



## Operation Manual

# SAFE Support

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This document is intended for Way4 users (bank or processing center employees) who are responsible for interaction with Mastercard.

When working with the document, it is recommended to use the following resources from the OpenWay documentation series:

- "Documents"
- "Way4 Global Parameters"
- "Mastercard Interchange Interface"

The following notation is used in the document:

- Screen form field labels are shown in *italics*.
- Screen form button labels are shown in square brackets; for example [Approve].
- Sequences for selecting user 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".
- Key combinations in DB Manager are shown in angular brackets, for example <Ctrl>+<F3>.
- Variables that differ for each local instance, for example, directory and file names, as well as file paths, are shown in angular brackets; for example, <OWS\_HOME>.



Warnings about potentially hazardous situations or actions.

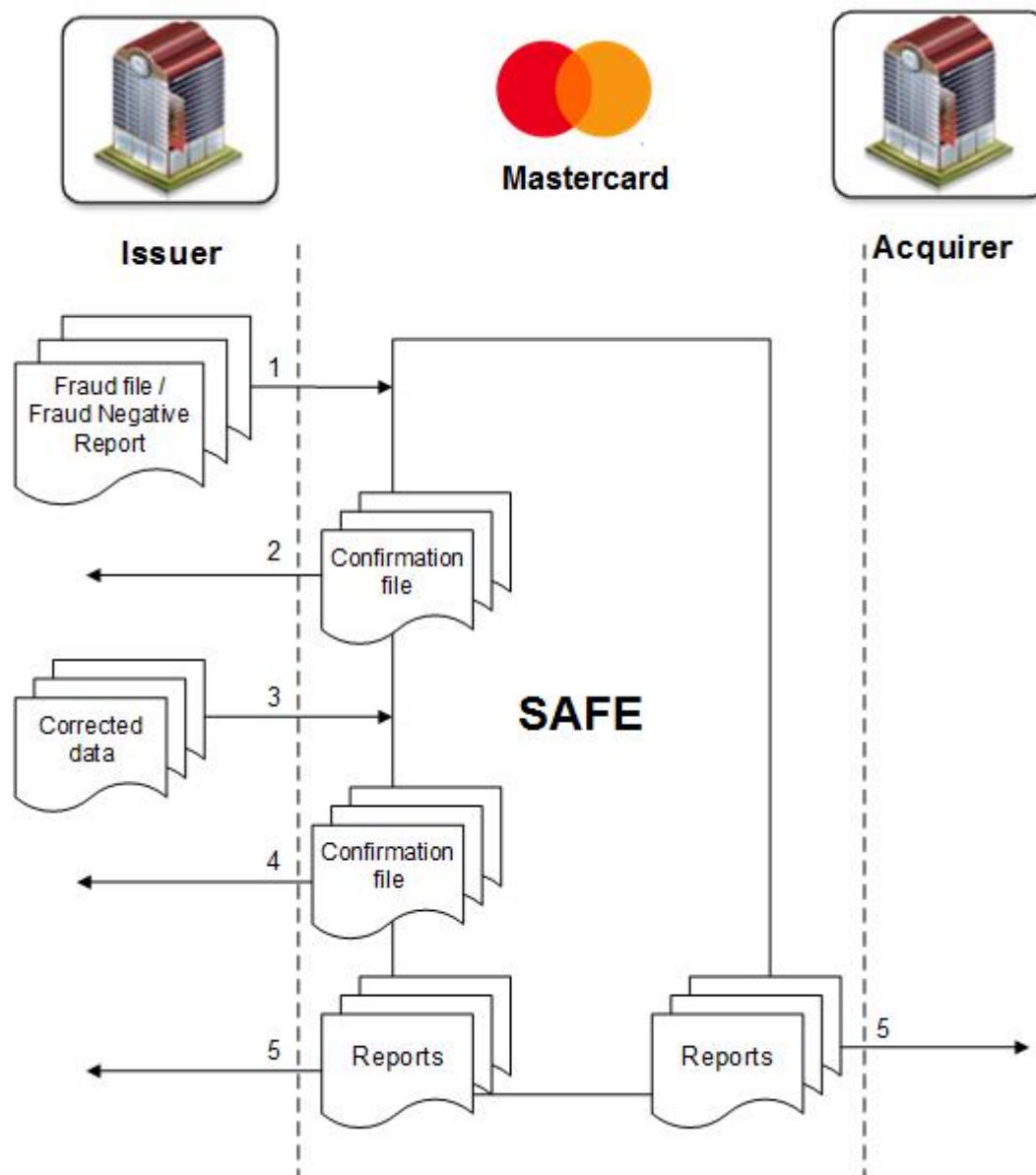


Information about important features, additional options, or the best use of certain system functions.

# 1 General SAFE principles

System to Avoid Fraud Effectively (SAFE) is Mastercard's central repository for on fraudulent transactions. SAFE creates reports and statistics for sending to Mastercard members and is an effective system for tracking down fraud involving Mastercard cards.

Registered Mastercard members exchange data files through the SAFE system.



## Data exchange between issuers, acquirers, and SAFE

The figure shows the direction and contents of file exchange between Mastercard members and SAFE.

1. At least once a month (on any day of the month) the issuer sends SAFE a file with data about fraudulent transactions (fraud file). If no fraudulent transactions were registered in the issuer's

database since the beginning of a calendar month, the issuer must inform Mastercard of this by sending a Fraud Negative Report.

2. The day after a fraud file is received, SAFE sends the issuer a confirmation file with information about data which was/was not accepted.
3. If necessary, the issuer sends corrected data to SAFE.
4. SAFE sends the issuer a confirmation file with information about corrected data which was/was not accepted. Steps 3 and 4 can be repeated as many times as is necessary to correctly process fraud files exported to SAFE by the issuer.
5. On approximately the sixth day of the month, SAFE generates reports for all payment system members, both issuers and acquirers. Reports are generated by analyzing data on fraudulent transactions over several months.

## 2 Working with SAFE documents

[Creating a SAFE document](#)

[Creating a Fraud Negative Report](#)

[List of SAFE documents](#)

### 2.1 Creating a SAFE document

To work with SAFE documents in Way4, use the menu folder "MasterCard → MC. Fraud Management".

To create a SAFE document based on an imported presentment, select "MC Inward Documents" from this menu folder. The "MC Inward Documents" form will open.

MC Inward Documents													<< < > >>	17613 of 75317	X
	Date	Transaction	Category	Source Number	Target Number	To Channel	RRN	ARN	IRN	A-Code	PC	FID	RID		
	04/09/05 00:00:00	Retail	Advice	0004000	5570391568525614	Our EC Cards	5250000000012	75186165247250000000128		100011	ECRD	999903	009129		
→	07/09/05 00:00:00	Retail	Advice	0001001	5570391568525614	Our EC Cards	5250000000013	75186145250250000000132		100012	ECRD	999901	009129		
	06/09/05 00:00:00	Retail	Advice	0001002	5570398839658298	Our EC Cards	5250000000014	75186155249250000000143		100013	ECRD	999902	009129		
	05/09/05 00:00:00	Retail	Advice	0001003	5570391568525614	Our EC Cards	5250000000015	75186165248250000000150			ECRD	999903	009129		
	04/09/05 00:00:00	Retail	Advice	0001004	5570391568525614	Our EC Cards	5250000000016	75186145247250000000161			ECRD	999901	009129		
	07/09/05 00:00:00	Retail	Advice	0001005	5570398839658298	Our EC Cards	5250000000017	75186155250250000000172		100016	ECRD	999902	009129		

*Form with a list of presentments imported from Mastercard*

Select the required document from the list and click the [→ SAFE] button to open the "→ SAFE for MC Inward Documents" form. This form is used to register a SAFE document in the system:

--> SAFE for MC Inward Documents		<< < > >>		1 of 1		b x	
<b>Reg #</b> <input type="text"/>		<b>Fraud Information</b>		<b>Transaction Data</b>			
<b>General Data</b>		<b>Fraud Type</b> <input type="text" value="02 Card Not Received"/>		<b>Merchant ID</b> <input type="text" value="54"/>			
<b>Direction</b> <input type="text" value="Outward"/>		<b>Sub Fraud Type</b> <input type="text" value="PIN Used"/>		<b>ARN</b> <input type="text" value="46759655333000000000021"/>			
<b>Fraud Posted on</b> <input type="text" value="20/05/2009"/>		<b>Card Type</b> <input type="text" value="Maestro"/>		<b>Issuer ICA</b> <input type="text" value="006027"/>			
<b>Record Type</b> <input type="text" value="Add"/>		<b>Chargeback Sent</b> <input type="checkbox"/>		<b>Acquirer ICA</b> <input type="text" value="000265"/>			
<b>Status</b> <input type="text" value="Waiting"/>		<b>Delete Duplicates</b> <input type="checkbox"/>		<b>Card Number</b> <input type="text" value="6762040164709967"/>			
<b>Is Ready</b> <input type="text" value="Not Ready"/>		<b>First Reported On</b> <input type="text" value="00/00/0000"/>		<b>SAFE File ID</b> <input type="text"/>			
<b>Response</b> <input type="text"/>		<b>Response Codes</b> <input type="text"/>					
<b>Ins Del Query Approve Doc - Brief Online</b>							

*Form for entering a SAFE document*

When SAFE documents are created in the "→ SAFE for MC Inward Documents" form, some of the fields are filled in according to the SAFE specification (see Mastercard documentation). When describing these fields, a reference to the field name in Mastercard documentation is provided.

- *Fraud Posted on* – SAFE document creation date

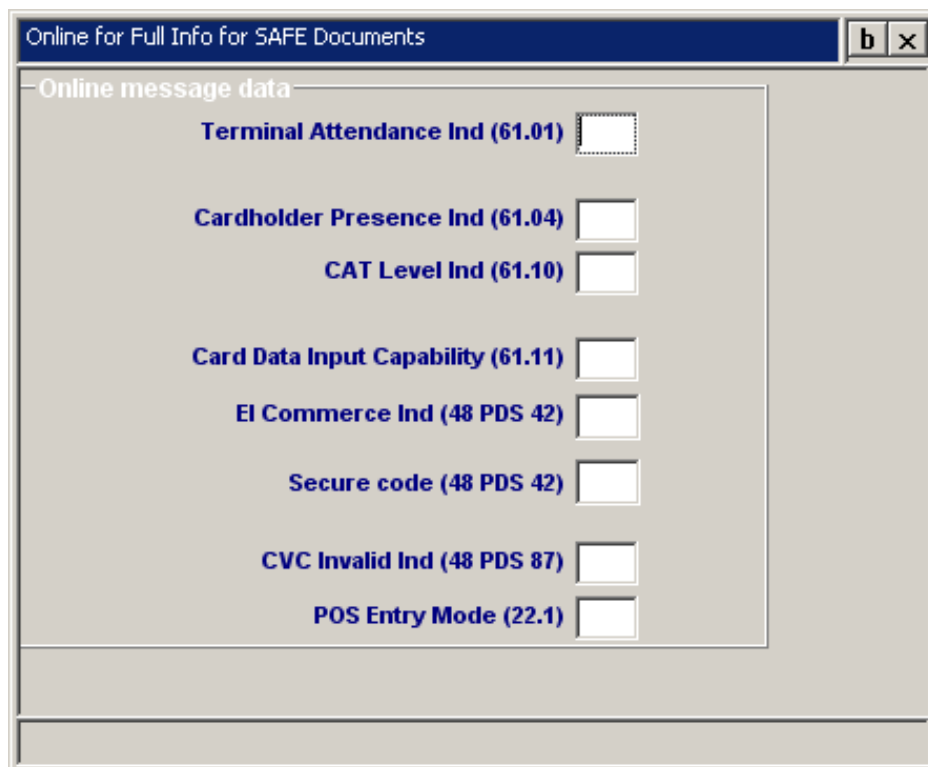
- *Record Type* – SAFE document type; this field is filled in according to the SAFE specification (see the description of the "Record Type" field in Mastercard documentation).
- *Fraud Type* – type of fraudulent transaction for which the SAFE document is being created. The field value is selected according to SAFE classification (see the description of the "Fraud Type Code" field in Mastercard documentation).
- *Sub Fraud Type* – additional information about the fraud type; the field value is selected according to SAFE classification (see the description of the "Sub-Fraud Type Code" in Mastercard documentation).
- *Card Type* – card type (see the description of the "Card Type" field in Mastercard documentation).
- *Chargeback Sent* – can have one of two values according to Mastercard requirements (see the description of the "Chargeback Indicator" field in Mastercard documentation):
  - "Yes" means that the issuer has already initiated (or is planning to initiate) a chargeback for the presentment.
  - "No" means that the issuer has not initiated (and is not planning to initiate) a chargeback for the presentment.
- *Delete Duplicates* – this field is filled in according to Mastercard requirements (see the "Delete Duplicates Flag" field description in Mastercard documentation) only for SAFE documents with "Confirmation" in the *Record Type* field. Possible values are "Yes" or "No".
- *First Reported On* – date when the cardholder reported the fraud to the issuing bank (see the "Date Cardholder Reported Fraud to Issuer" field in Mastercard documentation).

The form "→ SAFE for MC Inward Documents" also contains fields that cannot be edited and show the following information about a document:

- *Reg #* – SAFE document number; the number is generated by the system and corresponds to the "Audit Control Number" field (see Mastercard documentation); SAFE document numbers are unique within their date and sender's ICA number.
- *Direction* – contains "Outward" for outgoing SAFE documents and "Inward" for incoming ones.
- *Status* – status of a document exported to an external system (see the section "Document Posting Indices" of the document "Documents").
- *Is Ready* – indicates whether the SAFE document is active.
- *Merchant ID* – merchant ID.
- *ARN* – Acquirer Reference Number, transaction ID sent to the payment system by the acquirer.
- *Issuer ICA* – issuer ICA.
- *Acquirer ICA* – acquirer ICA.
- *Card Number* – card contract number.
- *SAFE File ID* – identifier of the logical file in which the original presentment was imported from the payment system.
- *Response* – shows whether the SAFE document was successfully processed by the payment system; filled in when a response is received from the payment system.
- *Response Codes* – for outgoing SAFE documents, this field contains additional information about the fraudulent transaction, for incoming documents it is filled in according to SAFE requirements (see the "Authorization Response Code" field description in Mastercard documentation).

Clicking the [Doc – Brief] button in the "→ SAFE for MC Inward Documents" form opens a form with information about the imported presentment for the SAFE document.

Clicking the [Online] button in the "→ SAFE for MC Inward Documents" form opens the "Online for Full Info for SAFE Documents", which contains field values from the authorization message.



#### *Parameters of the original document*

The system allows any of the parameters shown in the "Online for Full Info for SAFE Documents" form to be changed when creating a SAFE document.

After filling in the fields in the "→ SAFE for MC Inward Documents" form, click the [Approve] button to activate the SAFE document.

The [Safe Doc] button in the "MC Inward Documents" data table is used to access SAFE documents that were created for the corresponding incoming presentments.

## 2.2 Creating a Fraud Negative Report

If no fraudulent transactions were registered in the issuer's database since the beginning of a calendar month, the issuer must inform Mastercard of this by sending a Fraud Negative Report.

To create this report, select the menu item "MasterCard → MC. Outward Processing → Generate SAFE Negative Responses". As a result, a SAFE document with "Negative" in the *Record Type* field will be created.





Note that generation of a Fraud Negative Report depends on the value of the global parameter `SAFE_FDN_SEPARATE_DAY`. The parameter contains a day of the month used as a threshold value during report generation (see the section "`SAFE_FDN_SEPARATE_DAY`" in the document "Way4 Global Parameters").

## 2.3 List of SAFE documents

To access the list of all SAFE documents, select the menu item "MasterCard → MC. Fraud Management → SAFE Documents" to open the "SAFE Documents" form:

SAFE Documents										<< < > >>		13 of 17		X
Reg Number	Direction	Status	Record Type	Fraud Type	Response	Details	Fraud Posted	File ID	Acq Ref Number	Date				
609205101400001	Outward	Sent	Add	01 Stolen			14/10/2005	4302	7550042528300019830	14/10/05 21:41:38				
682305120900000	Outward	Sent	Add	00 Lost			09/12/2005	6650	7549965517100000030	09/12/05 16:23:14				
602708040300000	Outward	Sent	Add	04 Counterfeit Card Fraud			03/04/2008		7518614530530800000	03/04/08 10:49:11				
584105110400001	Outward	Sent	Add	00 Lost			28/10/2005	5437	7518614519219200000	04/11/05 13:01:53				
Ins	Del	Query	Full Info											

### Form for viewing SAFE documents

To access information about a SAFE document, select the corresponding row and click the [Full Info] button.

## 3 File exchange between Way4 and SAFE

This section describes procedures for exporting SAFE documents generated by the issuer and procedures for importing SAFE reports by the acquirer.

### 3.1 Exporting SAFE documents

To export SAFE documents, use the menu item "MasterCard → MC. Daily Procedures → MC. Outward Processing → SAFE Outward Processing" (see the section "[MC SAFE Outward Processing pipe parameters](#)").

The system names exported files "SAFE<YDDD>.O<NN>" and places them in the "<OWS\_WORK>\Data\Interchange\SAFE\_Out" directory.



If the value of the export pipe's EXT\_FILE\_NAME parameter is "Y", files being exported get a name in the format "SAFE<ICA><YDDD>.O<NN>", where ICA is the issuer's ICA number.

For troubleshooting issues that occur during file export, see the section "Troubleshooting file import/export" of the document "Mastercard Interchange Interface".

### 3.2 Importing reports from SAFE

To import SAFE reports, select the user menu item "MasterCard → MC. Daily Procedures → MC. Inward Processing → SAFE Inward Processing" (see "[SAFE Inward Processing pipe parameters](#)").

Before executing this menu item, the file received from SAFE with the name mask "safe????i??" must be copied to the "<OWS\_WORK>\Data\Interchange\SAFE\_Inc" directory. Execution of this menu item may be accompanied by display of the standard "Load" window with a list of files for loading. When an attempt is made to load a file that does not correspond to the mask, a window with an error message will be displayed on the screen.

For troubleshooting issues that occur during file import, see the section "Troubleshooting file import/export" of the document "Mastercard Interchange Interface".

## 4 SAFE pipe parameters

This section describes parameters of pipes used for file exchange between Way4 and SAFE.

### 4.1 MC SAFE Outward Processing pipe parameters

The MC SAFE Outward Processing (mc.safe\_outward\_processing) pipe is used with the following parameters:

Parameter	Default value	Parameter description
FILTER/[compatible_escaped_xml]	1=1	WHERE clause fragment added to a SELECT statement. By default, all records are exported that were prepared for export from the SAFE_DOC table with the "MC" channel and "Outward" direction.  Example: SAFE_DOC.ID = 123.
DISABLE_SOURCE_COUNT	N	If the value is "Y", preliminary counting of the number of processed records will be disabled. This must be approved by an OpenWay representative.
FILE_CODING	ASCII	File encoding.
COMMIT_INTERVAL	100	The parameter determines the number of DB records, after the processing of which the SQL COMMIT statement is executed. Changes to this parameter must be approved by an OpenWay representative.
BREAK_ON_ERROR	N	If the value is "Y", export is terminated if errors occur. Otherwise (by default), an incorrect document gets the "Suspended" status and export of the remaining documents continues.

Parameter	Default value	Parameter description
LINE_TERMINATOR	\u000d\u000a	Line terminators. If Unix line terminators are required, specify "\u000a".
OUTPUT_DIRECTORY		Exported file directory. Mandatory parameter.
USE_MTRANSACTION	N	If the value is "Y", the "Transaction Amount in Cardholder Billing Currency" and "Cardholder Billing Currency Code" fields are filled in with information from macrotransactions, not from document source data.
CHANGE_CURR_OUT		Redefines the currency code used by the payment system to the code used in Way4. For example, if the value is "643810", the code "810" will be used in the database instead of "643". Instead of using this parameter, it is recommended to set up redefinition of the currency code according to the recommendations in the section "Redefining Currency Parameters" of the document "Currency Conversion".
FILE_REF_DATE	SYSTEM	Determines the date that will be exported in the file header. Possible values: "BANK" – banking date, "SYSTEM" – system date.
START_FILE_SEQ	1	Determines the number starting with which exported files will be numbered within a day. Used for export from different systems to ensure file names do not overlap.
EXT_FILE_NAME	N	When the value is "Y", "ICA" is added to the filename. For example, "SAFEYICADDD.ONN" will be used instead of "SAFEYDDD.ONN".

## 4.2 SAFE Inward Processing pipe parameters

The SAFE Inward Processing (mc.safe\_inward\_processing) pipe is used with the following parameters:

Parameter	Default value	Parameter description
SOURCE_DIR		Path to the directory with imported files. Mandatory parameter.
PROCESSED_DIR	Same as the SOURCE_DIR parameter value	Path to the directory with successfully imported files.
ERROR_DIR	Same as the SOURCE_DIR parameter value	Path to the directory that contains files imported with errors.
FILE_MASK	SAFE*.I*	File name mask for imported files.
FILE_CODING	ASCII	File encoding.
COMMIT_INTERVAL	1000	The parameter determines the number of processed records in a file after which the SQL COMMIT statement is executed. Changes to this parameter must be approved by an OpenWay representative.
FILE_MODIFIER	=.->X	The parameter sets a change in the name of a processed file. By default, the first letter of a file name is replaced with "X".
LINE_EXTRACT_METHOD	EOL	Method for determining the end of a record: "FIXED_LENGTH" – by record length, "EOL" – by line terminator characters set as the value of the LINE_TERMINATOR parameter. It is recommended to set up file import with the end of line character as a record separator.
LINE_TERMINATOR	0D0A	Line terminators. If Unix line terminators are used, specify "0A".
LINE_LENGTH	0	Sets line length. Used if the value of the LINE_EXTRACT_METHOD parameter is "FIXED_LENGTH".

Parameter	Default value	Parameter description
FDP_CHECK_DUPL_DATE	BANK	Only one file with FDP (suspicious amount) records can be imported per date. This file's Transmission ID field is filled in with "9" characters. The parameter determines the type of date for which file uniqueness is controlled: "BANK" – bank date, "SYSTEM" – system date.
DSP_CONFIRMATION_PRC	N	If the value is "Y", confirmation for a sent SAFE document will be processed using the Dispute Assistant module (for customers with a license for this module).