Operation Manual

Mastercard "Clearing&Settlement" File

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Contents

This document describes the structure of a Mastercard file containing clearing and settlement information ("Clearing&Settlement" file) and the ways file settlement data can be processed in Way4.

The document is intended for Way4 users (bank or processing center employees) who are responsible for interaction with payment systems.

For general information on the structure of the "Clearing&Settlement" file, cash flow in NOSTRO contract accounts (including account reconciliation) during file processing, and setup of issuing interchange fees, see the document "Payment system settlement in Way4".

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

- "Way4 Global Parameters"
- "Interchange Routing"
- "Documents"
- "Mastercard. Message codes for processing "Clearing&Settlement" files"
- "Mastercard Interchange Interface".

The following notation can be 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 and information are marked as follows:

> ⚠ Warnings about potentially hazardous situations or actions.

> ⓘ Messages with information about important features, additional options, or the best use of certain system functions.

1   File structure

To ensure settlement, Mastercard provides its members with an "Integrated Product Messages" file (IPM). The file structure is described in the payment system's document "IPM Clearing Formats".

The IPM file is imported to Way4 using a special pipe. For more information, see the document "Mastercard Interchange Interface".

In addition to clearing messages, the pipe also processes the following types of IPM file settlement data (Message Type Identifier (MTID)=1644; Function Code – DE 24):

- 685: Financial Position Detail (1644-685)
- 688: Settlement Position Detail (1644-688)
- Message Reason Code – DE 25
    - 6861: Acknowledgement Reconciliation – incoming transactions (Inc)
    - 6862: Notification Reconciliation – outgoing transactions (Out)

> ⚠️ A file's settlement data can be imported to Way4 in two modes:
>
> - Mode 1 (default behavior): message code values of the corresponding messages start with "1644680%", "1644685%", and "1644688%".
> - Mode 2 (recommended): message code values of the corresponding messages start with "S1%" and "S2%" (used for data at the file's total and detailed levels, respectively).
>
> To use message codes starting with "S1%" and "S2%", set the NEW_SETTL_MSG_CODES = Y parameter for the "Clearing&Settlement" file import pipe.

There are two levels of settlement information in a file:

1. The total level (Settlement Position Detail) includes a payment system member's settlement positions (total net clearing position), i.e. the payment system member's activity:

    - Total amount for all outgoing messages – "Net Interchange Total Out"
    - Total amount for all incoming messages– "Net Interchange Total Inc"

    > ℹ️ In Way4, it is possible to import documents which contain details for total settlement amounts shown at the total level (Net Interchange Total Out/Net Interchange Total Inc). For more information, see the section "Setup of the file's total level".
    >
    > By default, details are not shown at the total level.

2. The detailed level (Financial Position Detail) provides information about transactions shown at the total level, grouped by transaction types. For instance, amounts of:

- Primary and secondary presentments separately for different transaction types

- Chargebacks and 2nd Chargebacks

- Correction documents

- Interchange documents (Fee Collections, Funds Disbursement)

- Payment transaction fees

- ATM transaction fees

- Cash withdrawal fees

- Other fees

> (i) Settlement amounts for dispute documents (including fees) can be imported in Way4 separately for different transaction types. For more information, see the section "Setup of the file's detailed level".

When importing detailed level messages, Way4 registers two documents:

- "Ichng Detail", which contains the value from the PDS0394 element (Amount, Net Transaction) in the *Settlement amount* field.

- "Reimb Fee Detail", which contains the value from the PDS0395 element (Amount, Net Fee) in the *Settlement amount* field.
  If high precision fee amounts are provided to the issuer and the USE_EXT_PRECIS_FEE=Y parameter is set for the "Clearing&Settlement" file import pipe, fee amount values will be copied from the PDS0399 element (Amount, Net Extended Precision). For more information, see the section "Issuing interchange fee" of the document "Payment system settlement in Way4". Documents with the "Reimb Fee Detail" type are only generated for non-zero fee amounts.

2   Setup of the file's total level

By default, Way4's standard configuration includes the following message codes for importing a file's total level data (see the section "File structure"):

- S1I-T--- Net Interchange Total Out
- S1O-T--- Net Interchange Total Inc

It is possible to import documents containing details for total settlement amounts of the total level:

- "Acq Interchange Total" (Message Code = S1-AI---)
- "Iss Interchange Total" (Message Code = S1-II---)
- "Acq Reimbursement Fee Total" (Message Code = S1-AF---)
- "Iss Reimbursement Fee Total" (Message Code = S1-IF---)
- "Fee Collection and Funds Disbursement Total" (Message Code = S1--I--F)

This allows transaction accounting depending on a payment system member's activity: separately by acquirer transactions, issuer transactions, and fees (Total Acquirer/Total Issuer/Fee Collection and Funds Disbursement), and makes it possible to support complex accounting. Data is generated using the PDS0394 element for the total transaction amount and the PDS0395 element for fees.

For setup:

1. Set the S1_DTLS = Y parameter for the "Clearing&Settlement" file import pipe (OpenWay → MasterCard → MC.Daily Procedures → MC.Inward Processing → IPM Inward Processing):

    > (i) The S1_DTLS = Y parameter can only be used together with the NEW_SETTL_MSG_CODES = Y parameter (when using messages whose code values start with "S1%" and "S2%").
    >
    > When this parameter is set, the messages "Net Interchange Total Out" and "Net Interchange Total Inc" will not be used during file import and must be deleted from Way4, see item 3 below.

2. In the "Message Types" form, register messages for each transaction type (Full → Configuration Setup → Transaction Types → Transaction – ALL → [Msg Types]):

    - For "Acq Interchange Total" transactions:

- For "Iss Interchange Total" transactions:

- For "Acq Reimbursement Fee Total" transactions:

- For "Iss Reimbursement Fee Total" transactions:

- For "Fee Collection and Funds Disbursement Total" transactions:

3. In the "Message Types" form, delete default messages: "Net Interchange Total Out" and "Net Interchange Total Inc" (Full → Configuration Setup → Transaction Types → Message Types – All):

For more information on transaction and message types, see the document "Documents".

3 Setup of the file's detailed level

By default, settlement amounts for Mastercard dispute documents (including the corresponding fees) are imported to Way4 without being split by transaction type. They are only split according to the payment system member's activity:

- Acq Ichng Detail Secondary Out/Iss Ichng Detail Secondary Inc + Acq Reimb Fee Detail Secondary Out/Iss Reimb Fee Detail Secondary Inc
- Acq Ichng Detail Secondary Inc/Iss Ichng Detail Secondary Out + Acq Reimb Fee Detail Secondary Inc/Iss Reimb Fee Detail Secondary Out

To import documents containing details for total amounts, set the SETTL_SEC_BY_TT = Y parameter for the "Clearing&Settlement" file import pipe (OpenWay → MasterCard → MC.Daily Procedures → MC.Inward Processing → IPM Inward Processing). Accordingly, settlement amounts for dispute documents and fees will be shown separately for different transaction types (the list below does not contain the corresponding fee types – "Reimbursement Fee"):

- Payments – Acq Ichng Detail Secondary Retail Out/Inc or Iss Ichng Detail Secondary Retail Inc/Out
- Purchases with cash back – Acq Ichng Detail Secondary Retail with CashBack Out/Inc or Iss Ichng Detail Secondary Retail with CashBack Inc/Out
- ATM cash withdrawals – Acq Ichng Detail Secondary ATM Out/Inc or Iss Ichng Detail Secondary ATM Inc/Out
- Terminal cash withdrawals – Acq Ichng Detail Secondary Cash Out/Inc or Iss Ichng Detail Secondary Cash Inc/Out
- Special payments (for example, in online casinos) – Acq Ichng Detail Secondary Unique Out/Inc or Iss Ichng Detail Secondary Unique Inc/Out
- Purchase returns – Acq Ichng Detail Secondary Credit Out/Inc or Iss Ichng Detail Secondary Credit Inc/Out
- Card-to-card transfers (P2P) – Acq Ichng Detail Secondary CH Payment Out/Inc or Iss Ichng Detail Secondary CH Payment Inc/Out

> ⚠ When the SETTL_SEC_BY_TT = Y parameter is set, information for the following messages will not be imported to Way4:
>
> - Acq Ichng Detail Secondary Out/Iss Ichng Detail Secondary Inc + Acq Reimb Fee Detail Secondary Out/Iss Reimb Fee Detail Secondary Inc
> - Acq Ichng Detail Secondary Inc/Iss Ichng Detail Secondary Out + Acq Reimb Fee Detail Secondary Inc/Iss Reimb Fee Detail Secondary Out
>
> These messages must be deleted as described in the section "Setup of the file's total level".
>
> This parameter can only be used together with the NEW_SETTL_MSG_CODES = Y parameter (i.e. when using messages whose values start with "S1%" and "S2%"). For more information, see the section "File structure".
>
> When the SETTL_SEC_BY_TT = Y parameter is set, the NEW_SETTL_MSG_CODES = Y parameter will be set automatically.