and dispute and interbank documents, the menu item "VISA → VISA.Daily Procedures → VISA BASE II Prepared Outward Processing" is used.



Note that use of this menu item in parallel mode is only possible after the corresponding settings have been made and with the use of Scheduler (see the document "Scheduler R2").

An example of setup for the menu item to export transactions in three threads using Scheduler is shown in the figure:



**Pipe options**

Pipe Name:  ...

Confirm Execution ☐ **Unique:** ☐ Dialog Type:  ...

Parameters:

	Name	Value	Process*
1	CHECK_MODE	S	
2	FILTER	MOD(FI.ID,3)=0	Test_1
3	FILTER	MOD(FI.ID,3)=1	Test_2
>>	FILTER	MOD(FI.ID,3)=2	Test_3

\*process - thread name (only for Scheduler)

#### Example of menu item setup

To set up the menu item:

- Uncheck the checkbox in the *Unique* field.
- Add the required number of "FILTER" parameters to the export pipe's parameters. Specify the process name in the *Process* field for each parameter (see the section "undefined" of the document "Menu Editor").



Note that the "FI" abbreviation in FILTER parameter settings refers to the FILE\_INFO table used for preliminary preparation of data using the menu item "".

For more information about setting up menu items for paralleling export of transactions, contain Way4 Support.



When parallel export of files is used, the outward file counter must be reset daily. To reset the counter, run the menu item "VISA → VISA. File Management → Prepared files → VISA Reset Outward File Counter". If the bank uses parallel export of files, it is recommended to run this menu item as part of daily procedures (see the document "undefined").

### 3.2.2 Parallel Export of Information for On-Us Transactions

Starting from version 03.46.30, in Way4 to export information for On-Us transactions to the payment system a new pipe is used (VISA BASEII ONUS Marked Outward Processing). The pipe is run using the menu item "VISA Marked Domestic Transactions Export".

By default, this pipe exports documents with the export status (Outward Status) "On Us Outward". This status is specified when processing and accepting documents for On-Us transactions if the value of the global parameter MARK\_ONUS is "Y" (the default value is "N").

The "VISA BASEII ONUS Marked Outward Processing" pipe can be configured for parallel export of data.

In export, transactions are grouped into batches that are put into files being exported. To ensure parallel export, the numbers of files being exported in parallel and transaction batch numbers are generated using sequences. These sequences are generated cyclically in a banking day for each financial institution identifier (Center Processing BIN).

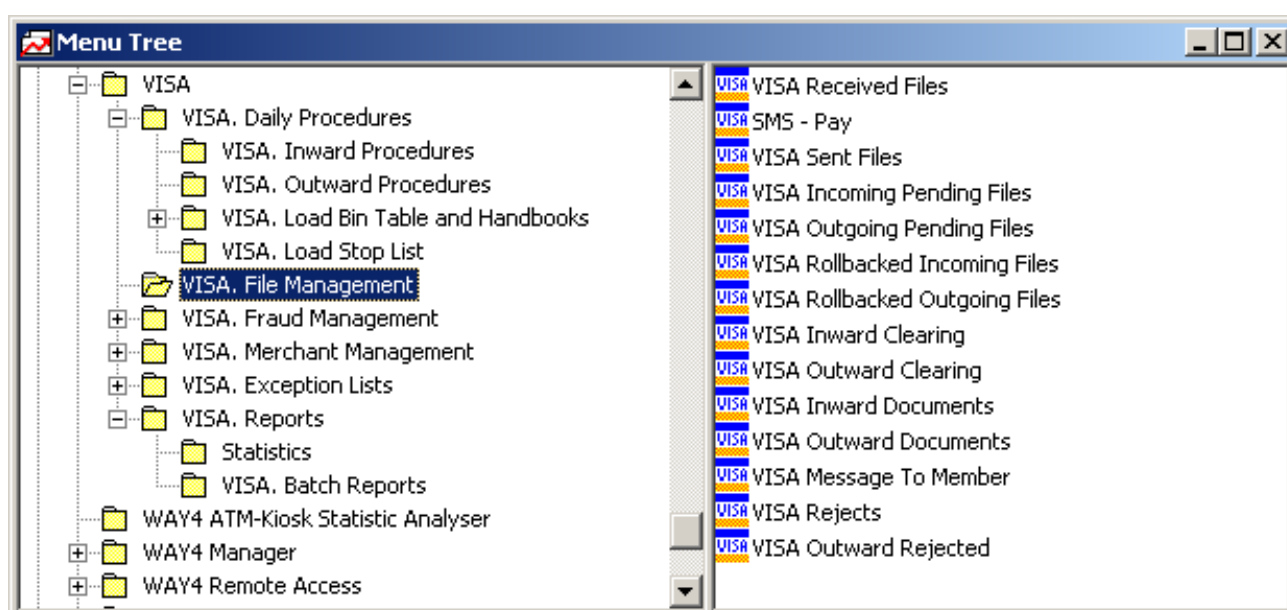
VISA BASEII ONUS Marked Outward Processing pipe parameters:

Parameter	Values	Parameter description
START_BATCH_SEQ		Start number of a transaction batch in a file being exported. The default value is "5000".
END_BATCH_SEQ		End number of a transaction batch in a file being exported. The default value is "9999".
START_FILE_SEQ		Start number of a file being exported. The default value is "0".
OUTW_STS_LIST	'O','Y','N'	Statuses of documents that are being exported, shown in single quotes and separated by commas. The default value is 'O'. The 'Y','N' values are used to export transit documents of affiliate banks.
SOURCE_CHANNEL_LIST		List of source channel codes (see the section undefined of the document "Way4 Dictionaries"). Using this parameter, documents for transactions made with On-Us cards at affiliate bank devices can be added to documents being exported.

Parameter	Values	Parameter description
DEST_CHANNEL_LIST		List of destination channel codes (see the section undefined of the document "Way4 Dictionaries"). The default value is "v" (Our VISA Cards).

## 3.3 Monitoring Imported and Exported Files

Items from the "VISA → VISA.File Management" menu group are used to monitor the status of imported and exported files:



User menu folder for monitoring the status of imported and exported Visa files

### 3.3.1 Imported Files

Imported files are monitored in the "VISA Received Files" form, opened by selecting the menu item "VISA → VISA.File Management → VISA Received Files".

This form uses information from the FILE\_INFO database table (see the section ["Importing Transaction Information into Way4"](#)).

VISA Received Files										<< < > >>	1 of 3	X
Receiving Date	Bank Date	File Type	Received By	File Name	Il of Received	Status	Result	File ID	Parms			
23/08/12 16:44:08	20/08/2012	VISA CTF Incoming	SUPERUSER	ctf1515.inc	3	Received		100202-444444-001	NUMBER OF MONETARY			
23/08/12 16:43:57	20/08/2012	VISA CTF Incoming	SUPERUSER	ctf0525.inc	3	Received		070928-444444-001	NUMBER OF MONETARY			
23/08/12 16:43:28	20/08/2012	VISA CTF Incoming	SUPERUSER	ctf0515.inc	3	Received		070927-444444-001	NUMBER OF MONETARY			

List of files imported from the payment system

The form's fields:

- *Receiving Date* – calendar date and time when the file import started.
- *Bank Date* – banking date of file import.
- *File Type* – file type; this field contains the value "VISA CTF Incoming".
- *Received By* – user who imported the file.
- *File Name* – file name.
- *N of Received* – number of documents contained in the file.
- *Status* – file status; for imported files, the value of this field is "Received".
- *Result* – result of file processing; this field is not filled in for Visa.
- *File ID* – file ID.
- *Parms* – this field is reserved for use in future versions.

The following form fields are only filled in when file export is rolled back (cm. ["File Export Reversal"](#)):

- *Rollback Date* – date file export was rolled back.
- *Rolled back by* – user who rolled back file export.
- *Rollback Reason* – reason for file export rollback.

The [Messages] button is used to view messages generated in the process of importing files.

To access messages contained in a file, select the line corresponding to the required file and click the [Original Docs] button.

The button opens the "Original Docs for <name of file>" form with information on messages contained in the file. This form uses information from the ORIGINAL\_DOC database table (see the section ["Importing Transaction Information into Way4"](#)).

Original Docs for ctf1515.inc										<< < > >>		2 of 4		b	x
	Creation Date	Channel	Direction	File ID	Batch ID	Message ID	Message Code	Source Member ID	Target Member ID	Level	Status	File Info			
	20/08/2012	VISA	Inward	100202-444444-001		00000001	90		444444	Administrative	Closed	ctf1515.inc			
→	20/08/2012	VISA	Inward	100202-444444-001		00000002	1515P		444444	1 Chargeback	Closed	ctf1515.inc			
	20/08/2012	VISA	Inward	100202-444444-001		00000003	91		444444	Administrative	Closed	ctf1515.inc			
	20/08/2012	VISA	Inward	100202-444444-001		00000004	92		444444	Administrative	Closed	ctf1515.inc			
Ins	Del	Query	Doc												

*Information on messages contained in a file*

The form's fields:

- *Creation Date* – banking date when the file was imported.
- *Channel* – name of clearing channel.
- *Direction* – the field contains the "Inward" value.
- *File ID* – logical file ID.
- *Batch ID* – batch ID, if messages are grouped in batches.
- *Message ID* – message sequence number.
- *Message Code* – message code.
- *Source Member ID* – sender's identifier according to payment system rules.
- *Target Member ID* – recipient's identifier according to payment system rules.
- *Level* – message type, for example, "Presentment", "1 Chargeback". The "Administrative" value will be specified in this field for logical file headers and trailers.
- *Status* – message status.

- *File Info* – name of imported file.

Clicking the [Doc] button in the "Original Docs for <name of file>" form opens the "Doc for <...>" form with information on the document corresponding to the selected file message.

Logical file messages are stored in the database in packed form. To access a message's data, select the user menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → Interchange → All Files"; in the "All Files" form that opens, select the required file and click the [Original Data] button.

As a result, the "Original Data for <...>" form will open. This form's fields are the same as those of the "Original Docs for <name of logical file>" form. In the "Original Data for <...>" form, click the [Unpack All] button. As a result, the process of unpacking the messages will be started and a progress bar will be displayed.

When this process finishes, click the [Log Fields] button in the "Original Data for <...>" form will open. The "Log Fields for Original Data for <...>". This form contains information about message fields and their values.

Log Fields for Original Data for ctf1515.inc, [Empty], ctf1515.inc		<< < > >>		12 of 107	b x
	flame	Value			
	001	1			
	Transaction Code	15			
	Transaction Code Part 1	1			
	Transaction Code Part 2	5			
	Transaction Code Qualifier	0			
	TCR 0 Component Sequence No	0			
	Account Number and Extension	4022221234567897			
	Floor Limit Indicator				
	CRB/Exception File Indicator				
	PCAS Indicator				
	Acquirer Ref Number	74444440288345682933964			
→	ARN Format Code	7			
	ARN Bin	444444			
	ARN Date	0288			
	ARN Film Locator	34568293396			
	ARN Check Digit	4			
	Acquirer Business ID	00000000			
	Purchase Date	0215			
	Destination Amount	000000000400			
	Destination Currency	840			

Information on message field values

### 3.3.2 Exported Files

Exported files are monitored in the "VISA Sent Files" form, opened by selecting the menu item "VISA → VISA.File Management → VISA Sent Files".



VISA Sent Files							<< < > >>		1 of 1		X
	Sending Date	Bank Date	File Type	Sended By	File Name	Il of Sent	Status	Response	File ID		
→	28/08/12 14:58:02	20/08/2012	VISA CTF Outgoing	SUPERUSER	401770\CTF-2241.000	3	Sent		12241-401770-000		
<div><div></div></div>											
Ins Del Query Processing Original Docs Messages											

List of files exported to the payment system

This form's fields are the same as those of the "VISA Received Files" form (see the section "[Imported Files](#)"), with the following exceptions:

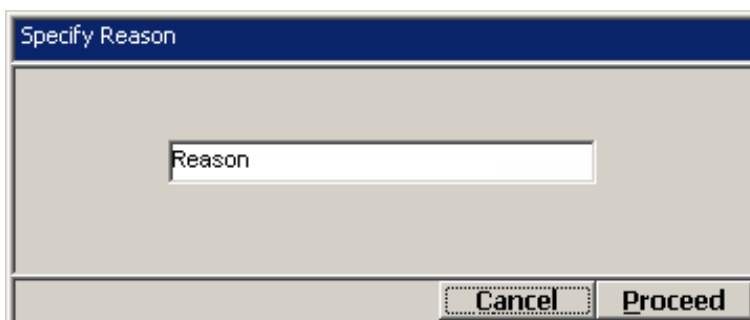
- *Sending Date* – calendar date and time file export was started.
- *File Type* – file type; this field contains the value "VISA CTF Outgoing".
- *SendedBy* – user who exported the file.
- *Status* – file status; for exported files, the "Sent" value will be specified in this field.

Messages in an exported file's logical file are accessed in the same way as for imported files (see the section "[Imported Files](#)").

### 3.3.2.1 File Export Reversal

To roll back file export, in the "VISA Sent Files" form (see the section "[Exported Files](#)"), select the required file, click the [Processing] button and select the "Rollback" item from the context menu.

As a result, the "Specify Reason" form will be displayed. This form is used to enter the reason for file export reversal.



The "Specify Reason" form is a simple dialog box with a title bar. It contains a single text input field labeled "Reason". At the bottom right, there are two buttons: "Cancel" and "Proceed".

Form for entering the reason for file export reversal

After the required data has been entered, click the [Proceed] button; to cancel the operation, click the [Cancel] button.

When the process finishes, a message will be displayed "1 Files Rolled Back". In forms with file information, the *Rollback Date*, *Rolled back by* and *Rollback Reason* fields will be filled in for this file.



Note that after the export reversal operation, a file exported earlier will remain on the hard disk and documents that were to be exported in this file are reassigned the "To be Sent" status. Therefore, after executing this operation, it is recommended to manually delete this file.

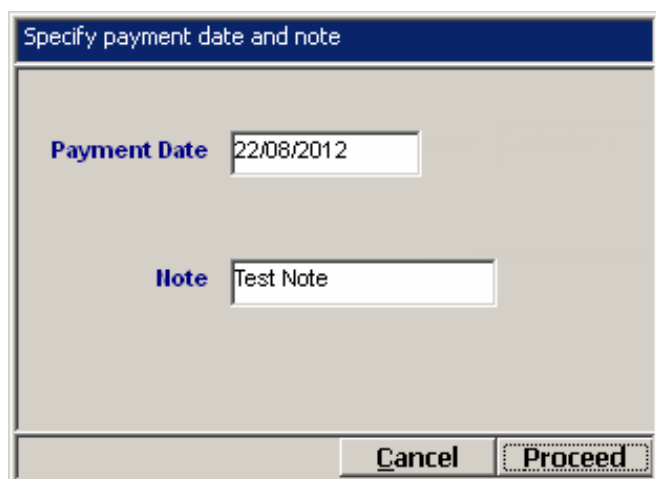
It should also be noted that when re-exporting a file for the same banking date, the new exported file will have the same ID. Therefore, if export reversal and file re-export is executed because a file was completely declined by the payment system (for example, because of an error on the recipient's end), the file should be re-exported on another banking date.

### 3.3.2.2 Marking Documents for which Settlement Information has been Received

In Way4, it is possible to mark documents from a file that was not declined by Visa; when settlement information was received from the payment system for these documents.

To do so, in the "VISA Sent Files" form (see the section "[Exported Files](#)") select the required logical file, click the [Processing] button, and select the "Paid" item from the context menu.

The "Specify payment date and note" form will be displayed:



*Form for entering payment date and comments*

In the *Payment Date* field, enter the date settlement information was received from the payment system, and in the *Note* field, enter a comment.

After the required data has been entered, click the [Proceed] button; to cancel the operation, click the [Cancel] button.



Note that if settlement information was not received from the payment system for documents in a file, an error message will be displayed: "File with File ID <File ID> not settled yet".

If the process is completed successfully, all documents in the logical file will be assigned the status for export to an external system (Outward Status) "Accounted" (compensation received or corresponding funds debited from the bank).

## 3.4 Troubleshooting Typical File Import/Export Problems

Typical problems that occur during file import and export can be classified as follows:

- Errors caused by hardware problems like a server or local network failure (see the section "[Technical Problems](#)").
- Database errors followed by "Oracle SQL Error" messages. If an error of this kind occurs, please refer to Oracle documentation and/or contact Way4 customer support.
- File logical control errors (see the section "[File Logical Control Errors](#)").
- File format control errors (see the section "[File Format Control Errors](#)").
- Physical file errors (see the section "[Physical File Errors](#)").

### 3.4.1 Technical Problems

If errors of this kind occur during file import/export, it is recommended that users perform the following actions after the hardware has been restored:

- Interrupt the active import/export process (see the section "undefined" of the document "DB Manager Manual").
- Cancel file import/export (see the section "[Monitoring Files being Processed](#)").
- Repeat the import/export procedure.

### 3.4.2 File Logical Control Errors

Messages about file logical control errors depend on the file transfer direction (import or export) and the format used on the clearing channel.

When importing these files, the following error messages may be generated:

- "Unexpected file header message. Possibly trailer missing" – it is recommended to contact the payment system to correct the imported data.
- "File ID <File ID> from <file name> Already Processed" – the specified file has already been imported.
- "Missing logical file header" – it is recommended to contact the payment system to correct the imported data.
- "Warning: <FILE NAME> is a test file. Do you want to continue?" – test files may not be imported into a production database.
- "Invalid processing BIN in file trailer" – no configuration is set up in the system for the bank with the specified *Member ID*.
- "Invalid sequence number" – if this message is displayed, it is recommended that users contact the payment system to correct the imported data.

- "Invalid total TCR count:<actual number> -> <specified number>" – incorrect number of TCRs (Transaction Component Records) was found in the logical file trailer. It is recommended that users contact the payment system to correct the imported data.
- "Invalid total monetary transactions count" – incorrect total financial transactions amount was found in the logical file trailer. It is recommended that users contact the payment system to correct the imported data.
- "Invalid total TC count" – incorrect number of transactions was found in the logical file trailer. It is recommended that users contact the payment system to correct the imported data.
- "Invalid total source amount" – incorrect total transactions amount (Source Amount) was found in the logical file trailer. It is recommended that users contact the payment system to correct the imported data.
- "Invalid total destination amount" – incorrect total transactions amount (Destination Amount) was found in the logical file trailer. It is recommended that users contact the payment system to correct the imported data.

If any other error messages are displayed, it is recommended that users contact Way4 customer support.

When exporting Visa files, the following error messages may be generated:

- "File sequence counter overflow. Try on next local date" – file counter for this bank (Sending Member) has exceeded the Visa limits. It is recommended that the document be reposted and sent on a later banking day.
- "Batch sequence counter overflow. Try on next local date" – batch counter for the two banks (Sending/Target Member) has exceeded the Visa limits. It is recommended that the document be reposted and sent on a later banking day.
- "SIC Code incompatible with transaction type" – it is recommended that the document be corrected and reposted.
- "Error in CPS Data format" – if this error message is displayed, it is recommended that users contract system vendor customer support.
- "Chip Data not present" – if this message is displayed, users should check whether the *Transaction Condition* field is filled in correctly and repost the document.

If any other error messages are displayed, it is recommended that users contract Way4 customer support.

### 3.4.3 File Format Control Errors

Way4 informs users of file format control errors through the following messages:

- "File <name of file to be imported> validation failed"
- "Some file(s) were rejected during Interchange Engine Prevalidation"
- "Interchange engine reported error"

If these messages are displayed, analyse the process log as recommended in the section "Recommendations on Timely Identification of Dispute Situations" of the document "Way4 Dispute Management", and send the process information to Way4 customer support.

### 3.4.4 Physical File Errors

The system informs users of physical file errors through the following messages:

- "Could not create directory" – the system cannot create a directory for the file to be imported.
- "Error opening audit counter file" – error while working with the NetServer audit counter file.
- "Could not open Engine requested file" – error while working with the file the pipe is trying to call.

If an error is due to operating system problems, the message is followed by a system error message (see "[Operating System Errors When Working with Files](#)"). Otherwise, or if any other messages are displayed, contact Way4 customer support.

#### 3.4.4.1 Operating System Errors When Working with Files

If operating system errors occur while working with files, contact the system administrator. Operating system errors are followed by the following messages:

- "No such file or directory"
- "Argument list too big"
- "Exec format error"
- "Bad file number"
- "Not enough memory"
- "Permission denied"
- "File exists"
- "Cross-device link"
- "Invalid argument"
- "File Table overflow"
- "Too many open files"
- "No space left on device"
- "Argument too large"
- "Result too large"
- "Resource deadlock would occur"
- "System reported error ..."

### 3.4.5 Monitoring Files being Processed

To monitor status of files that are being processed, use the forms opened through the following menu items:

- Incoming – the "VISA → VISA.File Management → VISA Incoming Pending Files" menu item.
- Outgoing – the "VISA → VISA.File Management → VISA Outgoing Pending Files" menu item.

Selecting one of these menu items opens the "VISA Outgoing/Incoming Pending Files" forms containing lists of files of the corresponding type.

To access information contained in a file, select the record corresponding to the required file and click the [Original Docs] button. To reverse file import/export, click the [Rollback] button.

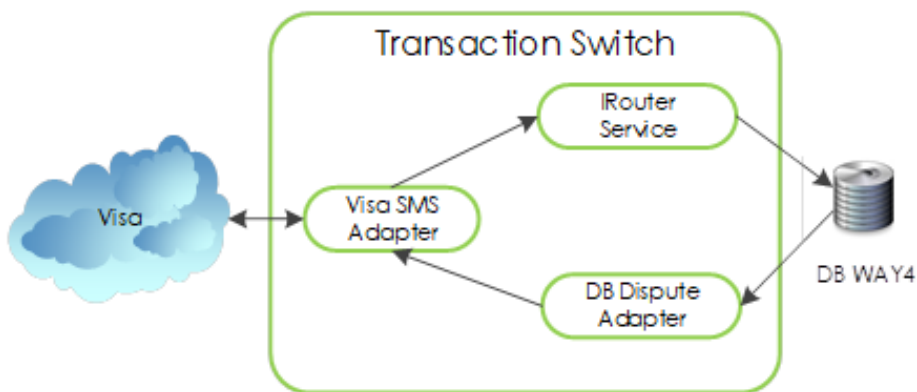


It should be kept in mind that it is impossible to reverse file import/export once the documents contained in the file have been processed.

## 4 Processing VISA SMS Transactions with Transaction Switch

Transaction Switch can be used by acquirers to process incoming and outgoing dispute and interbank transactions with the VISA SMS service (see "Way4™ Transaction Switch. Functional Specification").

In this solution, online information is exchanged with the payment system through Visa SMS Adapter. Inward transactions are sent to the Way4 database through the IRouter service, and DB Dispute Adapter is used to export Outward transactions from the database:



*Using Transaction Switch for interchange with the payment system*



Note that unlike NetServer, the Transaction Switch based solution interacts directly with the DOC database table, therefore the "" and "" pipes are not used.

## 5 Reference information

This section describes exchange of reference information with the payment system.

### 5.1 Importing BIN Tables

This section describes loading of Visa BIN tables in different formats.



During this operation, updates to payment system FX rates are also imported into Way4. Information about loaded FX rates can be viewed using the menu group "Full → Daily Procedures → Load BIN Tables and Handbooks → FX Channel Rates" (see the section "undefined" of the document "Currency Conversion").

#### 5.1.1 Loading BIN tables in BINARD format

Starting from version 03.48.30, Way4 supports loading of BIN tables in BINARD format. For a description of the format, see the section "B.18 BINARD Extract File" in Visa document "BASE II Clearing Edit Package (Release 4) Operations Guide".



This is the preferred option for loading BIN tables, which is recommended by OpenWay.

Files in a new format are loaded using the menu item "VISA → VISA. Daily Procedures → VISA. Load Bin Table and Handbooks → VISA BINARD Table Import".

The directory for loaded files is set using the "source\_dir" parameter of the "VISA BINARD Table Import" (visa.binard\_table\_import.jar) import pipe.

#### 5.1.2 Loading the VISA BIN / ARDEF Table



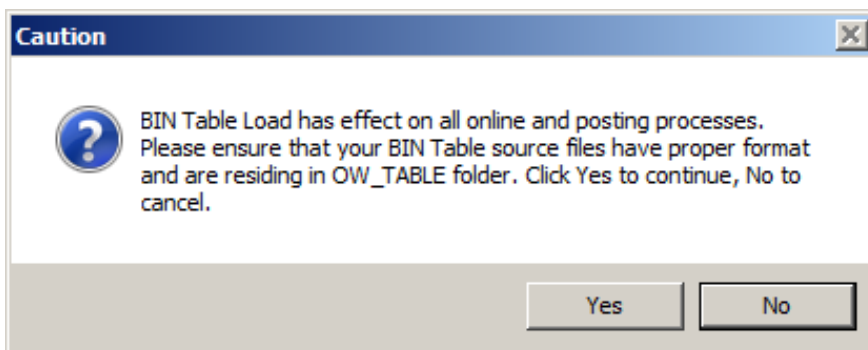
Before update, delete the auxiliary files "VISABIN.TXT" and "VISABIN1.TXT" remaining in the "<OWS\_WORK>\Data\OW\_Table" directory since the previous update.

Note that to work with Visa files containing BIN Table data, a record corresponding to the latest Visa release must have been created in the "IPS Release Changes" table and must be effective (see the section "Support of payment system release requirements" of the document "Interchange Routing").

To load data from the VISA BIN/ARDEF table into the BIN table, proceed as follows:



- Data from the Visa payment system is received and processed through the Edit Package application. Files created during processing must be copied to the "<OWS\_WORK>\Data\OW\_Table" directory with the required names.  
For example, to use Edit Package for DOS to receive and process files, the following operations must be executed:
- Select the "Controls and Utilities / History And Table Utils / Report on Edit Package Files/ Table Files" menu item.
- In the "Output Type Desired" field, specify "FILE", in the "Table Name" field, specify "BIN".
- Copy the file created in the "<EP\_Dir>\Data" directory to the "<OWS\_WORK>\Data\OW\_Table\VISABIN1.TXT" file.
- Select the "Controls and Utilities / History And Table Utils / Report on Edit Package Files/ Table Files" menu item.
- In the "Output Type Desired" field, specify "FILE", in the "Table Name" field, specify "ARDEF".
- Copy the file created in the "<EP\_Dir>\Data" directory to the "<OWS\_Work>\Data\OW\_Table\VISABIN.TXT" file.
- Select the "VISA → VISA.Daily Procedures → VISA. Load Bin Table and Handbooks → VISA & PLUS BIN Tables Import" menu item.  
Immediately before the menu item is executed, a warning will be displayed. Click [Yes] to continue execution, click [No] to cancel.



#### *Warning before starting loading of VISA BIN / ARDEF Table*

When loading data, the following actions are executed:

- All records contained in the BIN table before loading and associated with Visa are assigned the "Inactive" status.
- Every BIN table record that has the same range in the new file is assigned the "Active" status.



If the list of BIN groups contains Visa Intra-Country member groups (see the section "Configuring BIN Groups" of the document "Interchange Routing"), when data is loaded into the BIN table, this data will automatically be structured according to these BIN groups.

### 5.1.3 Loading the VISA PLUS BIN Table



Before update, delete the auxiliary files "VISABIN.TXT", "VISABIN1.TXT" and "VISABINP.TXT" remaining in the "<OWS\_WORK>/Data/OW\_Table" directory since the previous update.

Note that to work with Visa files containing BIN Table data, a record corresponding to the latest Visa release must have been created in the "IPS Release Changes" table and must be effective (see the section "Support of payment system release requirements" of the document "Interchange Routing").

If a file received from Visa contains PLUS BIN table information (the file contains records with Transaction Code 33), a file named "VPB?????.INC" will be automatically generated in the "<OWS\_WORK>\Data\Interchange\PlusBIN" directory after receiving and processing the file. To transfer information from the VISA PLUS BIN table to the Way4 BIN table:

- Copy the "<OWS\_WORK>\Data\Interchange\PlusBIN\ VPB?????.INC" file to "<OWS\_WORK>\Data\OW\_Table\VISABINP.TXT".
- Delete the header and trailer from the file.
- Select the menu item "VISA → VISA.Daily Procedures → VISA. Load Bin Table and Handbooks → VISA & PLUS BIN Tables Import".

Immediately before the menu item is executed, a warning will be displayed (see the section "[Loading the VISA BIN / ARDEF Table](#)"). When loading data, the following actions are executed:

- All current records in the BIN table associated with the VISA PLUS payment system are assigned the "Inactive" status.
- Every BIN table record that has the same range in the new file is assigned the "Active" status.



If the list of BIN groups contains Visa Intra-Country member groups (see the section "Configuring BIN Groups" of the document "Interchange Routing"), when data is loaded into the BIN table, this data will automatically be structured according to these BIN groups.

## 5.2 4.2 Importing information to a stop list

The payment system provides banks information about bank cards that require special treatment. For example, a stolen card must be confiscated if an attempt is made to use it for a transaction.

Data are imported from Mastercard stop lists using the menu item "VISA → VISA.Daily Procedures → VISA.Load Stop List → Load VISA Stop List".

Before executing this menu item, the file received from Mastercard with the name mask "VSL\*.\*" must be copied to the "<OWS\_WORK>\Data\Interchange\VisaStop" directory.

To delete obsolete records from a stop list, use the menu item "VISA → VISA. Daily Procedures → VISA. Load Stop List → Close Inactive VISA Stop List Records".

For more information about working with stop lists, see the document "Way4 Stop Lists".

## 6 Processing Information from Fraud Prevention Systems and Services

In Visa, information on suspicious transactions is gathered through the Fraud Reporting System (FRS). Rules for working with the Fraud Reporting System in Way4 are described in the document section "undefined".

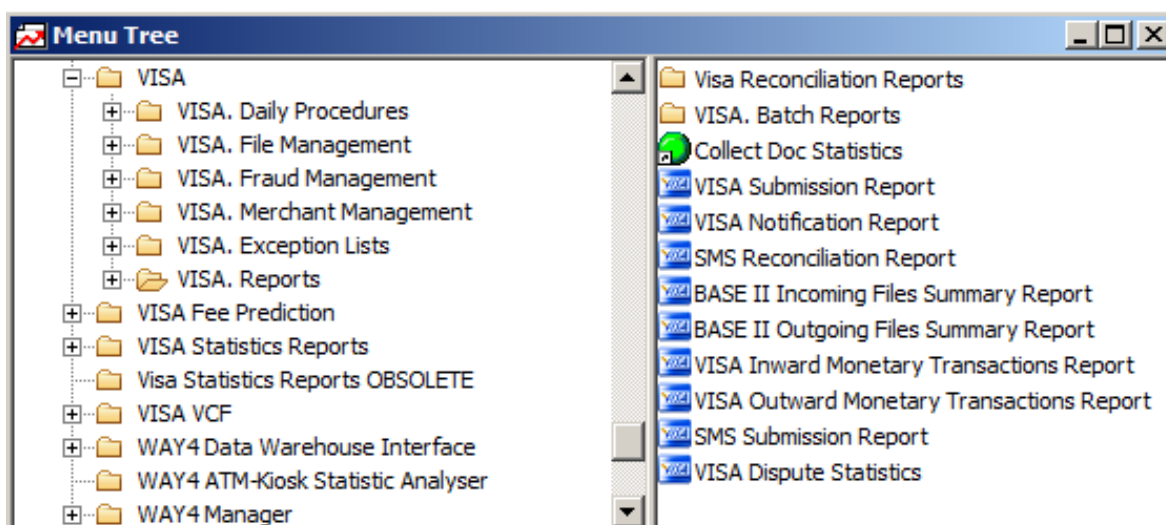
## 7 Generating Reports for Payment Systems

The following report types are required for interaction with the Visa payment system:

- Statistical reports regularly presented to payment systems.
- Internal reconciliation reports used by the financial institution's staff.

An overview of working with Visa statistical reports is presented in the section document "undefined".

To generate internal reconciliation reports used by the financial institution's employees, use the "VISA → VISA.Reports" menu folder:



Menu folder for generating internal reconciliation reports

This menu folder contains the following items:

- "VISA Submission Report". Summary report for VISA BASE II files sent to the payment system by a specified *Member Id* during a specified period. Transactions are grouped according to transaction type and currency.
- "VISA Notification Report". Summary report for VISA BASE II files accepted from the payment system by a specified *Member Id* during a specified period.
- "SMS Reconciliation Report". VISA SMS reconciliation report, which, based on incoming messages received through VISA SMS, exports the results to the "SMSRECON.\*" file ("*<OW\_WORK>\Data\Interchange\Visa\_SMS*" directory).
- "BASE II Incoming Files Summary Report". Technical summary for a specified time interval for each BASE II file accepted by Visa that was sent by a specified *Member Id*. The report gives the number and amounts of transactions for all BASE II transaction types and various transaction conditions.
- "BASE II Outgoing Files Summary Report". Technical summary for a specified time interval for each BASE II file sent by Visa that was accepted by a specified *Member Id*. The report gives the number and amounts of transactions for all BASE II transaction types and various transaction conditions.

- "VISA Inward Monetary Transactions Report". A journal of all BASE II transactions for a specified time interval accepted from Visa by a specified *Member Id*. Report data is grouped according to settlement currency and clearing file number.
- "VISA Outward Monetary Transactions Report". A journal of all BASE II transactions for a specified time interval sent to Visa by a specified (*Member Id*). Report data is grouped according to settlement currency and clearing file number.
- "SMS Submission Report". Summary report on VISA SMS messages authorized during a specified period and grouped by SMS Acquiring BIN. Data is grouped according to transaction type and currency.
- "VISA Dispute Statistics". This report is used to show statistics on dispute documents. Report data is grouped according to the name of financial institution and document type (inward or outward).

## 8 Settings to Support Loyalty Programs

This section is for issuers and processing centres using host-to-host communication for acquiring third-party issuers. The section describes Way4 settings to support Visa October 2015 release loyalty program requirements. These requirements are set forth in the sections (Oct15-663) "6.1.2 Mandate to Support Loyalty Programs for Asia Pacific" and (Oct15-664) "8.1.2 Mandate to Support Loyalty Programs for CEMEA" of the document "October 2015 VisaNet Business Enhancements".

To meet these requirements, do as follows:

1. Check that the "Interbank Reason Codes" dictionary (Full → Configuration Setup → Transaction Types → Interbank Reason Codes) contains the records shown in figure:

Interbank Reason Codes							
				<< < > >>		1 of 4	
Chain Type	Dispute Trans Class	Channel	Processing Class	Code	Name	Is Active	
Original	Inward Fee Collection	VISA		6040	6040 Visa Award	Yes	
Original	Inward Fee Collection	VISA		6050	6050 Visa Award Reversal	Yes	
Original	Inward Fee Collection	VISA		6060	6060 Visa Award Offset Summary	Yes	
Original	Inward Fee Collection	VISA		6070	6070 Visa Award Reversal Offset Summary	Yes	

Required records in the "Interbank Reason Codes" dictionary

If the "Interbank Reason Codes" dictionary does not contain these records, they should be added.

- Check that the "Transaction Type Extensions" (Full → Configuration Setup → Transaction Types → Transaction Type Extensions) contains the record shown in figure:

Transaction Type Extensions					
				<< < > >>	
				1 of 1	
Name	Code	Transaction Type	Additional Extension List	Default Extension	Mandatory
Visa Award	VISA_AWARD		6040;6050;6060;6070		

Required record in the "Transaction Type Extensions" dictionary

If the "Transaction Type Extensions" dictionary does not contain this record, it should be added.

- In the "Interchange Routing Contracts" form (Full → Configuration Setup → Routing → Interchange Routing Contracts), specify a list of routing contracts participating in Fee Collection or Funds Disbursement transactions. To do so, preselect records using a filter: Channel="VISA", Category="Account":

Interchange Routing Contracts											
								<< > >>		1 of 5	
Channel	Institution	BIN Group	Category	Term Cat	Our Member ID	Our BIN	Routing Contract	Curr	Contra Type	Area	Trans Type
VISA	Principal	VISA Standard	Account		491066	491066	001-VISA_FEES				
VISA	Principal	VISA Electron	Account		491066	491066	001-EP_FEES				
VISA	Principal	VISA Certification	Account		491066	491066	001-VISA_FEES				
VISA	Principal	VISA <Country> Electron	Account		491066	491066	001-EP_FEES				
VISA	Principal	VISA <Country> Standard	Account		491067	491067	001-VISA_FEES				

### Routing contracts for Fee Collection and Funds Disbursement records

- In the "Bank Service Packs" form (Full → Configuration Setup → Accounting Setup → Bank Service Packs), select Service Packages for the routing contracts found in step 3. In the target services of these Service Packages, check for the Services shown in figure:

Bank Service Packs									
Institution	Category	Name	Contract Type	Use Default	Use For Contracts	Parent Pack	Is Ready	Fee Contract	
Principal	Account	001-VISA Nostro	Nostro	For All	Product		Ready		

Target for 001-VISA Nostro									
Source Type	Transaction Type	Rate Type	Account Type	Src Fee Code	Service Details	Is Ready			
Nostro	Fee Collection Inc	Middle	CI Deposit	Visa Award	CONTRACT_FOR=DOC_TARGET_NUMBER;	Ready			
Nostro	Funds Disb Inc	Middle	CI Deposit	Visa Award	CONTRACT_FOR=DOC_TARGET_NUMBER;	Ready			

### Configuring Services

If these Services are absent, Services with the following parameters must be added to the "Target for <Service Package name>" table:

- Source Type="Nostro".
- Transaction Type="Fee Collection Inc" or "Funds Disb Inc".
- Rate Type="Middle".
- Account Type= cardholder contract account type, for example "CI Deposit".
- Src Fee Code="VISA Award".
- Service Details="CONTRACT\_FOR=DOC\_TARGET\_NUMBER;".
- After making the aforementioned settings, approve the Service Packages described in step 4. In the "Date From" form, specify the date from which these settings become effective – 15 October 2015.

## 9 Configuring Merchant Contracts

Settings the acquirer must make pursuant to section 1.2 (Apr11-341) "Mandate for the Merchant Verification Value" of the document "April 2011 VisaNetBusiness Enhancements" are described in this section.

A line for the VISA Merchant Verification Value must be added to the "Device Parms Add Info Types" dictionary (Full → Configuration Setup → Merchant Device Setup → Device Parms Add Info Types).

Device Parms Add Info Types						<< < > >>	10 of 23	X
	Name	Code	Initial Count	Max Count	Group Code			
	Reason Code	MWF_REASON_CODE_J	0	0	JCB			
	VISA Mobile Phone Service Provider Name	VISA_MOBILE_PROVIDER_NAME	0	0	VISA			
→	VISA Merchant Verification Value	VISA_MVV	0	0	VISA			
	Contactless Payment Acceptor	MWF_CTLS_IND	0	0	AMEX			
	Active Effective Date	MWF_EFF_DATE_A	0	0	AMEX			
	Cancellation Effective Date	MWF_EFF_DATE_C	0	0	AMEX			
						Ins	Del	Query
						Check		

### Adding a new type of additional information

In merchant contract forms (VISA → VISA. Merchant Management → VISA Acquiring Contracts) for which the Merchant Verification Value must be specified, click the [Add Parms] button. In the *Add Info Type* field of the "Add Parms for ..." form that opens, select the value "VISA Merchant Verification Value" from the drop-down list and in the *String Parameter* field, specify the value provided by the payment system.

AddParms for TEST CASH ACQ			<< < > >>	1 of 1	b x
Add Info Type	String Parameter	Date Parameter			
→ VISA Merchant Verification Value	Some MVV value	00/00/0000			
Ins Del Query					

### Setting the value of the MVV parameter



The Merchant Verification Value is specified in contract parameters according to Visa requirements. This value is provided to the acquirer by Visa and may not be independently specified by the Bank.



Note that the VISA Merchant Verification Value can be specified not only on the merchant account contract level, but on the level of device child contracts as well.



# 10 Settings for Processing VISA Fast Funds Transactions

This section describes Way4 settings to support VISA Fast Funds money transfer technology for crediting funds to a recipient's account within 30 minutes.

According to "Visa Direct Original Credit Transaction (OCT) - Global Implementation Guide" (2016.03.15 Visa-Direct-OCT-global-implementation-guide.pdf) VISA Fast Funds transaction reversals can only be initiated with the approval of the transfer recipient's card issuer.

Support of this technology by payment system member banks is not mandatory in all regions. For information about whether support of VISA Fast Funds technology is required, contact Visa's regional manager.

Money transfer technology is supported in Way4 by a combination of a credit "hold" on funds when making a transaction, with online conversion of an authorization document into a financial one (see the section "Specifics of recording Fast Funds/Money Send transactions in NOSTRO contract accounts" of the document "Payment system settlement in Way4").

To implement this functionality, the following must be configured:

- [Transaction Types](#)
- [Service Package](#)
- [Other Parameters](#)

## 10.1 Transaction Types

To support VISA Fast Funds technology, add the "Notif Prs Credit Item" type to the transaction type dictionary (Full → Configuration Setup → Transaction Types → Transactions – All):

Transactions - All													<< > >>		1 of 1	X
	Service Class	Source	Target	Name	DRICR	Previous	Chain Type	Is Authorized	Is Required	Category	RBS Code	RBS Rev Code	Dispute Class	Trans Type ID	^	
→	Transaction	Device	Card	Notif Prs Credit Item	None	CH Payment	Annex	Never	No	Individual	ND2	nd2		NpP-2S-	▼	
Ins Del		Query	Actions...		SubTypes		Msg Types		Reasons	Requirements	Msg Dict					

*Adding a transaction type*

For this transaction type, click on the [Msg Types] button and add two message types:

Msg Types for Notif Prs Credit Item							<< < > >>		2 of 2		b x	
Channel	Name	Code	Category	Is Authorization	Trans Type	Msg Details	Service Class	Format Code				
Affiliated	Notif CH Payment Fast Funds	0614A2	Advice	Fin	Notif Prs Credit Item		Transaction					
→ VISA	Notif CH Payment Fast Funds	0614A2	Advice	Fin	Notif Prs Credit Item		Transaction					
Ins Del Query												

*Message types*

For the transaction type that was registered, configure the following transaction subtypes:

SubTypes for Notif Prs Credit Item									
Source Cat	Target Cat	Source Type	Target Type	Source Acc Type	Target Acc Type	Triggered Event	Fee Algorithm Options	Name	
Device	Card	VISA Acq	Our VISA Cards	Inc Suspense	Dispute			Notif Prs Credit Item	
Device	Card	VISA Acq	Our Electron/Plus	Inc Suspense	Dispute			Notif Prs Credit Item	

Configuring transaction subtypes

## 10.2 Service Package

To support VISA Fast Funds technology, configure additional Service Packages with the following Services for "Our VISA Cards" and "Our Electron/Plus" contract types:

- If the USE\_PAYMENT\_TRANSACTION parameter of the pipe for importing clearing information has a value other than "N" – with the "CH Payment" Target service:

Service Packs									
Category	Institution	Client	Contract Type	Name	Code	For Contracts	Parent Pack	Fee Contract	Tariff Domain
Card	Principal	Private	Our VISA Cards	001-VISA Fast Funds (Fin Pending)	PV	Additional		001-CLIENT_FEE	Ready

Target for 001-VISA Fast Funds (Fin Pending)									
Source Type	Transaction Type	Rate Type	Fee Dir	Base	%	Min	Name	Fee Account	Account Type
VISA Acq	CH Payment	Middle	Debit	0,00	0,00	0,00	CH Payment (VISA Acq)	Cash Fees Passive USD	CI Deposit

Example of configuring an additional Service Package for the "Our Visa Cards" contract type and the "CH Payment" transaction type

- If the value of the USE\_PAYMENT\_TRANSACTION parameter of the pipe for importing clearing information is "N" – with the "Credit" Target Service:

Service Packs									
Category	Institution	Client	Contract Type	Name	Code	For Contracts	Parent Pack	Fee Contract	Tariff Domain
Card	Principal	Private	Our VISA Cards	001-VISA Fast Funds (Fin Pending)	PV	Additional		001-CLIENT_FEE	Ready

Target for 001-VISA Fast Funds (Fin Pending)									
Source Type	Transaction Type	Rate Type	Fee Dir	Base	%	Min	Name	Fee Account	Account Type
VISA Acq	Credit	Middle	Debit	0,00	0,00	0,00	Credit (VISA Acq)	Cash Fees Passive USD	CI Deposit

Example of configuring an additional Service Package for the "Our Visa Cards" contract type and the "Credit" transaction type

When configuring Target services, specify the value

"PENDING=Y;DOC\_MODE=SMS;DOC\_TAG=RPBA;DOC\_TAG\_VALUE=PRESENT;" in the *Service Details* field.

This Service Package should be attached to card contract Service Packages that must support VISA Fast Funds transactions.



Note that in card contract Service Packages, there may be permissive Services with the "CH Payment" or "Credit" transaction type and an empty value in the *Service Details* field for transactions that are not related to VISA Fast Funds technology. In this case, specify a positive value different than zero in the *Priority* field of Services for VISA Fast Funds transactions.

## 10.3 Other Parameters

To convert Fast Funds transaction documents (containing Fast Funds Indicator) imported from a clearing file into acknowledgements (Chain Type=Acknowledgement), set the value of the global parameter VISA\_FAST\_FUNDS to "Y".

To convert all imported Original Credit Transactions into acknowledgements, regardless of whether Fast Funds Indicator is present, use the "A" value for this parameter (default value). It is recommended to use this value if Fast Funds authorization requests will be processed as financial documents.

## 10.4 Transaction Processing

VISA Fast Funds transactions are processed according to the aforementioned settings as follows:

1. Based on a VISA Fast Funds authorization message received from the payment system, a document with Source Code = "01000P" and the "RPBA=PP;" or "RPBA=AA;" tags in the Add\_Info field is generated in the Way4 database.
2. Using the card contract's Service (see "[Service Package](#)"), the authorization document is converted into a financial one. The "DOC\_MODE=SMS;" tag is specified in this document's Add\_Info field. Before this document is processed by the document processing procedure, the card contract's amount available is increased by a credit "hold" that is created by the "PENDING=Y;" tag of the card contract's Service.
3. The VISA Fast Funds transaction's financial document is processed by the document processing procedure. This results in the credit "hold" being released, and funds are shown in the contract's current account.
4. After the clearing file has been imported to Way4, a document for the Visa Fast Funds transaction with Source Code = "0614A2" is generated in the Way4 database.
5. This clearing document is processed during the document processing procedure. When processing a document, a search is made for a financial document generated online from an authorization document. If this document is found, processing of the clearing document with the "Notif Prs Credit Item" transaction type is successfully completed with the "Successfully completed" response code.
6. If the original financial document is not found when processing the clearing document, processing of a document with the "Notif Prs Credit Item" transaction type will be terminated. A warning message "Presentment not found for fast funds notification, converting to presentment" will be generated. The clearing document's transaction type will be changed to

"CH Payment". The next time the document processing procedure is run, the clearing document will be processed with consideration of the new parameters.

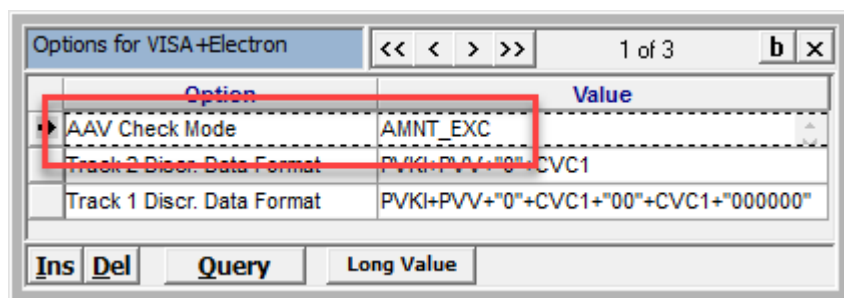
## 11 Configuring bankcard validation parameters

To support Cardholder Authentication Verification Value for EMV 3DS if CAVV Usage 3 Version 7 is used, it is necessary to configure additional parameters.

To do so, in the "Bank Production Parameters" form (Full → Configuration Setup → Card Production Setup → Bank Production Parameters), select the required financial institution and click [Validation].

In the "Validation for <financial institution name >" form that opens, select the required product and click [Options].

In the "Options for <product name>" form, add a record for the "AAV Check Mode" parameter:



Option	Value
AAV Check Mode	AMNT_EXC
Track 2 Discr. Data Format	PVKI+PVV+"0"+CVC1
Track 1 Discr. Data Format	PVKI+PVV+"0"+CVC1+"00"+CVC1+"000000"

Buttons: Ins, Del, Query, Long Value

### Card validation additional parameters

The "AAV Check Mode" parameter can have the following values:

- "DEF" – CAAV (Cardholder Authentication Verification Value) is checked according to the specification "Visa Secure Cardholder Authentication Verification Value (CAVV) Guide".
- "AMNT" – in addition to the method that is used when "DEF" is specified, it is checked that the authorization amount and currency match the amount and currency from authentication data, specified in CAVV supplementary data.
- "AMNT\_EXC" (recommended) – in addition to the method that is used when "DEF" is specified, it is checked that the authorization currency matches the currency from authentication data, specified in CAVV supplementary data, and the authorization amount does not exceed the authentication amount.

For more information, see the section "Validation Parameters" of the document "Configuring Way4™ for Smart Card Issuing".