

Risk Management Reports Setup

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Introduction

WAY4 Risk Schemes are used to control doubtful transactions and to generate reports required by payment systems.

This document is intended for security officers responsible for monitoring card transactions risks.

While working with this document, it is recommended that users refer to the following reference material from the WAY4 documentation series:

- Issuer Risk Management Reports
- Acquirer Risk Management Reports

The following conventions are used throughout this document:

- Field labels in screen forms are typed in *italics*.
- Button labels used in screen forms are placed in square brackets, such as [Approve].
- Menu selection sequences are shown with the use of arrows, such as Issuing → Contracts Input & Update.
- Key combinations used while working with DB Manager are shown in angular brackets, such as <Ctrl>+<F3>.

Chapter 1. Creating the Issuer Risk Schemes

The chapter describes steps to be made by information security officers responsible for monitoring of the card transaction risks to create the Client Contract Risk Schemes and to generate reports required by the payment systems.

The Client Contract Risk Scheme is actually a set of report parameters. The reports provide statistics on the doubtful card transactions.

You can specify properties of the Corporate Client Contract Risk Schemes using menu items of the "Full → Configuration Setup → Products → Issuing Corporate Products → Card Risk Schemes" User Menu folder.

Properties of the Private Client Contract Risk Schemes can be specified using menu items of the Card Risk Schemes User Menu folder. To display them, choose "Full → Configuration Setup → Products → Issuing Private Products → Card Risk Schemes" from the User Menu.

Specifying Properties of the Issuer Risk Schemes

To create or edit such a Risk Scheme, use the "Card Risk Schemes" grid form (see Fig. 1).

Click on [Ins] to create a new scheme in the form.

Name	Code	Parent Scheme	Financial Institution
→ Default USD	DFLT_USD		
MCHIP2.1 EUR	MCHIP_EUR		
VIP USD	VIP_USD		
VSDC EUR	VSDC_EUR		
VSDC EUR	VSDC_EUR		

Ins Del Query Parameters

Fig. 1. Form used to create or edit the Risk Schemes

When creating a new scheme, specify the following field values:

- *Name* – is the name of the Risk Scheme
- *Code* – is a unique code of the Risk Scheme specified by the user as the Scheme ID
- *Parent Scheme* – upper-level risk scheme selected from a list of registered schemes; if a contract is assigned a child scheme, the system will check all monitoring rules of the assigned scheme and its parent schemes
- *Financial Institution* – financial institution where the scheme is registered; a drop-down list of risk schemes for a Service Package or a contract only contains schemes that belong to this financial institution

To specify properties of a Risk Scheme, select its record in the grid form and click on [Parameters].

As a result, the "Parameters for <Scheme Name>" grid form is displayed (see Fig. 2).

Each record in the grid form corresponds to a property of the Risk Scheme. To specify a new property, insert a new record in the form with the [Ins] button.

Parameters for Default USD			<< < > >>		1 of 16	b x
	Description	Code	Value	Risk Template	Risk Scheme	
➔	Maximal Number of Auth. in a Risk SIC	MAXNUMAUTHSIC	1	Exceeded Max. Authorizations Number in Risk SIC	Default USD	
	Maximal Number of Auth. in the Same M	MAXNUMAUTH1M	6	Exceeded Max. Auth. Number by the Same Merchant	Default USD	
	Maximal Number of Auth. in a Risk Coun	MAXNUMAUTHCOUNTRY	1	Exceeded Max. Auth. Number in Risk Country	Default USD	
	Maximal Number of Auth. with Return C	MAXNUMAUTHRETCOD	1	Exceeded Max. Auth. Number with the Return Codes	Default USD	
	Total Amount of Auth. in a Risk Countri	TOTAMNTAUTHCOUNTRY	100	Exceeded Total Auth. Amount in Risk Countries	Default USD	
	Total Amount of Auth. in a Risk SIC	TOTAMNTAUTHSIC	100	Exceeded Total Auth. Amount in Risk SIC	Default USD	
	Maximal Amount of Single Authorization	MAXSINGLEAUTHAMNT	100	Exceeded Individual Auth. Max. Amount	Default USD	
	Maximal Amount of Single Authorization	MAXSINGLEAUTHAMNT	100	Exceeded Individ. Auth. Max. Amnt in Risk SIC	Default USD	
	Maximal Amount of Ind. Auth. in Risk Co	MAXSINGLEAUTHAMNT	100	Exceeded Individ. Auth. Max. Amnt in Risk Countrs	Default USD	
	Max Number of Decrease Authorisation	NUMDECREASEAUTH	2	Authorizations with Decreasing Amount	Default USD	
	Total Authorizations Amount in Day	MAXAMNTSPENDINDAY	100	Exceeded Total Auth. Amount during the Day	Default USD	
	Ratio Key Entered Auth Amount	MAXMANUALRATIO	0.5	Exceed Share of Key Entered Auth Amount	Default USD	
	Max. Auth. Number with the POS02 Cor	MAXNUMPOS02	2	Exceeded Max. Auth. Number with the POS02 Cond.	Default USD	
	Total Amount of Authorizations	TOTAMNTAUTH	250	Exceeded Total Authorizations Amount (Card)	Default USD	
	Maximal Amount Available Utilization Ra	AUTHAMNT2AVRATIO	10	Exceeded Amount Available Utilization Percentage	Default USD	
	Maximal Number of Authorizations	MAXNUMAUTH	1	Exceeded Max. Authorizations Number	Default USD	
Ins Del Query Add Parm Template						

Fig. 2. Form used to specify properties of a Risk Scheme

Specify values of the following fields in the form:

- *Description* – is the name of the Risk Scheme property;
- *Risk Template* – is used to select a standard template; if you want to implement a Risk Scheme described in none of the available templates, contact administrator of WAY4; the set of standard templates is provided by the WAY4 Vendor in accordance with the requirements of the payment systems (see the "Issuer Risk Management Reports" manual);
- *Code* – the field value strictly depends on the *Risk Template* field value if the standard template has been selected; to specify correct value of the Code refer to Table 1.

Table 1. The codes and the additional properties corresponding to the Issuer Risk Scheme templates

Risk Template	Code	Additional parameters
Exceeded Max. Authorizations Number in Risk SIC	MAXNUMAUTHSIC	SIC
Exceeded Max. Auth. Number by the Same Merchant	MAXNUMAUTH1M	
Exceeded Max. Auth. Number in Risk Country	MAXNUMAUTHCOUNTRY	COUNTRY
Exceeded Max. Auth. Number with the Return Codes	MAXNUMAUTHRETCODE	RETCODE
Exceeded Total Auth. Amount in Risk Countries	TOTAMNTAUTHCOUNTRY	COUNTRY
Exceeded Total Auth. Amount in Risk SIC	TOTAMNTAUTHSIC	SIC
Exceeded Individual Auth. Max. Amount	MAXSINGLEAUTHAMNT	
Exceeded Individ. Auth. Max. Amnt in Risk SIC	MAXSINGLEAUTHAMNTSIC	SIC
Exceeded Individ. Auth. Max. Amnt in Risk Countrs	MAXSINGLEAUTHAMNTCOUNTRY	COUNTRY
Authorizations with Decreasing Amount	NUMDECREASEAUTH	RATIO
Exceeded Total Auth. Amount during the Day	MAXAMNTSPENDINDAY	
Exceed Share of Key Entered Auth Amount	MAXMANUALRATIO	CONDITION
Exceeded Max. Auth. Number with the POS02 Cond.	MAXNUMPOS02	CONDITION
Exceeded Total Authorizations Amount (Card)	TOTAMNTAUTH	
Exceeded Amount Available Utilization Percentage	AUTHAMNT2AVRATIO	
Exceeded Max. Authorizations Number	MAXNUMAUTH	

Risk Template	Code	Additional parameters
Exceeded Max. Authorizations Number in Risk SIC	MAXNUMAUTHSIC	SIC

- *Value* – is used to specify the Risk Scheme property value (see the "Issuer Risk Management Reports" manual). The numeric value of the property is defined by the Issuer Bank Policy on the basis of the statistics.

Some templates might imply the use of additional properties. For instance, to monitor transaction carried out in countries of the high-risk group, specify the list of such countries. The templates using additional properties can be found in Table 1.

You can specify additional properties using the "Add Parms for Parameters for <Scheme Name>" grid form (see Fig. 3). To display the form, select the required property record in the "Parameters for <Scheme Name>" grid form and click on [Add Parms].

Fig. 3. Form used to specify or edit additional properties of a Risk Scheme

The form field values should be specified according to the Table 2 rules.

Table 2. The rules to specify values of the <Additional Parms...> form fields

The Code field value	Description of the additional property	The Value field value
CONDITION	Transaction condition codes	See the "Transaction Conditions" dictionary.
COUNTRY	Codes of countries that require using the respective Risk Scheme property	See the list of the Countries ("Full → Configuration Setup → Main Tables → Country Table")
RATIO	The ratio is applied to the sequence of transactions with the decreasing authorization amounts. The property defines the ratio of two sequential transaction amounts	The required ratio represented with a positive number
RETCODE	The response codes that require using the respective Risk Scheme property	See the list of the Response Codes
SIC	The Standard Industrial Classification (in this case VISA uses the MCC term, i.e. Merchant Category Code) that require using the respective Risk Scheme property	See the list of the SIC Codes ("Full → Configuration Setup → Main Tables → SIC Codes")

If a number of values should be specified in the *Value* field, they should be separated with a comma.

Chapter 2. Creating the Acquirer Risk Schemes

The chapter describes steps to be made by information security officers responsible for monitoring of the merchant risks to create the Acquiring Contract Risk Schemes and to generate reports required by the payment systems.

The Acquiring Contract Risk Scheme is actually a set of report parameters. The reports provide statistics on the doubtful transactions carried out with merchant devices.

You can specify properties of the Risk Schemes using menu items of the "Full → Configuration Setup → Products → Acquiring Products → Device Risk Schemes" User Menu folder.

Specifying Properties of the Acquirer Risk Schemes

To create or edit such a Risk Scheme, use the "Device Risk Schemes" grid form (see Fig. 4).

Click on [Ins] to create a new scheme in the form.

Name	Code	Parent Scheme	Financial Institution
Device Default	DEVICE_DFLT		

Buttons: Ins, Del, Query, Parameters

Fig. 4. Form used to create or edit the Risk Schemes

When creating a new scheme, specify the following field values:

- *Name* – is the name of the Risk Scheme
- *Code* – is a unique code of the Risk Scheme specified by the user as the Scheme ID
- *Parent Scheme* – upper-level risk scheme selected from a list of registered schemes; if a contract is assigned a child scheme, the system will check all monitoring rules of the assigned scheme and its parent schemes
- *Financial Institution* – financial institution where the scheme is registered; a drop-down list of risk schemes for a Service Package or a contract only contains schemes that belong to this financial institution

To specify properties of a Risk Scheme, select its record in the grid form and click on [Parameters].

As a result, the "Parameters for <Scheme Name>" grid form is displayed (see Fig. 5).

Each record in the grid form corresponds to a property of the Risk Scheme. To specify a new property, insert a new record in the form with the [Ins] button.

Description	Code	Value	Risk Template	Risk Scheme
Total Chargebacks Amount	TOTALCBAMNT	0.1	Exceeded Total Chargebacks & Retr. Request Amnt	Device Default
Total Chargebacks Number	TOTALCENUM	0.01	Exceeded Total Chargebacks & Retr. Req. Number	Device Default
Individual Transactions Amount to Average	MAXTRANSAMNTRATIO	7	Individual Transactions Amount Exceed Average	Device Default
Maximal Ratio of Transaction Number to Total Transactions Number	TOTTRANSNUMRATIO	0.6	Exceeded Transactions Number	Device Default
Maximal Ratio of Transaction Amount to Total Transactions Amount	TOTTRANSAMNTRATIO	0.6	Exceeded Total Transactions Amount	Device Default
Maximal POM to Total Amount Ratio	MAXPOMAMNTRATIO	1.2	Exceeded POM to Total Transaction Amount Ratio	Device Default
Maximal POM to Total Docs Number Ratio	MAXPOMNUMRATIO	1.2	Exceeded POM to Total Trans. Docs Number Ratio	Device Default
Max. Actual to Period Avrg. POM Docs	MAXPOMNUMAUTHRA	1.2	Exceeded POM to Total Auth. Docs Number Ratio	Device Default
Max. Actual to Period Average POM Am	MAXPOMAMNTRATHR	1.2	Exceeded POM to Total Auth. Amount Ratio	Device Default
Maximal Ratio of Auth. Number to Average	TOTAUTHNUMRATIO	1.01	Exceeded Authorizations Number	Device Default
Maximal Ratio of Transaction Amount to Total Authorizations Amount Avg (Mrch)	TOTAUTHAMNTRATIO	1.2	Exceeded Total Authorizations Amount Avg (Mrch)	Device Default
Individual Authorization Amount to Average	MAXAUTHAMNTRATIO	6	Individual Authorization Amount Exceed Average	Device Default
Maximal Number of Auth. the Same Card	MAXNUMAUTH1C	6	Exceeded Max. Auth. Number by the Same Card	Device Default
Maximal Authorization Amount	TOTAUTHAMNT		Exceeded Total Authorizations Amount Abs (Mrch)	Device Default

Buttons: Ins, Del, Query, Add Parns, Template

Fig. 5. Form used to specify properties of a Risk Scheme

Specify values of the following fields in the form:

- *Description* – is the name of the Risk Scheme property;
- *Risk Template* – is used to select a standard template; if you want to implement a Risk Scheme described in none of the available templates, contact administrator of WAY4; the set of standard templates is provided by the WAY4 Vendor in accordance with the requirements of the payment systems (see the "Acquirer Risk Management Reports" manual);
- *Code* – the field value strictly depends on the *Risk Template* field value if the standard template has been selected; to specify correct value of the Code refer to Table 3.

Table 3. The codes and the additional properties corresponding to the Acquirer Risk Scheme templates

Risk Template	Code	Additional parameter
Exceeded Total Transactions Number on Same Card	TOTTRANSNUM1C	
Exceeded Total Transact. Nmbr on Same Issuer BIN	TOTTRANSNUM1BIN	
Exceeded Total Authoriz. Number on the Same Card	TOTAUTHNUM1C	BIN
Exceeded Total Auth. Number on Same Issuer BIN	TOTAUTHNUM1BIN	BIN
Exceeded Credit to Total Transact. Number Ratio	TOTCREDTRANSNUMRATIO	
Exceeded Credit to Total Transact. Amnt Ratio	TOTCREDTRANSAMNTRATIO	
Exceeded Under Limit to Total Trans. Nmbr Ratio	MAXUNDERLIMITRATIO	
Exceeded Total Declined Authorizations Number	TOTALDECLAUTHNUM	
Exceeded Total Authorizations Amount Abs.(Mrch)	TOTAUTHAMNT	Currency codes
Exceeded Max. Auth. Number by the Same Card	MAXNUMAUTH1C	
Individual Authorization Amount Exceed Average	MAXAUTHAMNTRATIO	
Exceeded Total Authorizations Amount Avg (Mrch)	TOTAUTHAMNTRATIO	
Exceeded Authorizations Number	TOTAUTHNUMRATIO	
Exceeded POM to Total Auth. Amount Ratio	MAXPOMAMNTAUTHRATIO	
Exceeded POM to Total Auth. Docs Number Ratio	MAXPOMNUMAUTHRATIO	
Exceeded POM to Total Trans. Docs Number Ratio	MAXPOMNUMRATIO	
Exceeded POM to Total Transaction Amount Ratio	MAXPOMAMNTRATIO	
Exceeded Total Transactions Amount	TOTTRANSAMNTRATIO	
Exceeded Transactions Number	TOTTRANSNUMRATIO	
Individual Transactions Amount Exceed Average	MAXTRANSAMNTRATIO	
Exceeded Total Chargebacks & Retr. Req. Number	TOTALCBNUM	
Exceeded Total Chargebacks & Retr. Request Amnt	TOTALCBAMNT	

- *Value* – is used to specify the Risk Scheme property value (see the "Acquirer Risk Management Reports" manual). The numeric value of the property is defined by the Issuer Bank Policy on the basis of the statistics.

Some templates might imply the use of additional properties. For instance, to monitor transaction carried out in different currencies during a pre-defined period. The templates using additional properties can be found in Table 3.

You can specify additional properties using the "Add Parms for Parameters for <Scheme Name>" grid form (see Fig. 6). To display the form, select the required property record in the "Parameters for <Scheme Name>" grid form and click on [Add Parms].

	Code	Value	Is On Us	Limit Amount	Limit Curr	Limit N
→	810	5000		0,00	0	
	840	1000		0,00	0	

Ins Del Query

Fig. 6. Form used to specify or edit additional properties of a Risk Scheme

Specify values of the following fields in the form:

- *Code* – is the currency code as listed in Currency Table ("Full → Configuration Setup → Main Tables → Currency Table").
- *Value* – is the amount specified in the currency.

Chapter 3. Generating Risk Management reports in the single report mode

Issuer Risk Management reports

To generate an issuer Risk Management report choose "Full → Issuing → Cardholder Risk Management → Risk Reports - Issuing Single" or "Full → Statistics → Risk Management Reports → Risk Reports - Issuing Single" on the User Menu.

Select a report to execute from the form that opens and click the [Report] button.

See the "Issuer Risk Management Reports" manual for detailed information about on each Risk Management report type individually.

All created reports are stored in the "<WORK_DIR>\Data\Reports\Risk" directory.

Acquirer Risk Management reports

To generate an acquirer Risk Management report choose "Full → Acquiring → Merchant Risk Management" or "Full → Statistics → Risk Management Reports → Risk Reports - Acquiring Single" on the User Menu.

Select a report to execute from the form that opens and click the [Report] button.

See the "Acquirer Risk Management Reports" manual for detailed information about on each Risk Management report type individually.

All created reports are stored in the "<WORK_DIR>\Data\Reports\Risk" directory.

Chapter 4. Generating Risk Management reports in the batch mode

All Risk Management reports can be generated in the batch mode. To generate Risk Management reports choose "Full → Statistics → Risk Management Reports → Risk Reports - Batch" menu item on the User Menu.

See the "Issuer Risk Management Reports" and "Acquirer Risk Management Reports" manuals for detailed information about on each Risk Management report type individually.

All created reports are stored in the "<WORK_DIR>\Data\Reports\Risk" directory.