



Installation and Configuration Manual

Configuring Way4™ Parameters to Calculate Visa RA



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The following notation is used in the document:

- Field labels in screen forms are shown in *italics*.
- Key combinations are shown in angular brackets, for example, <Ctrl>+<F3>.
- Names of screen form buttons and tabs are shown in square brackets, for example, [Approve].
- Sequences for selecting user menu items or context menu items are shown using arrows as follows: "Issuing → Contracts Input & Update".
- Sequences for selecting system menu items are shown using arrows as follows: Database => Change password.
- Variables that differ for each local instance, such as directory and file names, as well as file paths are shown in angular brackets, as in <OWS_HOME>.
- Warnings that there is a danger of making an incorrect action are marked with the  sign.
- Messages marked with the  sign contain information about important features, additional facilities or the optimal use of certain functions of the system.

1 General Principles for Calculating RA

The payment system requires acquirers to calculate RA (Reimbursement Attribute). Therefore, it is recommended that all presentments exported to Visa by the acquirer contain this attribute.

Way4 supports automatic calculation of RA with system software tools.



This functionality can be applied only when the necessary settings for the country and region are present in configuration files provided by OpenWay. To find out which countries are included in configuration files, contact OpenWay customer support.



When implementing the RA calculation technology, it is recommended to use the db\datax\config\VISA_RA_AREA_CFG.sql script from the Way4 distribution. The script is used to update data in country area tables (AREA, AREA_TREE) and, if necessary, can be used in future for RA calculation. For more information about country area support, see the document "Way4 Dictionaries".

RA is calculated using special criteria provided by OpenWay for each release, based on payment system data. Criteria are provided as special format files and are imported using Configuration Inspector.

After importing a configuration, additional setup is required:

- Check and if necessary set up global parameters (see "[Global Parameters](#)").
- Create BIN groups according to geographic principle (region, country).
- For "VISA_NOSTRO" routing contract card subcontracts Service Packages must be set up according to the location of the acquirer and issuer. These Service Packages are used to process interregional transactions (the acquirer and issuer are in different regions), intraregional transactions (the acquirer and issuer are in the same region) and transactions made in the same country (the acquirer and issuer are in the same country).



For RA to be calculated correctly, the *Fee Code* field of these Service Packages must contain an empty value.

- Set up routing for the BIN groups that were created.

After setup of all attributes has been completed, Visa RA will be determined automatically when processing a document for a transaction, based on the selected criterion (see the section "[RA Criteria](#)"). The result of calculation (RA) will go into the TARGET_FEE_CODE field of the DOC table.

2 Way4 Setup for Supporting RA Calculation

To set up Way4, the user must do as follows:

1. Using Configuration Inspector, import configuration files containing criteria for calculating RA (see "[Importing the Standard Configuration](#)").
2. Register BIN groups and import the BIN table (see "[Registering BIN Groups and Importing the BIN Table](#)").
3. Register routing contracts (see "[Routing Setup](#)").
4. Set up routing for registered BIN groups (see "[Routing Setup](#)").
5. Set values for global parameters (see "[Global Parameters](#)") and pipe parameters (see "[File Interface with the Payment System](#)"), or make sure they have been set.

2.1 Global Parameters

To support calculation of RA, the following global parameters must be set in the "Additional Global Parameters" form (Full → Configuration Setup → Main Tables → Additional Global Parameters):

- VISA_CALC_RA with the "Y" value. This parameter enables calculation of RA. The global parameter's value can be redefined in a financial institution using a tag with the same name in the *Special Parms* field.
- VISA_NO_RA_ERR with the "N" value. If this parameter has the "Y" value (default value), documents for which an RA value cannot be calculated during processing are declined and get the "Decline" status. This situation may arise, for example, if there are errors in settings for calculating RA. The "Decline" status means that a document cannot be exported to the payment system without repeat processing. If the parameter's value is "N", when it is impossible to calculate RA, a document can be processed with the corresponding warning. The required RA value can be added to this document manually, after which the document can be exported to the payment system.

2.2 File Interface with the Payment System

Note that if RA calculation is used at the bank, the "REIMB_ATTR_FROM_SERVICE" parameter of the "VISA BASE II Outward Processing" pipe (VISA → VISA. Daily Procedures → VISA. Outward Procedures → VISA BASE II Outward Processing) must have the "Y" value (default value).

2.3 Importing the Standard Configuration

To calculate RA, use Configuration Inspector to import the following configuration files (the files are located in the directory "<OWS_HOME>\db\datax\config\VISA" or are provided by the Way4 vendor):

- "VISA_RA_CFG_<Release>_<Region>.CC.txt" – configuration files containing criteria for calculating RA depending on the transaction type, merchant category, etc. Here <Release> is the Visa Release number, and <Region> is the acquirer's region. For example, the file "VISA_RA_CFG_REL_14_Q4_EU.CC.txt" corresponds to Visa Release "14.Q4" and an acquirer from the "Europe" region.



Note that in addition to the file corresponding to the acquirer's region, all Visa members must import the file "VISA_RA_CFG_<Release>_IR.CC.txt" with criteria for determining RA for interregional transactions.

- "VISA_FP_CFG_<Release>.CC.txt" – configuration file with card Product settings necessary for calculating RA.



Configuration files must be imported for each Visa release. A release's changes will only be applied after the appropriate record has been created in the "IPS Release Changes" table and has become effective (see the section "Supporting Payment System Release Requirements" of the document "Interchange Routing").

The necessary configuration files for import should be put in the "<OW_WORK>\Data\" directory.



Before importing the standard configuration, the document processing procedure should be stopped until import is completed. It is also necessary to delete the previous configuration. To do so, contact OpenWay customer support.

The configuration is imported using the menu item "Full → Configuration Setup → Copy Configuration Import → Configuration File Import".

After starting this menu item, choose configuration files for import (see [Fig. 1](#)).

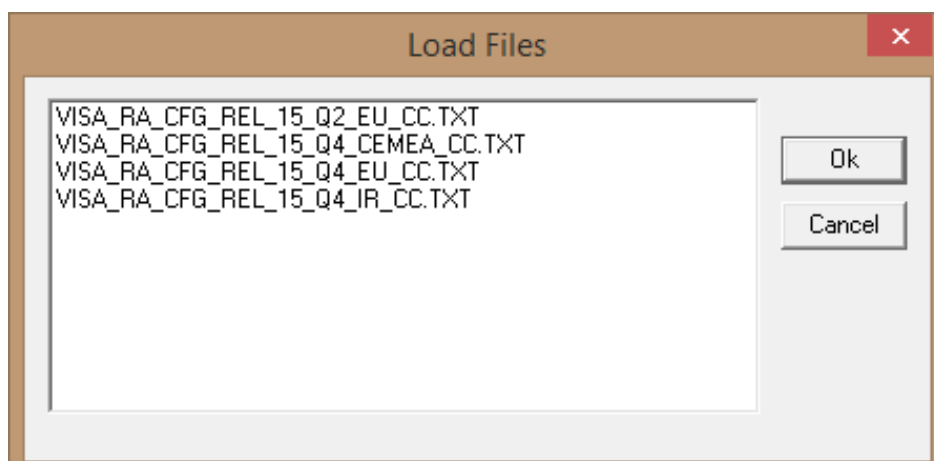


Fig. 1. Selecting configuration files for import

When import has been completed, use the menu item "Full → Configuration Setup → Copy Configuration Import → Copy Configuration Import Screen" to open the "Copy Configuration Import Screen" (see Fig. 2) to view imported data.

Copy Configuration Import Screen					<div><< < > >></div>		1 of 5		X
	Name	IDT	Record ID	Amendment Date	Tree Type	Posting Status			
→	VISA RA IR	CC_160401121337	1092	18/04/16 14:36:44	CC_IMPORT				
	VISA RA EU	CC_160301145635	1082	18/04/16 14:36:07	CC_IMPORT				
	VISA RA CEMEA	CC_150925150509	1072	18/04/16 14:36:04	CC_IMPORT				
	VISA RA EU	CC_150922155924	1062	18/04/16 14:35:39	CC_IMPORT				
<div>InsDelQueryData ...Parm ListBase DataExc: TablesSrc ListMerged ListHeader Data</div>									

Fig. 2. Window for viewing imported data

For more information about importing configurations, see the document "Importing Configurations Using the Configuration Inspector Module".

After the import procedure has been executed, analyse Process Log records corresponding to import of the configuration.

2.4 Registering BIN Groups and Importing the BIN Table

Visa BIN groups are generated according to geographic principle only (region, country).

In the "BIN Groups" form (Full → Configuration Setup → Routing → BIN Groups) for Visa, register the BIN groups shown in Table 1.

Table 1. Setting up BIN groups

Name	Channel	Group Code	Priority
VISA <Country*> Electron	VISA	VC?xxxE**	10

Name	Channel	Group Code	Priority
VISA <Country*> Standard	VISA	VC?xxxS**	10
VISA Certification	VISA	VCERT	30
VISA Electron	VISA	VRW-E	0
VISA Group for Routing Table	VISA	VV	0
VISA Standard	VISA	VRW-S	0

*) Country name.

**) A value from the BIN table *Domain* field (Full → Configuration Setup → Routing → BIN Table) should be specified instead of the "?" symbol. The following characters can be used as this value: "W" (Worldwide), "R" (Regional), "N" (National), "D" (Domestic). A three-letter country code should be specified instead of "xxx"; for example "DNK" (for Denmark).

After registering BIN groups, import the Visa BIN table. For more information about importing BIN tables, see the sections "Loading the VISA BIN / ARDEF Table" and "Loading the VISA PLUS BIN Table" of the document "Interchange Routing".

2.5 Routing Setup

When setting up routing for new BIN groups (see "[Registering BIN Groups and Importing the BIN Table](#)") specify the corresponding subordinate card contract for each BIN group "Routing for <group name>" form (Full → Configuration Setup → Routing → BIN Groups → [Routing]). For more information about registering Interchange routing contracts linked to BIN groups, see the section "Configuring BIN Groups" of the document "Interchange Routing".

2.6 Configuring merchant classification

In certain regions, for calculating an interchange fee Visa uses different rules for different groups of merchants depending on their merchant sales value.

In Way4, merchants can be classified using the additional parameter V_SIZE_MERCH of a merchant contract or device contract.

To use this parameter, add a row (see [Fig. 3](#)) to the "Device Parms Add Info Types" dictionary (Full → Configuration Setup → Merchant Device Setup → Device Parms Add Info Types).

Name	Code	Initial Count	Max Count	Payment System	Type	Is Ready
VISA Merchant Size	V_SIZE_MERCH	0	0	VISA	Device Parm to Doc	Ready

Ins Del Query Check

Fig. 3. Registering the V_SIZE_MERCH parameter

A value of the V_SIZE_MERCH parameter can be set in the "AddParams for..." forms (see Fig. 4) that are called from the merchant account contract form or device contract form by clicking the [AddParams] button.

Add Info Type	String Parameter	Date Parameter
VISA Merchant Size	B	00/00/0000

Ins Del Query Delete

Fig. 4. Setting the V_SIZE_MERCH parameter



Note that the V_SIZE_MERCH parameter's value for the contract can be set using an application (see the documents "Way4 Advanced Applications R2" and "XML Applications (R2)").

As a result, when a document is generated for the transaction made at the merchant device, the parameter value will be inserted in the document's ADD_INFO field as the V_SIZE_MERCH=<value> tag. The specified tag is used when calculating RA for a transaction.

For example, for merchants registered in Spain, the V_SIZE_MERCH parameter must have the following values depending on sales value:

- "B" – when sales value is from 100.000.000 to 500.000.000 euro.
- "D" – when sales value is over 500.000.000 euro.



For merchants registered in Spain whose sales value is less than 100.000.000 euro, this parameter is not configured.

2.7 RA Criteria

RA criteria generated as the result of importing configuration files are saved in a special database table and are available after selecting the menu item "OpenWay → VISA → VISA. RA Configuration → VISA RA Criteria".

This command displays the "VISA RA Criteria" form (see Fig. 5).

VISA RA Criteria																1 of 33	
Jurisdiction	IPS Release #	IPS Release # To	Fee Descriptor	RA	Priority	Product Id	Trans Type	Processing Code	Trans Attr	Original Trans Attr	Timeliness	Approval Code	Min Trans Amount	Max Trans Amount	Trans Curr	Special Restrictions	Doc Tag Restrictions
DNK	13.1		CORPVR	0	250	Corporate Govt	05.06				0		0.00	0.00			
DNK	15.4		DK_CONT_LV_CR	B	95		05.06			PEM07 or PEM91	4		0.00	20.00	EUR		CARD_AFS=C,R,H;
DNK	15.4		DK_CONT_LV_DB	B	95		05.06			PEM07 or PEM91	4		0.00	20.00	EUR		CARD_AFS=D,P;
DNK	15.4		DK_NON-SEC_CR	0	10		05.06				0		0.00	0.00			CARD_AFS=C,R,H;
DNK	15.4		DK_NON-SEC_DB	0	10		05.06				0		0.00	0.00			CARD_AFS=D,P;
DNK	15.4		DK_SECURE_CR	B	80		05.06			PTCS and (PEM90 or PE	4		0.00	0.00			CARD_AFS=C,R,H;
DNK	15.4		DK_SECURE_CR	S	50		05.06			PEM01 and CM4 and (E	4		0.00	0.00			CARD_AFS=C,R,H;
DNK	15.4		DK_SECURE_DB	B	80		05.06			PTCS and (PEM90 or PE	4		0.00	0.00			CARD_AFS=D,P;
DNK	15.4		DK_SECURE_DB	S	50		05.06			PEM01 and CM4 and (E	4		0.00	0.00			CARD_AFS=D,P;
DNK	13.1	15.4	DK_SUPERMKT	0	0		05.06				0		0.00	0.00		IN=5411	
DNK	15.4		DK_VPAY	0	250	Vpay	05.06				0		0.00	0.00			
DNK	15.4		DK_VPAY_ECOM	5	260	Vpay	05.06			PEM01 and CM4 and (E	4		0.00	0.00			
DNK	13.1	15.4	EU_AIRLINE	C	150		05.06				15		0.00	0.00		IN_GROUP=AI	
DNK	13.1	15.4	EU_CNP	7	20		05.06			<<All Card Not Present (C	4		0.00	0.00			
Ins	Del	Query															

Fig. 5. Table of RA criteria

Each record in this form contains a set of transaction parameters and an RA value corresponding to these parameters. The RA value is automatically selected by Way4 according to transaction parameters when processing a document for a transaction.

The "VISA RA" form contains the following fields:

- **Jurisdiction** – region code from the "Country Area" dictionary (Full → Configuration Setup → Main Tables → Country Area) or the three-character ISO code of the country for which the criterion is effective.
- **IPS Release #** – number of the payment system release from which the criterion becomes effective, for example, "15.1".
- **IPS Release # To** – number of the payment system release until which the criterion is effective.
- **Fee Descriptor** – parameter for determining the type of fee for the transaction type (the value is stored in the ADD_INFO field of the DOC table as the "V_FDESC" tag value and is used to calculate the Interchange fee).
- **RA** – RA value stored in the TARGET_FEE_CODE field of the DOC table and also as the value of the "V_RA" tag specified in the ADD_INFO field of the DOC table and used to calculate the Interchange fee.
- **Priority** – criterion priority; when selecting from several options, the criterion with a larger value in this field is used.
- **Product Id** – list of payment system card products, separated by commas.
- **Trans Type** – list of Visa transaction codes (TC); in Way4 this code is the first two characters of the message code from the "Message Types" dictionary (Full → Configuration Setup → Transaction Types → Message Types - All); commas are used as separators.
- **Processing Code** – list of transaction types for which the criterion is effective; in Way4, these transaction types are represented as the last two characters of the message code from the "Message Types" dictionary (Full → Configuration Setup → Transaction Types → Message Types - All); commas are used as separators.
- **Trans Attr** – drop-down list to specify transaction conditions.
- **Original Trans Attr** – Visa criterion for selecting a transaction; the value of the VISA_TA tag specified in the document's ADD_INFO field.
- **Timeliness** – maximum number of days between the transaction date and the date the transaction message was sent to the payment system; when this field contains an empty value, there are no restrictions.
- **Approval Code** – specifies whether a check is made for an authorisation code when determining RA; field values may be "Y" (a code must be present), "N" (a code must be absent) or an empty value (no check is made for a code).

- *Special Restrictions* – field to enter conditions for selecting a criterion, using special tags (see [Table 2](#)).
- *Min Trans Amount* – minimum transaction amount in the currency specified in *Trans Curr*.
- *Max Trans Amount* – maximum transaction amount in the currency specified in *Trans Curr*.
- *Trans Curr* – currency in which transaction amount limits are calculated.
- *Doc Tag Restrictions* – additional conditions for selecting RA this field is used to specify tags (with values) that must be contained in the document's ADD_INFO field for this criterion to be selected.

Table 2. Tags used when filling in the Special Restrictions field

Tag	Format	Description	Possible values
IN_GROUP	IN_GROUP=<val1>,<val2>,...;	The merchant must belong to one of the specified SIC groups for the criterion to be selected.	List of "VISA" SIC groups
IN	IN=<val1>,<val2>,...;	The merchant's SIC code must be specified as the tag value for the criterion to be selected.	List of SIC codes
EXCLUDE	EXCLUDE=<val1>,<val2>,...;	The merchant must not belong to one of the specified SIC groups for the criterion to be selected.	List of "VISA" SIC groups
EXCLUDE_SIC	EXCLUDE_SIC=<val1>,<val2>,...;	The merchant's SIC code must not be specified as the tag value for the criterion to be selected.	List of SIC codes

If necessary, it is possible to edit existing records and register new ones in the "VISA RA Criteria" form (see [Fig. 5](#)).



Note that changes made in the "VISA RA Criteria" form are not saved after importing criteria from files provided by OpenWay.