

Operation Manual

Daily Procedures

03.53.30

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Contents

1		Executing daily procedures	6
2		Start of Day procedure	8
	2.1	Start of Day step by step	8
	2.1.1	Posting of macrotransactions	9
	2.1.2	Daily standing payment orders	10
	2.1.3	Setting banking date	11
	2.1.4	Interest accrual	14
	2.1.5	Contracts Daily Update Procedure	15
	2.1.6	Entering new FX rates	17
	2.1.7	Executing the "Start Correcting Service Approved" Procedure	18
	2.1.8	Synchronizing information about contract Events	18
3		Processing incoming payment systems data	19
4		Exporting outgoing data for payment systems	20
5		Document processing	21
	5.1	Document processing step by step	22
6		Loading RBS files	24
	6.1	RBS inward processing step by step	24
7		Exporting RBS Files	26
	7.1	RBS outward processing step by step	26
8		Closing and exporting GL entries	29
9		Reserves accrual	30
10)	Loading information into BIN table	31
11		Loading stop lists	32
12		Parallel run	33
13	}	Set FX rates	36



14 History of changes to the banking date

37



Way4 Daily Procedures are a set of operations for closing and opening the banking day and for the daily processing of financial information.

This document is intended for Way4 users (bank or processing center employees) currently working with the system. The document contains information about the main operations for processing financial information during daily procedures.

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

- · Interchange Routing
- · CBS Interface
- Way4 Global Parameters
- Documents
- Currency Conversion
- Acquiring Module. User Manual
- · Issuing Module. User Manual
- Interest Accrual
- SAFE Support
- Standing Payment Orders
- DB Manager Manual
- · Working with VISA FRS Documents
- · Way4 Stop Lists
- Events
- Way4 Account Schemes
- Way4 Accounting
- · Loan Loss Reserves
- Distributed Processing. Operation Manual
- Way4 Statistical Report Data Preparation
- · Way4 Dictionaries
- Miscellaneous documents about the format for file exchange with the banking system.

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.





 $\label{lem:messages} \mbox{ Messages with information about important features, additional options, or the best use of certain system functions.}$



1 Executing daily procedures

Daily Procedures are run through the user menu item group "Full → Daily Procedures".

Daily Procedures are grouped in the system according to their operations' functions as follows:

- · Start of Day
- · Inward Processing
- RBS Inward Processing
- Document Processing
- · Outward Processing
- · RBS Outward Processing

The "Daily Procedures" menu group includes the following groups and menu items:

- "Start of Day Step By Step" for more information, see the section "Start of Day step by step".
- "Document Processing Step by Step" for more information, see "Document processing step by step".
- "Reserves Accrual" calculates the loan reserves account balance (see "Reserves accrual").
- "Load BIN Tables and Handbooks" loads information into the BIN table (see "Loading information into BIN table").
- "Load Stop Lists" loads stop lists (see "Loading stop lists").
- "Offline Limiters Processing" deferred processing of limiters (see the section "Deferred Processing of Limiters" of the document Usage Limiters").
- "General Ledger Processing" closes GL entries when the standard RBS export procedure is not performed (see "Closing and exporting GL entries").
- "Default Start of Day" run a group of daily procedures (see "Start of Day procedure").
- "Document Processing" run the group document processing procedures (see "Document processing").
- "Default RBS Outward Processing" run the group of procedures for exporting files to the banking system (see the section "Exporting RBS Files").
- "FX Rate History" opens the FX Rate History table (see the section "FX rate history" of the document "Currency Conversion").
- "Log of opened banking dates" history of changes to the banking date (see "History of changes to the banking date").
- "Consistency Points" CLOSE_GL consistency points created to determine the reason for generating entries with a date in the past (for more information, see the section "GL Trace Exceptions" of the document "Way4 Accounting).
- Processing Status Report creates reports on documents with status "Declined", "Suspended",
 "Rejected", on macrotransactions with status "Declined" and contracts with status "Not Ready".
- "Yearly Address Renew" reactivates temporary addresses that are only active during a specific period of a calendar year (see the section "Client and contract address support" of the document "Issuing Module").



The system allows two methods for executing Daily Procedures:

- Group execution of operations by selecting the "Default start of Day" menu item with the sign ("green button"). This method is recommended as the standard method.
- Step by Step execution of operations in a group of Daily Procedures by selecting the required item in a menu item group. For the list of available menu items (procedures) and their purposes, see the section "Start of Day step by step". This method is used if a non-standard situation arises when executing a group of Daily Procedures.



Note that a number of Daily Procedures like RBS Outward Processing (see "Exporting RBS Files") is run according to the rules of a specific bank, and require additional configuration of user menu items and item groups. Therefore, this document describes the standard system configuration and may be used to prepare user instructions for configurations specified according to individual needs.



2 Start of Day procedure

To run the Start of Day procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Default Start of Day" (see the section "Executing daily procedures").



Starting from version 03.52.30, the "Default Start of Day" menu item includes the "Merchant Statement Prepare" procedure that can be only run if there is a separate agreement with OpenWay.

Without this agreement, the procedure is not run, and the message "Merchant Statement Interface is not configured" is logged to the process log.



Note that these procedures in the system include operations that are executed both when closing and opening the banking day. End of day procedures are run within this procedure group right before the new banking date is entered, and start of day procedures are run right after the new date is entered (see "Start of Day step by step").

Group running of these procedures is accompanied by a screen with a progress bar for each process (see the section "DB Manager Processes" of the document "DB Manager Manual") and is interrupted by the form for setting a new banking date (see "Setting banking date"). After the banking date is set, the procedures resume, and if the procedures are successful, the "Start of Day Complete" information message will be displayed.



If the system generates errors while executing these procedures, a window with the corresponding error message will be displayed on the screen. After the error is eliminated, procedures may be executed step by step, starting with the procedure that generated the error message (see "Start of Day step by step").

2.1 Start of Day step by step

To execute Start of Day procedures step by step, select "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step".

This group includes the following procedures:

• "Posting" – processing of macrotransactions, that is, transfer of funds between contract accounts (see "Posting of Macrotransactions").



- "Daily Standing Payment Orders" processing of daily standing payment orders (see "Daily standing payment orders").
- "Set Banking Date" set a banking date (see "Setting banking date").
- "Interest Accrual" calculate predicted interest (see "Interest accrual").
- "Contracts Daily Update" daily update procedure for contracts (see "Contracts Daily Update Procedure").
- "Reset FX Rates" enter new FX rates (see "Entering new FX rates").
- "Start Correcting Service Approved" technical procedure for optimizing internal processes in Way4 (see "Executing the "Start Correcting Service Approved" Procedure").
- "Requested Event Types Check" estimates the number of Event types and time required to process them during the "Requested Events Uploading" procedure. Recommended for use before running the "Requested Events Uploading" procedure; after the procedure has been executed, the list of Event types must be empty.
- "Requested Events Uploading" synchronizes information about certain Event types used by contracts (see "Synchronizing information about contract Events"). This process speeds up execution of other processes in the system (processing of macrotransactions, processing contracts, accruing loan reserves, etc.). The procedure is recommended on a daily basis.
- "Merchant Statement Prepare" generates a merchant statement (the functionality is provided according to a separate agreement with OpenWay).
- "Recycle Num Seq Cache" returns a pool of numbers that were skipped during automatic numbering of Way4 objects to a range available for subsequent use (for example, when numbering Visa outgoing files in parallel. The functionality is provided according to a separate agreement with OpenWay).



Note that to avoid data corruption in the database, the Start of Day Step by Step procedures should be run in the order as described above.

2.1.1 Posting of macrotransactions

To run this procedure, select the user menu item "Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Posting" (see the section "Start of Day step by step").

While running the procedure, the system posts macrotransactions with a current or past posting date.

The macrotransaction posting procedure may be run several times a day, but not less than once a day before a GL entry is created.





Macrotransactions are posted according to the value of the ONLINE_NORMALIZATION global parameter (see the document "Way4 Global Parameters"). If the parameter's value is "Y" (Yes), secondary macrotransactions for limit normalization can be generated when posting macrotransactions (see the sub-section "Limit Normalization" of the section "Full Information about Account Scheme Templates" of the document "Way4 Account Schemes") that will also be posted during this procedure. If the parameter's value is "N" (No), normalization macrotransactions are created and posted during the Contracts Daily Update procedure (see "Contracts Daily Update Procedure") or when a special user menu item "Full → DB Administrator Utilities → Special Contract Utilities → Limit Normalization" is used.

For more information about posting of macrotransactions, see the section "Posting Documents and Solving Typical Problems" of the document "Documents".

2.1.2 Daily standing payment orders

Processing of standing payment orders is generation of financial documents for transferring funds and posting of these documents, that is moving funds in contract accounts.

To process standing payment orders without using parallel run mode, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Daily Standing Payment Orders" (see the section "Start of Day step by step").

The "Daily Standing Payment Orders" procedure is used to process standing payment orders with the following parameters:

- Order Type = "Downgrade To"/"Upgrade To"/"Downgrade To (Single)"/"Upgrade To (Single)".
- Order Category = "General", "Inherited", "Personal".
- Date Event = "Daily".



When executing the procedure for accounts to which standing payment orders belong, due normalization is performed.

For standing payment order parameters, see the section "Configuring Standing Payment Orders" of the document "Standing Payment Orders".

If standing payment orders must be processed in parallel run mode, instead of the "Daily Standing Payment Orders" menu item, use:

- "Full → DB Administrator Utilities → Special OpenWay Utilities → Parallel Run → Daily Standing Payment Orders By Top Contract".
- "Full → DB Administrator Utilities → Special OpenWay Utilities → Parallel Run → Daily Standing Payment Orders By Main Contract".
- "Full → DB Administrator Utilities → Special OpenWay Utilities → Parallel Run → Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Top Contract".



 "Full → DB Administrator Utilities → Special OpenWay Utilities → Parallel Run → Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Main Contract".

For a detailed description of these menu items, see the section "Parallel run".

2.1.3 Setting banking date

This section contains information about setting the banking date in one of two modes:

- · Combined banking date mode.
- Two-phased banking date mode.

2.1.3.1 Combined banking date mode

This procedure is included in the standard set of Daily Procedures and allows users to set a banking date that includes both close of day and start of day procedures. This means that when this procedure is used, the Contracts Daily Update procedure (see "Contracts Daily Update Procedure") is executed once a day at the start of the banking day, that is, after the new banking date is set during the group start of day procedure (see "Start of Day procedure"). It is possible to execute Daily Procedures in two-phased banking date mode "Two-phased banking date mode"). To run this procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Set Banking Date" (see the section "Start of Day step by step").

After this, the "Set New Banking Date" form will be displayed to enter a new banking date:

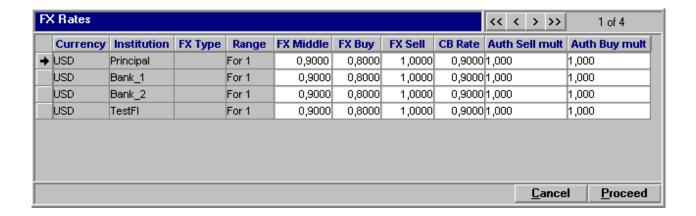


The New Banking Date field by default shows the next banking date after the current one, taking into consideration weekends, holidays, and exceptions specified by the user in the "Business Calendar" table ("Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Business Calendar").

After setting a new banking date, the user should click the [Proceed] button. To cancel the operation, click [Cancel].

After confirming the new banking date, the "FX Rates" table grid for entering a new FX rate will be displayed (see the figure below). The table will show the last entered rates (active at the current moment) or, if future rates loading is used, values of the rates loaded earlier for the set banking date. On future rates loading, see the document "Loading FX Rates".







Note that depending on the user menu setup, this table may look differently from the one shown below, used for entering all FX rates for all financial institutions.

The user can enter data in the following columns of this table:

- FX Middle FX middle rate.
- FX Buy buy rate; this value is used when the FX Rate Type field of the Service according to which a document is processed contains the "Buy/Sell" value, the contract has no account in the transaction currency with the type specified in the Service, and either of the following conditions is met:
 - · An account with a foreign currency is credited
 - An account with the local currency is debited.
- FX Sell sell rate; this value is used when the FX Rate Type field of the Service according to which a document is processed contains the "Buy/Sell" value, the contract has no account in the transaction currency with the type specified in the Service, and either of the following conditions is met:
 - · An account with a foreign currency is debited
 - · An account with the local currency is credited.
- CB Rate rate set by the Central Bank (the national bank) of the country; by default this field is set to the middle rate. For example, the rate value set in this field can be used for report generation.
- Auth Sell Mult sell rate multiplier used during authorization to calculate the blocked amount
 converted from a local currency. This value may be used to compensate the difference between
 the blocked amount and the amount posted to contract accounts, which arises because of the
 difference in the conversion rates on the authorization date and the financial document
 processing date. In this case, blocked amounts are calculated according to the following formula:

- FC (foreign currency)
- LC (local currency)



For example, to increase blocked amounts by 2%, specify value "0.98" in this field; the default value is "1" (blocked amounts are not changed).

Auth Buy Mult – buy rate multiplier used during authorization to calculate the blocked amount
converted to a local currency. This value may be used to compensate the difference between the
blocked amount and the amount posted to contract accounts, which arises because of the
difference in the conversion rates on the authorization date and the financial document
processing date. In this case, blocked amounts are calculated according to the following formula:

Blocked amount (LC) = Transaction amount (FC) * Local currency rate * Auth Buy mult

- FC (foreign currency)
- LC (local currency)

For example, to increase blocked amounts by 2%, specify value "1.02" in this field; the default value is "1" (blocked amounts are not changed).

FX rates may be set several times a day according to bank requirements. In this case, the banking date is set several times without changing its value.

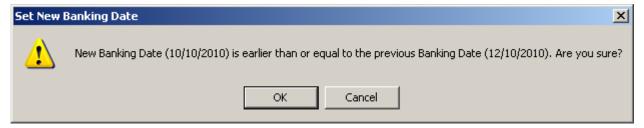
The current FX rates used by the system are shown in the table "Full \rightarrow Daily Procedures \rightarrow FX Rate History". By clicking the [FX History] button in this table, it is possible to access the FX history for a selected currency and view the name of the user who set the rate.



Note that rates may be set through a special user menu path, "Full → DB Administrator Utilities → Special OpenWay Utilities → Set FX". For more information, see "Set FX rates".

After entering the required values in the table, continue with setting the banking date by clicking the [Proceed] button. To cancel the procedure, click [Cancel].

If the user sets the value of a date that is earlier than or equal to the current date, the corresponding warning will be displayed:





In production systems it is forbidden to enter a date earlier than the current banking date! For more information about the role of the node in which Way4 is installed, see the section "System Instances" Dictionary" of the document "Way4 Dictionaries".

Note that if the new banking date is earlier than the current banking date, serious data corruption could occur in the database. It is permitted to enter a value equal to the current banking date, for example, if it is necessary to change the currency rate several times a day.



To continue setting the new banking date, click [OK], or cancel by clicking the [Cancel] button.

If the banking date the user has entered is earlier than the current calendar date, the corresponding warning will be displayed:

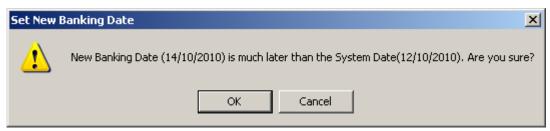




This is a non-standard input value and requires that the banking date be reentered.

To continue setting the new banking date, click [OK], or cancel by clicking the [Cancel] button.

If the user enters a date more than one day ahead of the current calendar date, a corresponding warning will be displayed:



This situation is only possible if the start of day procedures are executed at the end of the current date according to the bank's regulations.

To continue setting the new banking date, click [OK], or cancel by clicking the [Cancel] button.

2.1.3.2 Two-phased banking date mode

Two-phased banking date mode means that the contracts daily update procedure is executed both within the close of day procedure, before the new banking date is set, and within the start of day procedure, after the new banking date is set (see "Contracts Daily Update Procedure"). Contracts daily update before entering a new banking date at the close of day (evening) is executed in a special banking date set mode. In this mode, the standard banking date set procedure (see "Combined banking date mode") during a group execution of start of day procedures should be replaced with the "Full \rightarrow DB Administrator Utilities \rightarrow Special OpenWay Utilities \rightarrow 2-phased Set Banking Date" procedure according to agreement with OpenWay.

2.1.4 Interest accrual

To execute this procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Interest Accrual" (see the section "Start of Day step by step").



This procedure is used when the bank performs the prediction of interest accrual in client accounts for future billing cycles. To determine the amount of predicted interest, special bank accounts are used (see "Setup of Parameters in Account Templates" of the document "Interest Accrual"). The procedure selects templates of accounts set for daily interest accrual and where the last interest accrual date is less than the current banking date. For these accounts, macrotransactions that are used to transfer funds from the bank's expense account to the bank's interest account are created and posted.

2.1.5 Contracts Daily Update Procedure

The contracts daily update procedure is executed in various ways, depending on how the banking date is set, in combined banking date mode, or in two-phased banking date mode.

In combined banking date mode, daily contract updating is executed as a separate procedure in the start of day group of procedures. In this case, the indicated procedure is executed after the new banking date is entered and is called morning contracts update.

In two-phased banking date mode, contracts are updated twice daily. Besides the morning contracts update, an evening contracts update is executed before the new banking date is set in the special set banking date procedure (see "Two-phased banking date mode").

The evening contracts update procedure contains several restrictions that contrast with the morning update procedure.

To run the morning contracts update procedure as a separate procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Contracts – Daily Update" (see the section "Start of Day step by step").

The Contracts Daily Update procedure includes operations for interest accrual at the close of the interest accrual period, processing of all types of standing payment orders, charging recurring fees, for example, a yearly card service charge, etc. This procedure is applied to contracts not yet processed. As a result of this procedure the *Last Scan* contract parameter is updated.



Card contracts registered for an account contract with the STOCK tag are excluded from the "Contracts Daily Update" procedure, since transactions with these contracts are not made before cardholders receive cards (for more information, see the section "Processing contracts" of the document "Issuing Instant Cards").

The selection for the daily processing procedure includes main contracts with a value other than "Close" in the Is Ready field (without higher-ranking contracts in a "Main/Sub" hierarchy) whose opening date and date in the *Last Scan* parameter is earlier than the banking date. In addition, the selection will include all contracts in a "Liability" hierarchy that meet the same conditions as main contracts. Relation type for contracts in a "Liability" hierarchy is not considered.

Subcontracts related to a higher-ranking contract are processed according to:

• "Main/Sub", sequentially down the hierarchy, that is processing starts with the main (higher-ranking) contract and ends with subcontracts. When processing a subcontract, a limited set of operations is applied to it, for example: charging recurring fees, processing individual/inherited



- payment orders, processing/closing Events, etc. (that is, only individual actions related to this contract are performed).
- "Liability", sequentially up the hierarchy, that is processing starts with subcontracts and ends with the main contract. When processing a Liability subcontract, all operations included in the daily processing procedure are applied to it.

Operations included in the Contracts Daily Update procedure:

- Applying changes made to Service Packages refreshes parameters of usage limiter for contracts, also refreshes associated Service Packages, if their changes were not applied after selecting the user menu item "Full → Configuration Setup → Products → Apply Service Packs Changes".
- Applying changes made to standing payment orders, updates standing payment orders parameters according to the changes made on the contract level.
- Applying changes made to Account Schemes refreshes contract accounts properties, creates/
 deletes contract accounts, executes GL entries when the GL# defined in the account template
 changes, limit normalization, refreshes payment order parameters according to changes made on
 the Account Scheme level, refreshes contract balances. This operation is executed through the
 user menu item "Full → Configuration Setup → Products → Apply Account Scheme Changes".
- Close Contract Billing Cycle creates and posts macrotransactions for interest accrual in contract accounts, creates and posts macrotransactions for due normalization in accounts with consideration of the POST_DUE global parameter's value (see the document "Way4 Global Parameters"), and opens a new billing cycle, that is, sets a new date for closing the contract's billing cycle according to Account Scheme parameters. If the contract close date falls before the billing cycle close date, the contract close date will be the billing cycle close date. When closing the billing cycle, contracts are processed considering the CONTRACT_READY_RULE global parameter's value (see the document "Way4 Global Parameters"). This operation is performed only during the morning contracts update procedure.
- Creating and processing macrotransactions for due normalization types not related to the close of the billing cycle: "Value Date Due", "Payment Due", "Long Payment Due", "Sliding", also "Sliding + Clear" when the account balance is not equal to zero. These are posted according to the PAYMENT_DUE_ADVANCE global parameter's value (see the document "Way4 Global Parameters"). For more information about due normalization, see the subsection "Ageing" of the section "Full Information about Account Scheme Templates" in the document "Way4 Account Schemes".
- Processing for all payment order types for contracts, creating documents and posting of
 macrotransactions. This operation is performed during the evening or morning contracts update
 procedure depending on the ORDER_IN_START_OF_DAY global parameter's value (see the
 document "Way4 Global Parameters").
- Processing Events. For details on Events, see the document "Events".
- Recurring fees charged at the close of the contract billing cycle, that is, creating and posting
 macrotransactions for miscellaneous fees. This operation is executed only during the morning
 contracts update procedure.





Note that recurring fees are not charged for contracts with the "Account Closed" or "Card Closed" status, or for those with any registered status (Full \rightarrow Configuration Setup \rightarrow Contract Types \rightarrow Contract Statuses) that has the "Invalid" value in the *Is Valid* field of the "Contract Statuses" form.

- Closing account and card contracts whose *Date Expire*, *Expire* is earlier than the date of the banking day being opened. Contracts are closed when a new banking day opens.
- Loading balances from the banking system (if provided). This operation is executed only during the morning contracts update procedure.
- Executing user-customised procedures (cust_eod_after).

Additionally, in Way4 it is possible to run the "Contracts – Daily Update" procedure forcibly during document (macrotransaction) processing for this contract. After the procedure has been started, evening contracts update is executed, and then morning contracts update is executed.

The functionality can be applied for the following contracts:

- Contracts of all financial institutions using the FORCE_CDU global parameter (for more information, see the section "Procedure for Closing the Banking Day" of the document "Way4 Global Parameters").
- Specific financial institutions using the FORCE_CDU tag specified in a financial institution in the Special Parms field of the "Details for <financial institution name>" form (Full → Configuration Setup → Main Tables → Financial Institutions → [Details]).



Before configuring the functionality, contact OpenWay Customer Support for further advice.

When the "Extra Limit Normalization" procedure is used, all financial institutions of the source and target contracts in a Liability hierarchy must have the same value of the FORCE_CDU parameter (for more information, see the document "Repayment of debt from other contracts (Direct Debit)"; provided according to a separate agreement with OpenWay).

2.1.6 Entering new FX rates

To execute this procedure, select "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Reset FX Rates" from the user menu.

As a result, the "FX Rates" grid form for entering new FX rates will open (see the subsection "Combined banking date mode" of the section "Setting banking date"). For the purpose of this form's fields, see the section "Setting banking date".



2.1.7 Executing the "Start Correcting Service Approved" Procedure

"Start Correcting Service Approved" is a technical procedure for optimizing internal processes in Way4. Executing the procedure does not affect transaction processing when selecting Services.

To execute the procedure, select "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Start Correcting Service Approved" from the user menu. As a result, the *Is Active* field in the "Full Info for ServiceAppr for <Service Package name>" form is set to "Yes" (Full \rightarrow Configuration Setup \rightarrow Products \rightarrow Issuing Private Products \rightarrow Private Card Service Packs \rightarrow [Details] \rightarrow [ServiceAppr]).

2.1.8 Synchronizing information about contract Events

When the "Requested Events Uploading" procedure is run, information about specific types of Events that are used by the contract is synchronized (certain data is duplicated from the USAGE_ACTION table to the ADD_PACK_INC table). As a result, processes executed for a large number of contracts simultaneously can determine more quickly whether an Event is active. This leads to an increase in the speed of executing other processes in the system (processing contracts, processing macrotransactions, accruing loan reserves, etc.). When the process is repeated, changes that have taken place since the last execution of the process will be entered in the ADD_PACK_INC table. For a detailed description of the "Requested Events Uploading" procedure, see the section "Requested Event Uploading" Procedure" of the document "Events".

To execute this procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Start of Day Step by Step \rightarrow Requested Events Uploading".



The first time the process is run (or the system configuration is changed) it may take a long time to execute. Subsequently running the process will take significantly less time.



3 Processing incoming payment systems data

Incoming data is processed by procedures unique for every Interchange interface.

Rules of processing Visa and Mastercard incoming information are described in the sections "Processing Incoming Transactions" of the document "Visa Interchange Interface" and "Processing incoming transactions" of the document "Mastercard Interchange Interface", respectively.



4 Exporting outgoing data for payment systems

Outgoing data is exported by procedures unique for every Interchange interface.

Rules of exporting Visa and Mastercard outgoing information are described in the sections "Exporting Outgoing Transactions" of the document "Visa Interchange Interface" and "Exporting outgoing transactions" of the document "Mastercard Interchange Interface", respectively.



5 Document processing

To run the group document processing procedures, select the user menu item "Full \rightarrow Daily Procedures \rightarrow Document Processing" (see the section "Executing daily procedures").



These procedures may be run several times a day according to bank regulations. If document processing is run once a day, these procedures must be run before the start of day group of procedures (see "Start of Day procedure").

The standard group document processing procedures includes the following:

- "Accept Documents" document processing step where documents are checked and macrotransactions are created.
- "Posting" processing of macrotransactions, that is, transferring funds between contract accounts (see the section "Posting of Macrotransactions").
- "Apply Buffered Balance" changing balances of bank contracts and merchant contracts (for details, see the section "Posting Documents in WAY4" of the document "Documents").

Group running of these procedures is accompanied by a screen with a progress bar for each process (see the section "DB Manager Processes" of the document "DB Manager Manual") and is interrupted by the "Process Message" form with a message about the results of running.



This message contains the following information:

- Quantity of successfully posted documents (Posted)
- Quantity of documents that generated a warning (Posted with Warning)
- Quantity of declined documents (Decline)
- Quantity of documents processed using the dispute account (Decline Service)
- Quantity of processed reversal documents (Closed)
- Quantity of documents waiting the next processing period (Waiting)

To continue executing the procedure, click the [Proceed] button, and to cancel, click the [Cancel] button.



After the document processing operation has been successfully executed, the "Document Processing Complete" message will be displayed.

If an error is generated while executing these procedures and a window with an "Error" header appears, contact your system administrator.



Note that all documents with the "Decline", "Decline Service" or "Posted with Warnings" status require additional analysis, and if necessary, correction.

Additional information on the results of document processing may be received by selecting the user menu item "Full \rightarrow Process Log \rightarrow Process Log".

This command opens the Process Log, containing the system process log.

The user may control how each process is executed through messages generated by the system during execution.

Message text is invoked to the screen after the user selects in the Process Log the line corresponding to the desired process, and clicks the [Message] button.

For more information about document processing, see the section "Posting Documents and Solving Typical Problems" of the document "Documents".

5.1 Document processing step by step

To execute document processing step by step, use the menu "Full \rightarrow Daily Procedures \rightarrow Document Processing Step by Step".

This group contains the following menu items:

- "Accept Documents" document processing step where documents are checked and macrotransactions are created.
- "Posting" processing of macrotransactions, that is, transferring funds between contract accounts (see the section "Posting of Macrotransactions").
- "Apply Buffered Balance" changing balances of bank contracts and merchant contracts (for details, see the section "Posting Documents in WAY4" of the document "Documents").
- "Clear Old Pendings" unblocks funds for authorizations that meet bank criteria set using the AUTH_SAVING_PERIOD, FINAL_AUTH_SAVING_PERIOD, and PREAUTH_SAVING_PERIOD global parameters (see the document "Way4 Global Parameters"). When document processing is run as a group, this process is not automatically executed, and if funds must be unblocked, this menu item must be run daily.
- "Renew WhenAvailable Docs" procedure for unblocking funds that were blocked earlier when
 posting "When Available" and "When Credit" documents, with creation of necessary entries for the
 document (for more information, see the section "Posting "When Available" and "When Credit"
 Documents" of the document "Documents"). Since this process is not automatically executed
 when document processing is run as a group, it is recommended to run this menu item according
 to the frequency set for these documents.



- "Extra Limit Normalization" inter-contract limit normalization between the accounts of different contracts that have a common upper-level Liability contract (for more information, see the document "Repayment of debt from other contracts (Direct Debit)"; the functionality is supplied according to a separate agreement with OpenWay).
- "Apply Additional Balances" procedure for correct display of information about balance type values in the "Additional for <...>" form for bank and acquiring contracts (to open the form, click the [Additional] button in the "Balance for <...>" window of the corresponding contract). Data in the "Additional for <...>" form might be displayed incorrectly, since operations with these contract are processed in parallel mode. Execution of the procedure only affects display of balance information and does not affect processing of operations; the frequency for running the procedure is determined by the financial institution.



6 Loading RBS files

Group execution of this procedure is not provided for in the standard configuration of Way4.

6.1 RBS inward processing step by step

For step by step processing of RBS incoming documents, use the user menu item "Full \rightarrow Daily Procedures \rightarrow RBS Inward Processing Step by Step".

This menu item group is configured according to bank regulations, accordingly, Way4 contains a standard set of menu items for the basic configuration, including the following menu items:

- "OLD RBS Transaction Slips Import" import for issuing contracts' payments documents (slips) generated for card transactions; for details on slip format, see the document "Import of Transaction Information".
- "OLD RBS Payments Import" import data on card account replenishment; for information about the format of imported files, see the document "CBS Payments Import".
- "OLD RBS Response Import" import response files created by the import target after processing files sent from the system (see "Exporting RBS Files"); formats of response files are described in the corresponding documents about file export.
- "OLD RBS Documents Import" import authorization and financial documents; for information about formats for imported files, see the document "CBS Document Interchange".
- "OLD RBS Balance Import" import balances; for details on imported files, see the document "Exporting and Importing Balances".
- "OLD RBS Batch File Response" generate an outgoing response file for a successfully imported file when the payment import pipe is started in deferred response generation mode; for details on file format, see the document "CBS Payments Import".
- "OLD RBS Documents Import Response" generate an outgoing response file for a successfully imported document file when the document import pipe is started in deferred response generation mode; for details on file format, see the document "CBS Document Interchange".
- "Payments Import Report" report about payments that were imported to the system from the banking system for a specified period of time.



Instead of obsolete menu items with the "OLD" prefix, to import documents it is recommended to use the following menu items from the menu group "Full \rightarrow Core Banking Interface \rightarrow CBS. Daily Procedures \rightarrow CBS. Inward Processing":

- "CBS Documents Import With Postload Processing" import files with subsequent post-load processing of documents. All unprocessed files imported earlier by the user will be processed.
- "CBS Documents Import With Postload Processing One File" from this file import one file with subsequent post-load processing of documents.

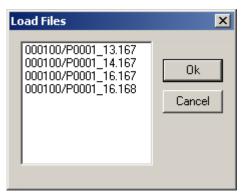


For information about imported file formats, see the document "UFX Interchange. Operation Manual".

The payment import procedure can be an example of an RBS file import procedure.

To run the RBS payments import procedure, select the user menu item "Full \rightarrow Daily Procedures \rightarrow RBS Inward Processing Step by Step \rightarrow OLD RBS Payments Import".

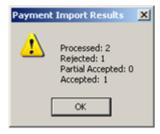
As a result, the "Load Files" screen with a list of files prepared for loading will be displayed.



Files may be selected for import from this list by holding the <Ctrl> key and clicking on the desired files.

After the required files have been selected, click the [OK] button.

When the payment load procedure has been completed, the "Payments Import Results" screen with a message on load results will be displayed:



This window contains the following information:

- "Processed" number of files processed during the load procedure.
- "Rejected" number of files rejected during the load procedure.
- "Partial Accepted" number of partially accepted files.
- "Accepted" number of successfully loaded files.

Additional information on results of payment import can be viewed in the user menu item "Full \rightarrow Process Log \rightarrow Process Log".

This command opens the Process Log, containing the system process log.

The user is able to control how each process is executed using messages generated by the program during execution.

Message text is invoked to the screen after the user selects in the Process Log the line corresponding to the desired process, and clicks the [Message] button.

For details on RBS import procedures, see the documents "CBS Interface" and "CBS Interface (UFX Format)".



7 Exporting RBS Files

To run the group of procedures for exporting files to the RBS, select the user menu item "Full → Daily Procedures → Default RBS Outward Processing" (see the section "Executing daily procedures"). In the Way4 standard configuration, this menu item contains a standard set of activities for exporting outgoing files. This menu item can be modified as needed by editing the user menu.



It is recommended that users run these procedures as a group:

- If setting the banking date in the morning after the start of day procedure
- If setting the banking date in the evening before the close of day procedure, excepting the RBS entries export procedure, which in this case should be executed after the close of day procedure

After this menu item has been run, the "Date From" form will be displayed to enter the banking date on which the procedure should be executed.



To continue executing the procedure, click the [Proceed] button, and to cancel, click the [Cancel] button.

Executing the group of procedures for exporting RBS documents will display a window showing a progress bar (see the section "DB Manager processes" of the document "DB Manager Manual").

If an error is generated while executing these procedures and a window with an "Error" header appears, contact your system administrator.

7.1 RBS outward processing step by step

For step by step execution of the RBS export procedure, use the menu item group "Full \rightarrow Daily Procedures \rightarrow RBS Outward Processing Step by Step".

In the Way4 standard configuration, this menu item group contains the following:

- "RBS Adv Balances Export" balance export; for details on the exported file format, see the document "Exporting and Importing Balances".
- "OLD RBS Finance Documents Export" export of financial documents; for details on the exported file format, see the document "CBS Document Interchange".



- "OLD RBS Authorizations Export" export of authorization documents; for information about the format for exported files, see the document "CBS Document Interchange".
- "OLD RBS Online Payments Export" export of documents for successful online payments to billing systems of third-party service providers; for details on the exported file format, see the document "Unloading Online Payments".
- "Online Payments Outgoing Files" display a form with a list of files containing information about successful online payments.
- "OLD RBS Card Transactions Export" export of card contract transaction information; for information about the format of exported files, see the document "CBS Transactions Export".
- "OLD RBS Merchant Transactions Export" export of transaction information for merchant client contracts; for details on exported file format, see the document "CBS Transactions Export".
- "RBS Merchant Transactions Export (Batching)" batched export of merchant contract transactions; for details on exported file format, see the document "Merchant Transactions Export (Batched)".
- "OLD RBS Transfers Export" export of subsidiary GL entries and GL entries; for details on exported file format see the documents "Analytic Transfers Export" and "Synthetic Transfers Export".
- "OLD RBS Outward Documents" export of documents from standing payment orders; for details on exported file format, see the document "CBS Merchant Payment Orders".
- "RBS Card Stop List Export" export of stop lists with card numbers and BIN ranges.
- (1)

Instead of obsolete menu items with the "OLD" prefix, to export documents it is recommended to use the following menu items from the menu group "Full \rightarrow Core Banking Interface \rightarrow CBS. Daily Procedures \rightarrow CBS. Outward Processing":

- "CBS Authorizations Export" export of authorization documents in UFX format.
- "CBS Finance Documents Export" export of financial documents in the UFX format.
- "CBS Documents Response Export" generate a UFX deferred response file as a result of document import.
- "CBS Card Transactions Export" export of transaction data for card contracts in the UFX format.
- "CBS Merchant Transactions Export" export of transaction data for merchant contracts in the UFX format.
- "CBS Orders Export" export of documents in the UFX format as a result of standing payment order processing.
- "CBS Online Payments Export" export of documents in the UFX format for successful online payments to billing systems of third-party service providers.
- "CBS Subsidiary GL Entries Export" export of subsidiary GL entries in the UFX format. For more information, see the section "Closing and exporting GL entries".
- "CBS Consolidated GL Entries Export" export of subsidiary GL entries in the UFX format. For more information, see the section "Closing and exporting GL entries".



For a description of formats of files exported using the menu items "CBS Subsidiary GL Entries Export" and "CBS Consolidated GL Entries Export", see the document "Export of Subsidiary GL Entries and GL Entries in UFX Format" (before version 03.35.30, "Export of GL Traces and GL Transfers in UFX Format"). For a description of file formats for other menu items starting with the "CBS" prefix, see the document "UFX Interchange. Operation Manual".

For details on the RBS export procedure, see the documents "CBS Interface" and "CBS Interface (UFX Format)".



8 Closing and exporting GL entries

For operations to be recorded correctly in Way4, it is necessary to close entries for GL accounts and/or entries for subsidiary accounts at least once a day. GL entries are closed automatically when exporting entries using the "GL Transfers Export" pipe. For more information, see the section "Entry Export Pipes" of the document "Way4 Accounting".

If entries are not exported in the standard RBS export procedure in Way4 (for example, when Way4 data is reconciled separately for each transaction), GL entries must be closed using the menu item "Full \rightarrow Daily Procedures \rightarrow General Ledger \rightarrow Close GL Entries". To optimise the document posting process, the procedure must be run at least once a day.



9 Reserves accrual

This procedure is used for regular reserves accrual in the bank's loan reserve account according to its reserve scheme.

To run this procedure, use the menu item group "Full → Daily Procedures → Reserves Accrual".

This group contains the following menu items:

- "Reserves Accrual for Bank" reserves accrual for all reserve schemes (for more information about reserve schemes, see the section "Reserve Schemes" of the document "Loan Loss Reserves").
- "Reserves Accrual for Bank in Prev Day" reserves accrual for all reserve schemes with the entries generation date preceding the current banking date.
- "Reserves Accrual for Contracts" reserves accrual for all contracts.
- "Reserves Accrual for Contracts in Prev Day" reserves accrual for all contracts with the entries generation date preceding the current banking date.
- "Reserves Accrual by Portfolio" reserves accrual for contracts included in a portfolio of homogeneous loans.
- "Reserves Accrual by Portfolio in Prev Day" reserves accrual for contracts included in a portfolio of homogeneous loans with the entries generation date preceding the current banking date.
- "Reserves Event Types uploading" synchronisation of Event types for reserve schemes. The
 "Reserves Event Types uploading" procedure works according to the same principle as the
 "Requested Events Uploading" procedure (see the section "Events Log" of the document
 "Events").



These procedures are executed according to the RESERVE_IN_LOCAL_CURR global parameter's value (see the document "Way4 Global Parameters").



10 Loading information into BIN table

The procedure of loading information into the BIN table is not a daily procedure and is executed regularly when the corresponding data is received from the payment system. For details about loading information into BIN table, see the section "Loading information into BIN table" of the document "Interchange Routing".



11 Loading stop lists

The Load Stop Lists procedure is not a daily procedures and is executed regularly when the corresponding data is received from the payment system.

For rules for loading Visa and Mastercard stop list information, see the section "Stop List" of the document "Way4 Stop Lists".



12 Parallel run

To improve performance when running many operations of the same type, the system provides a special parallel run option in Daily Procedures that may be run instead of standard procedures.



Note that standard procedures started from the "Full \rightarrow Daily Procedures" menu folder are parallel run procedures.

These special procedures may be run through the user menu "Full \rightarrow DB Administrator Utilities \rightarrow Special OpenWay Utilities \rightarrow Parallel Run".

This group contains menu items with the daily procedures that require the greatest number of sametype operations:

- "Contracts Daily Update" morning contracts daily update.
- "Accept Documents" process documents.
- "Posting" processing of macrotransactions.
- "Renew WhenAvailable" procedure processes "When Available" documents.
- "Contracts Daily Update Evening" evening contracts daily update.
- "Posting Events" process Events (see the section "Processing Events" of the document "Events").
- "Collect Doc Statistics" gather information about financial institutions' transaction activity (see the section "Preparing Data for Gathering Statistics" of the document "Way4 Statistical Report Data Preparation").
- "Apply Account Schemes Changes" apply changes in contracts' Account Schemes.
- "Apply Service Packs Changes" apply changes in contracts' Service Packages
- "Apply Products Changes" apply changes in all contracts' Products.
- "Contracts Daily Check" daily morning contract check (for more information, see the document "Distributed Processing. Operation Manual" provided according to a separate agreement with OpenWay).
- "Contracts Daily Check Evening" daily evening contract check (for more information, see the document "Distributed Processing. Operation Manual" provided according to a separate agreement with OpenWay).
- "Daily Standing Payment Orders By Top Contract" process standing payment orders with the "Downgrade To"/"Upgrade To"/"Downgrade To (Single)"/"Upgrade To (Single)" order type for contracts in a "Liability" hierarchy.
- "Daily Standing Payment Orders By Main Contract" process standing payment orders with the "Downgrade To"/"Upgrade To"/"Downgrade To (Single)"/"Upgrade To (Single)" order type for contracts in a "Main/Sub" hierarchy.





If payment orders are generated for contracts with two hierarchy types (Liability and Main/Sub), it is recommended to use the "Daily Standing Payment Orders By Top Contract" menu item. For more information about contract hierarchies, see the section "Contract hierarchy" of the document "Issuing Module".

- "Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Top Contract" process standing payment orders with the "Downgrade To"/"Upgrade To"/"Downgrade To (Single)"/"Upgrade To (Single)"/"Debit Amount"/"Credit Amount" order type for contracts in a "Liability" hierarchy.
- "Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Main Contract" –
 process standing payment orders with the "Downgrade To"/"Upgrade To"/"Downgrade To
 (Single)"/"Upgrade To (Single)"/"Debit Amount"/"Credit Amount" order type for contracts in a
 "Main/Sub" hierarchy.



The "Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Top Contract" and "Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Main Contract" procedures can be used, in particular, to transfer payment amounts to merchant accounts according to standing payment orders with the BY_BATCH tag (for more information, see "Setup Tags").

If payment orders are generated for contracts with two hierarchy types (Liability and Main/Sub), it is recommended to use the "Daily Standing Payment Orders (UpgradeTo/DowngradeTo and Debit/Credit) By Top Contract" menu item. For more information about contract hierarchies, see the section "Contract hierarchy" of the document "Issuing Module".

Parallel run procedures include several steps:

- Run the set number of parallel processes
- Wait for the last process to be executed
- Receive overall data on results of all processes
- Change contract balances according to results of parallel run (for the Contracts Daily Update procedure).

In this way, each mentioned menu item includes several subitems that correspond to a specific step in the procedure. In turn, these subitems are separate menu items in the group "Full \rightarrow DB Administrator Utilities \rightarrow Special OpenWay Utilities \rightarrow Parallel Run \rightarrow Step by Step".

This group contains the following menu items:

- "Start Contracts Daily Update" run a daily morning contracts update in parallel mode.
- "Start Contracts Daily Check" run a daily morning contract check in parallel mode (for more information, see the section "Distributed Processing of BackOffice Operations" of the document "Distributed Processing. Operation Manual").





The "Distributed Processing" product is not included in the basic configuration of Way4 and is provided according to a separate agreement with OpenWay.

- "Start Accept Documents Filtered" run document posting in parallel mode; users can also specify additional posting conditions.
- "Start Accept Documents" run accepting documents in parallel mode.
- "Start Posting" run macrotransaction posting in parallel mode.
- "Start UpGrade, DownGrade Standing Payment Orders By Top Contract" start processing standing payment orders with the "Downgrade To"/"Upgrade To"/"Downgrade To (Single)"/"Upgrade To (Single)" order type (see the section "Daily standing payment orders").
- "Start Renewing WhenAvailable" run posting of "When Available" documents in parallel mode.
- "Event Posting Prediction" process Events in parallel mode (for more information, see the section "Distributed Processing of BackOffice Operations" of the document "Distributed Processing. Operation Manual").
- "Start Contracts Daily Update Evening" run the evening contracts daily update in parallel mode.
- "Start Contracts Daily Check Evening" run a daily evening contract check in parallel mode (for more information, see the section "Distributed Processing of BackOffice Operations" of the document "Distributed Processing. Operation Manual").
- "Start Posting Events" run Event processing in parallel mode.
- "Wait for the Last Process" wait for the last process to be completed.
- "Apply Buffered Balance" change balances of bank contracts and merchant contracts according to the results of parallel run.
- "Start Correcting Service Approved" activate Service parameters in parallel run mode
- "Last Process Errors" receive overall data on results of all executed processes.

The number of parallel processes can be set in the parameters of the corresponding menu item starting a procedure; however, to do so, it is strongly recommended to use the "PARALLEL" process parameter specified in the "Process Parameters" form (Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Process Parameters). It is recommended to use a prime number as the value of the "PARALLEL" parameter (*Parallel Value* field of the "Process Parameters" form). This can help to avoid uneven distribution of data being processed into parallel threads in a process.

Moreover, for each process, other parameter can be specified that are related to the parallel mode. For example, debugging is enabled, the exception handler is called when "No Data Found" errors occur, etc.

For more information about setup and process parameters used, see the document "Running Processes in Parallel".



13 Set FX rates

Way4 provides several options for setting FX rates.

To select the desired option for FX rates, use the menu item group at "Full \rightarrow DB Administrator Utilities \rightarrow Special OpenWay Utilities \rightarrow Set FX".

This group contains the following menu items:

- "Set FX Rates (Full)" sets the buy, sell, and middle rates for all financial institutions (see the subsection "Combined banking date mode" of the section "Setting banking date").
- "Set FX Rates (Middle Rates)" sets middle rates for all financial institutions, the entered rate will be automatically copied to the buy and sell rate fields
- "Set FX Rates (Head Office)" sets all currency rates for the head office; the value entered here will be automatically copied to the FX rate fields of all financial institutions
- "Set FX Rates (Head Office, Middle Rates)" sets the middle rate for the head office; the entered rate will be automatically to the buy and sell rate fields of the head office, also to the FX rate fields of all other financial institutions

Depending on the bank or processing center's regulations, a menu item for setting FX rates may be included in the start of day batch procedure.



Note that when menu items specified below are selected, the following warning message will be shown in a dialog box: "Important! If you click "Yes", currency rates for all financial institutions will be changed and it will be impossible to roll back the changes", which should be confirmed to make it possible to set FX rates:

- Set FX Rates (Middle Rates)
- Set FX Rates (HeadOffice)
- Set FX Rates (HeadOffice, Middle Rates).

To cancel the activity, click [No] in the dialog box, since cancelling the activity for setting FX rates by clicking the [Cancel] button in the "Set FX Rates (Middle Rates)", "Set FX Rates (Head Office)", and "Set FX Rates (Head Office, Middle Rates)" forms does not restore previous values of FX rates (that were effective before running the menu item) and can lead to the use of incorrect values when processing online and back-office operations in Way4.

Messages about running these menu items are available in the Process Log.

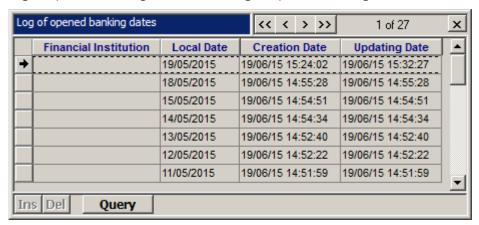
For additional information, see the section "Entering currency rate values during the start of day procedure" of the document "Currency Conversion".



14 History of changes to the banking date

Sometimes it's necessary to view the history of changes to the banking date. For example when troubleshooting or if the opening of a business day did not take place according to the business calendar (for more information about business calendar setup, see the section "Business Calendar" of the document "Way4 Dictionaries").

To view the history of changes to a banking date, select the user menu item "Full → Daily Procedures → Log of opened banking dates". The "Log of opened banking dates" form will open:



This form contains the following fields:

- Financial Institution name of the financial institution for which the business day was opened. If the field is not filled in, the banking day was opened for all financial institutions. This field will be filled in if Time Zone mode, to support different business calendars, is used for a financial institution. For more information, see the document "Time Zones".
- Local Date banking date being opened.
- Creation Date date and time of opening the banking date.
- *Updating Date* date and time the record was last updated. The value in this field may differ from the value in the *Creation Date* field, for example, if during one day the same banking day was reopened.



It is permitted to enter a value equal to the current banking date, for example, if it is necessary to change the currency rate several times a day.