

## **System Administrator Manual**

# **Financial Institutions**

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This document is intended for bank or processing center employees responsible for Way4 setup and contains information on registering and configuring new financial institutions in the system, setting up interbranch routing rules, and using time zone mode.

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

- "Way4 Account Schemes"
- "Products and Contract Subtypes"
- "Standing Payment Orders"
- "Interest Accrual"
- "Way4 Global Parameters"
- "Issuing Module"
- "Documents"
- "Daily Procedures"
- "Cardholder Statements"
- "Configuring WAY4 for Magnetic Stripe Card Issuing"
- "Way4 Accounting".

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 Basic concepts

A financial institution in Way4 is a credit institution, its branch or affiliated bank registered in a special dictionary. This object is used in the system to reflect financial activities of a credit institution.

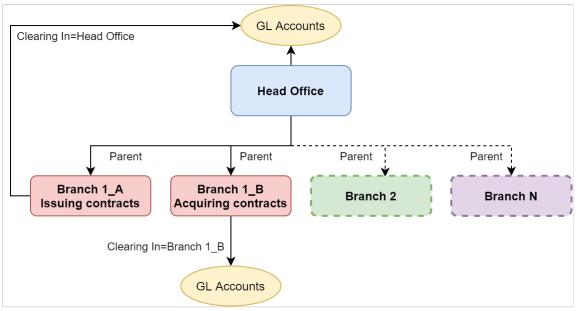
Such basic system objects as clients, contracts, Products, contract subtypes, Service Packages, Account Schemes, Events, macrotransactions, FX rates, etc. all belong to a specific financial institution.

Many procedures (document processing, daily closing, data exchange with the bank system and with the issuing module) can be executed both for a particular financial institution as well as for a group of financial institutions.

A financial institution may be subordinate to another financial institution. This allows for the creation of a hierarchical structure of financial institutions in the system. The system supports the creation of several independent hierarchical structures of financial institutions.

Hierarchical structures of financial institutions can be used to configure various types of interaction between financial institutions (various types of subordination).

- 1. The hierarchy "head office bank branch" can have various options for use:
  - The branch is a financial institution in its own right with its own clients, contracts and General Ledger; however, Products, tariffs and a number of other objects, such as FX rates, etc. are exact copies of the head office's set of configurations. This is the most widespread type of hierarchy.
  - The branch assumes the creation of a full-fledged financial institution with its own clients, contracts and General Ledger; but the branch is allowed to set its own independent tariffs, and when necessary, to configure Products.
  - The branch is a financial institution containing records on clients, contracts, Products and tariffs, but does not have a General Ledger. The results of processing this financial institution's financial transactions are reflected in the General Ledger of another financial institution (usually in the head office's General Ledger). This type of hierarchy is used when accounting regulations of a multi-branch bank require accounting to be maintained on the balance of the head office.
- 2. The hierarchy "head office group of branch objects". The subordinate financial institution in this hierarchy is used to group objects (clients, Products, etc.). For example, one bank branch (Branch 1) can be represented by two subordinate financial institutions: card Products and contracts are grouped in one (Branch 1\_A), and acquiring Products and contracts in the other (Branch 1\_B). This approach can be used, for example, to separate accounting for branch operations, when accounting for card operations is maintained in the head office, and accounting for acquiring operations in the branch itself (see description of the *Clearing In* field in the section "Basic FI parameters"). The head office can have another branches besides "Branch 1" (Branch 2, ... Branch N):



- 3. The hierarchy "sponsor bank affiliated bank". The sponsor bank interacts with payment systems. Possible options:
  - The affiliated bank has its own processing system. Every day, the affiliated bank exchanges
    transaction information with the sponsor bank on a Host-to-Host channel. In this case, in
    the financial institution hierarchy set up in the bank sponsor's system, the subordinate
    financial institution (affiliated bank) contains only routing bank contracts. Interaction
    between the sponsor bank and the affiliated bank is set up using Interchange routing
    mechanisms.
  - Accounting for the affiliated bank's issuing and/or acquiring is maintained in the sponsor bank's system (in Way4). In this case all data on the affiliated bank's clients, contracts, macrotransactions, etc. are stored in the sponsor bank's system. The financial institution hierarchy for this type of interaction is configured in the same way as the "head office – bank branch hierarchy", second option.

Rules for financial transactions between financial institutions registered in Way4 are regulated by means of Interbranch Routing; for more information, see the section "Interbranch operations".

Configurations in which there are several independent head financial institutions with their own branch structures and different accounting rules for interbranch operations are also supported in Way4 (for more information, see the section "Routing between several head financial institutions").



## 2 Financial institutions in Way4

This section describes work with financial institutions in Way4 when the following actions are performed:

- · Adding financial institutions.
- · Changing basic FI configurations.
- Changing additional FI configurations.
- Deleting financial institutions.
- Moving clients and contracts to another FI.
- · Configuring bank branches and divisions.

## 2.1 Adding financial institutions

Adding a financial institution consists of the following steps:

- · Registering financial institutions.
- Copying FI configurations.
- · Activating basic FI properties.
- · Checking FI parameters.

## 2.1.1 Registering financial institutions

To add a financial institution, select "Full → Configuration Setup → Main Tables → Financial Institutions" from the user menu and click the [Ins] button in the "Financial Institutions" form that opens:



When creating a new financial institution record, configure a minimum set of financial institution parameters – fill in the *Name* field (name of the financial institution) and specify FI identifiers (*Bank Code* and *Branch Code*; for more information, see the section "Basic FI parameters"). It is recommended that the remaining parameters be set up after standard FI parameters are copied since this process copies the values of all fields in forms "Financial Institutions" and "Details..." of the standard financial institution except for the above ones.

For information on how to change financial institution parameters and for a description of fields of the "Financial Institutions" form, see sections "Basic FI parameters" and "Additional FI parameters".



The form contains the following buttons:

- [Check] verify financial institution parameters (see the section "Checking FI parameters").
- [Init Settings] copy basic configurations from another financial institution (see the section "Copying basic FI configurations").
- [Refr Settings] partially copy configurations from another financial institution (see the section "Partial copying of configurations for a specific FI").
- [Children Refr] copy the parameters of the parent financial institution to all subordinate financial institutions (see the section "Selective copying of parent FI settings for all child FIs").
- [Currency] change the local currency (see the section "Changing the local currency").
- [Routing] change routing configurations (see the section "Changing Interchange routing configurations").
- [Interbranch] set up Interbranch routing (see the section "Configuring interbranch routing").
- [Messages] access the form containing system messages generated as a result of executing the previous operation (for example, results of FI check see the section "Checking FI parameters").
- [Details] access the form with additional FI data (see the section "Additional FI parameters").
- [Branches] configure a financial institution's branches (see the section ""Branches" form).
- [Division] access additional information about the financial institution and its denies (see the section ""Bank Divisions" form).
- [Classifiers] access the form for classifiers configured in a financial institution (see the section "Default contract classifiers for financial institutions").

### 2.1.2 Copying FI configurations

This section describes actions in the following processes:

- Copying basic FI configurations.
- Partial copying of configurations for a specific FI.
- Selective copying of parent FI settings for all child FIs.

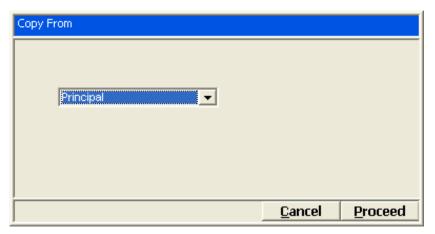
#### 2.1.2.1 Copying basic FI configurations

After registering a new financial institution, it is necessary to copy basic configurations from another financial institution that has already been set up (standard FI).

To copy configurations, select a new financial institution in the "Financial Institutions" form (see the section "Registering financial institutions") and click the [Init Settings] button. In the "Init Settings for <name of new FI>" dialogue box that opens, make sure that copying will take place for the new FI and click the [Setup] button:



In the "Copy From" form that opens, select the FI from which configurations must be copied and click the [Proceed] button:



During this procedure, the following objects are copied to the new FI:

- · Client types
- · Service groups
- · Contract subtypes
- · Event types
- Behavior groups and behavior types
- · Account Schemes
- · Service Packages
- Products
- Bank divisions
- · Bank accounting contracts
- Stat diagrams
- FX Schemes



When configurations are copied, values of fields of the "Financial Institutions" form are copied. If necessary, change the copied configurations in the new FI after copying. For information on how to change parameter values, see the section "Changing FI parameters". Local currency values are changed in special mode – see the section "Changing the local currency".



After copying, Service Packages and Account Schemes of the new financial institution contain a link to the standard setup (fields *Parent Pack*, *Parent Scheme*, respectively). A link to the standard setup in other (child) objects copied from the standard configurations is a record code, which is the same as the record code of the corresponding standard object. All child objects inherit changes in the parameters of standard objects:

- When configurations of a standard Account Scheme or Service Package change, the parameters are synchronized when the standard object is approved. When users attempt to change child object parameters without changing the standard object, the modified parameters are automatically rolled back and synchronised with the standard parameters when the changes in the child object are approved.
- When other standard objects (Products, contact subtypes, Events, etc.) change,
  parameters are synchronised during the partial copying procedure (see the section
  "Partial copying of configurations for a specific FI"). If child object parameters are
  changed without changing the standard object, the modified parameters are rolled
  back and synchronised with the standard parameters during the partial copying
  procedure.

To switch off inheritance of changes, proceed as follows:

- For Account Schemes and Service Packages: clear the *Parent Scheme* field of a child Account Scheme or *Parent Pack* field of a child Service Package.
- For Products, inheritance of their components can be switched off; to do so, specify the "NO\_COPY;" tag in the *Custom Data* field of a child Product. When copying selected parameters of a template financial institution, the tag makes it possible for the Product of a child financial institution to not copy the Account Scheme, Service Package, Report Type, etc.
- All copied objects can be unlinked from their standard object by changing the record code. However, when copying is partial, new copies of standard objects will be created.

The way partial FI update is performed depends on how inheritance of changes is switched off (see the section "Partial copying of configurations for a specific FI").

When copying a financial institution's settings, consider the *Branch Code* parameter of the original institution. This code is used when generating a prefix in the names of the institution's bank contracts, Account Schemes and Service Packages (with consideration of the rules set using the *Numeration Scheme* parameter – for more information, see the section "Basic FI parameters"). If a name does not contain this prefix (or the prefix was changed manually by a user), duplicate names may be created when copying.



#### For example:

- In the source institution with the code "001", there is a Service Package with a name that does not start with the institution's code. For example "L\_001-Our Priv Visa".
- In the source institution with the code "001", there is a Service Package with the name "001-Our Priv Visa".
- After copying to a new institution (for example, with the code "777"), both Service Packages will be created with the name "777-Our Priv Visa".

This may lead to the user incorrectly choosing a Service Package in a Product, and, consequently, to the use of incorrect tariffs for a contract.

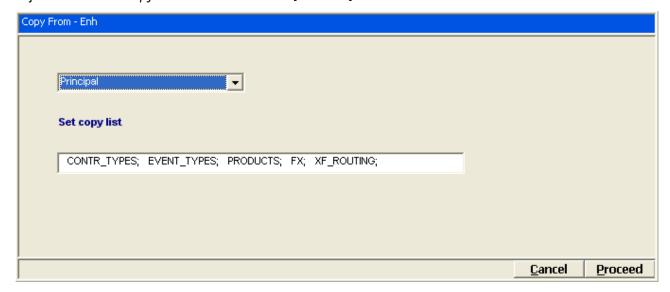
If the *Branch Code* parameter is not set for the target institution, copied objects in the target institution will be created with the same names as in the original institution. Without filtering by institution, this may be inconvenient, for example, for viewing Service Packages.

#### 2.1.2.2 Partial copying of configurations for a specific FI

In Way4, it is possible to partially copy configurations of a source FI without changing the other configurations of the FI to be updated.

For example, during setup of FI 2, configurations were copied from FI 1. After this, some changes were made to the configurations of FI 2. Then, one of bank contracts changed and a Product was added to FI 1. To copy the changes to FI 2 without changing its own configurations, the partial copying procedure is used.

To do so, select the target institution in the "Financial Institutions" form and click the [Refr Settings] button. In the "Refr Settings for <name of FI>" dialogue box, make sure that additional copying will take place for the necessary FI and click the [Refresh] button. In the "Copy From" form that opens, select the FI from which configurations must be copied, if necessary, delete objects from the list of copied objects in the *Set copy list* field and click the [Proceed] button.



#### After partial copying:

 Copies will be created for all selected objects of the standard FI that have no copies in the updated FI.



 Copies of found objects will be synchronized with the standard objects (except for Account Schemes and Service Packages, which are synchronized when objects are approved) if inheritance of parameters is not switched off. For information on switching off inheritance, see the section "Copying basic FI configurations".



A search for copies is made as follows – copies are searched for by record code (the codes of copied records are the same as the codes of standard records) and parameters of found records are checked:

- For Service Packages and Account Schemes:
  - If the *Parent Pack/Parent Scheme* field is filled in, the copy is recognized, and a new copy of the standard object is not created.
  - If the Parent Pack/Parent Scheme field is left blank, the copy is not linked to the standard object. A new copy of the corresponding Service Package or Account Scheme is created.
- For Products if the "NO\_COPY;" tag is specified in the *Custom Data* field of a child Product, changes in components of the standard (template) Product (Account Scheme, Service Package, report type, etc.) will not be inherited, but the parameters of the Product will be synchronised with the standard one.

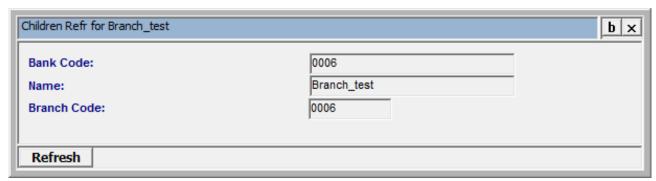
  The "NO\_COPY;" tag can be specified in the properties of a child Product. When copying the main Product's settings, this child Product will not be synchronised with the standard one.

#### 2.1.2.3 Selective copying of parent FI settings for all child FIs

In Way4, it is possible to copy changes in the parameters of a parent FI to all child (subordinate) institutions. A link to the parent institution is specified in the *Parent Institution* field of the child institution (see the section "Basic FI parameters").

To synchronise settings in the "Financial Institutions" form, select the parent institution and click the [Children Refr] button.

Click the [Refresh] button in the confirmation window that opens.

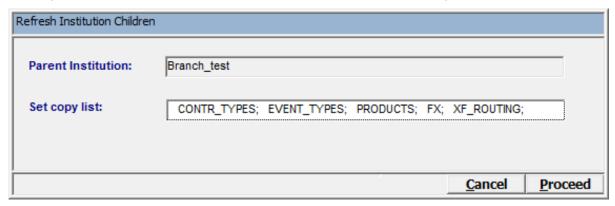






If the institution is not the parent for any financial institution (no financial institution has a link to this institution in the *Parent Institution* field), an error message will be displayed.

Clicking the [Refresh] button opens a form to select objects for copying:



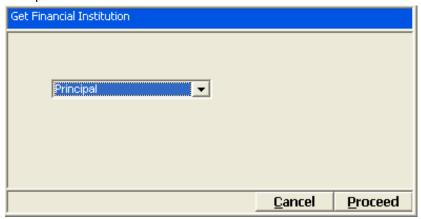
If necessary, in this form delete objects from the list of objects to be copied in the *Set copy list* field and click the [Proceed] button. Parameters of these objects of the parent financial institution are copied to all child financial institutions.

If copying is successful, the "All Branches copied" message will be displayed. If an error occurred while copying data to a child financial institution, the "During copying, some errors occurred. See process log" message will be displayed.

## 2.1.3 Activating basic FI properties

After configurations have been copied, the created objects (Account Schemes, Service Packages, contracts and Products) of the new FI have the "Not Ready" status. To activate the objects created for the new institution, do as follows:

Run the "Renew All For Institution" procedure (Full → Configuration Setup → Main Tables →
Renew All For Institution). When this menu item is selected, the "Get Financial Institution" form
will open:



2. In the "Get Financial Institution" form, select the new FI from the list of registered FIs and click the [Proceed] button.



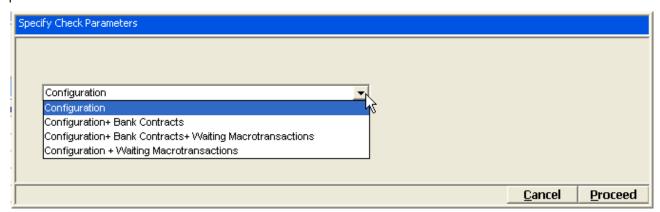
3. In the "Date From" form that opens, specify the date starting with which the configurations of the new FI must be active and click the [Proceed] button:



### 2.1.4 Checking FI parameters

After setup, it is necessary to check the parameters of the new FI. To do so, select the new institution in the "Financial Institutions" form (see the section "Registering financial institutions") and click the [Check] button.

As a result, the "Specify Check Parameters" form will be displayed. It is used to specify check parameters:



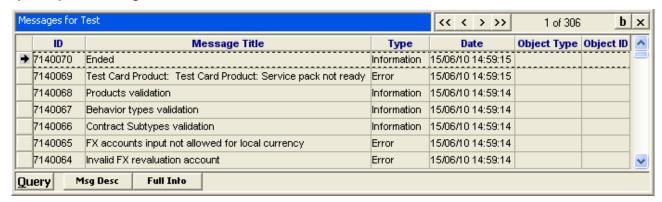
The following options are available:

- Configuration FI parameters are checked (see a list of checked objects in the section "Copying basic FI configurations"); this is the default value.
- Configuration + Bank Contracts FI parameters and bank contract parameters are checked.
- Configuration + Bank Contracts + Waiting Macrotransactions FI parameters, bank contract parameters and waiting macrotransactions are checked.
- Configuration + Waiting Macrotransactions FI parameters and waiting macrotransactions are checked.

Select the necessary type of check and click the [Proceed] button.



To analyse errors that occurred during FI check, click the [Messages] button in the "Financial Institutions" form. This will open the "Messages for <name of FI>" form containing messages generated by the system during FI check:



This form contains all system messages generated during check of the new FI. It is necessary to fix all errors that generated messages of "Fatal Error" and "Error" types and some of the messages of the "Warning" type.

After a new banking day is opened and currency conversion rates are set (see the section "Start of Day procedure" of the document "Daily Procedures"), the new financial institution is ready.



## 2.2 Changing basic FI configurations

After copying of standard FI's settings, the following changes can be made to:

- · Changing FI parameters.
- Calculating the debited amount (USE\_TRANS\_AMOUNT tag).
- Changing the local currency.
- Changing Interchange routing configurations.
- · Default contract classifiers for financial institutions.

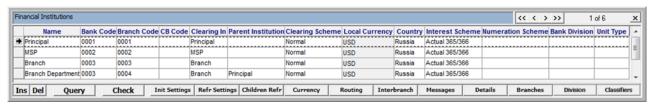
### 2.2.1 Changing FI parameters

This section describes the procedure for changing a financial institution's basic and additional parameters:

- · Basic FI parameters.
- · Additional FI parameters.

#### 2.2.1.1 Basic FI parameters

To modify FI parameters, select the "Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Main Tables  $\rightarrow$  Financial Institutions" user menu item and edit the parameters of the necessary FI in the "Financial Institutions" form that opens.



The form's fields:

- Name FI name.
- Bank Code auxiliary internal FI identifier up to six characters long (does not need to be unique).
   This identifier may be used to name exported files (when cards are produced or to exchange data with the banking system).

This identifier is also used to set up parameters of online operation (see the section "Changing additional FI configurations").

The Bank Code identifier may also be used for procedures or custom packages/pipes.

- Branch Code unique internal FI identifier up to 6 characters long; is used in numbering bank
  contracts, Account Schemes, Service Packages, when creating a prefix for the contract subtype
  RBS Code field (also see the description of the Numeration Scheme field). The identifier may be
  also used to name exported files (for example, when cards are produced) and for specific
  procedures or custom packages/pipes.
- CB Code -code that may be used in a custom procedure that is used to number this FI's accounts.
- The Clearing In field specifies the FI in whose General Ledger accounting is maintained for the operations of this FI. Usually, in this field the same financial institution is selected (generally, the



financial institution has its own accounting and reporting). When configuring bank branch parameters, the head financial institution can be specified in this field. This option is applied when accounting regulations of a multi-branch bank require accounting to be maintained on the balance of the head office.



Note that for a branch that does not have its own General Ledger (branch operations are recorded in the head financial institution), FX schemes should not be configured (see the section "Setting up main FX schemes" of the document "Currency Conversion"). Otherwise, when the financial institution is checked, the error "Entry of FX Schemes is not allowed for this institution" will be generated.

- Parent Institution FI to which the current FI is subordinate. A link to a parent FI affects
  processing of operations between financial institutions (see the section "Rules for creating
  macrotransactions for interbranch operations"). Moreover, a link to the parent FI allows
  synchronisation of changes in parent FI parameters with the parameters of child FIs (see the
  section "Selective copying of parent FI settings for all child FIs").
- Clearing Scheme clearing scheme; this field must contain the "Normal value; values Mirror and Mirror with memory are not used in the current version and are only present for backward compatibility.
- Local Currency local currency of the FI (for information on how to change this parameter, see the section "Changing the local currency").
- Country country of the Fl.
- Interest Scheme this parameter is used to calculate a daily interest rate using an annual interest rate (for more information, see the document "Interest Accrual"). The field can have one of the following values:
  - "Default" this value is specified by default when a financial institution is created. When
    checking institution parameters, this value will be changed to the value of the Days In Year
    parameter in the "Global Constants" form (Full → Configuration Setup → Main Tables →
    Global Constants).
  - "Actual 365/366" to determine the daily interest rate, the length of a year will be equal to the actual number of calendar days in the year (either 365 or 366 days).
  - "360" to calculate the daily interest rate, the length of a year will be affected by the value of the USE\_MONTH\_WEIGHT global parameter (for more information, see the document "Way4 Global Parameters"; for a description of the global parameter, see the sections "Number of Days in a Year" and "Determining a Daily Interest Rate" of the document "Interest Accrual").
  - "-360" to calculate the daily interest rate, the number of calendar days in a month will be considered to be 30, and the number of calendar days in a year will be considered to be 360.
  - "Fixed 365" fixed value for the number of calendar days in the year (365).
  - "Fixed 366" fixed value for the number of calendar days in the year (366).



- "360 with USE\_MONTH\_WEIGHT=Y" to determine the daily interest rate, each month is considered to have the same weight, equal to 1/12 of a year. For example, more interest is accrued for one day of February than is accrued for the same amount on one day in January.
- "360 with USE\_MONTH\_WEIGHT=N" for calculating the daily interest rate it is assumed there are 360 days in a year. Months are considered to have different weights depending on the number of days in the month. For example, the same amount of interest is accrued for one day in February as is accrued for the same amount on one day in January.
- Numeration Scheme determines how a prefix is generated for the names of Service Packages
  and Account Schemes, for the contract subtype RBS Code field, and bank contract numbers
  according to a financial institution's identifier (Branch Code). A prefix is based on the value of the
  Branch Code field. The Numeration Scheme field contains a value in the <N1>:<N2> format; the
  value of the Branch Code field from symbol N1 to symbol N2 will be used to generate the prefix. For
  more information about bank contracts, see the section "Financial institution's bank account
  contracts".

#### Example.

The "1209" value is specified in the *Branch Code* field. The *Numeration Scheme* field contains the value "2:4". The second, the third and the fourth symbols in the *Branch Code* field will be used to generate the prefix, and its value will be "209".

- Division a bank's structural unit corresponding to this institution (for example, department). To
  fill in this field, create a new record in the "Bank Divisions" form (Full → Configuration Setup →
  Accounting Setup → Bank Divisions) and select it in this field. A record in the "Bank Divisions" form
  contains additional information about a branch (see the section "Bank Divisions" form").
- Unit Type type of structural unit specified in the Division field. Selected from the list configured
  in the "Full → Configuration Setup → Main Tables → Unit Types" form (see the section "Unit Types"
  form").

#### 2.2.1.2 Additional FI parameters

To access additional information about a FI, use the "Details for <name of FI>" form. It is opened by clicking the [Details] button in the "Financial Institutions" form (see the section "Basic FI parameters"):



This form contains fields absent from the parent form:



- Parent FI Routing when the "Yes" value is set, Interchange routing settings of the parent FI specified in the Parent Institution field will be used for this FI (see the section "Basic FI parameters"). If "No" is set (the default value), this FI's interchange routing settings are used.
- Calendar Type business calendar type; the specified calendar type will be used to calculate due dates for accounts of contracts created within the FI (see the section "Business Calendar" of the document "Way4 Dictionaries").
- Time Zone time zone shift of the FI (in hours) from the base FI (as a rule, the base FI is the head office). A shift to the west is a positive value, and a shift to the east is a negative value. The value of the field affects closing of a banking day in time zone mode. This functionality is provided according to a separate agreement with OpenWay. For more details on time zone mode, see the document "Time Zones".
- Tariff Domain a tariff domain registered in Way4 can be specified in the Tariff Domain field for each financial institution. A value can be selected in this field if the delivery package includes the tariff management module, which is provided according to a separate agreement with OpenWay.
- The *Dispute Contract*, *Liability Contract*, and *Deposit Contract* fields are used to specify financial institution bank contracts (for more information, see the section "Financial institution's bank account contracts").
- The *Min Deposit* and *Usage* % fields are used to configure recording of certain operations (recording amounts for which there is uncertainty, balances of closed contracts, and other operations) in financial institution bank contract accounts (see the section "Recording operations in bank contract accounts (Institution Specifications)").
- Interest in Cycle determines the billing cycle in which an interest accrual entry is registered and can have the following values:
  - Empty (null) the value of the "Interest in Cycle" parameter specified using the INTEREST\_IN\_CYCLE global parameter is used (see the document "Way4 Global Parameters").
  - "End of cycle" interest is accrued on the last day of a closing billing cycle, that is, the local date (the date when accounting entries are reflected in the General Ledger) is the last day of the closing billing cycle, and the corresponding entry is reflected in the account statement for that cycle.
  - "First End of Day" interest is accrued on the first day of an opening billing cycle, that is, the
    local date (the date when accounting entries are reflected in the General Ledger) is the first
    day of the opening billing cycle, and the corresponding entries is reflected in the account
    statement for that cycle.
  - "Last Working Day" interest is accrued on the last business day of a closing billing cycle, that is, the local date (the date when accounting entries are reflected in the General Ledger) is the last business day of the closing billing cycle, and the corresponding entry is reflected in the account statement for that cycle.
  - "First Working Day" interest is accrued on the first business day of the opening billing cycle, and the corresponding entry is reflected in the account statement for that cycle.



- Post Due Mode determines how waiting due normalisation macrotransactions are posted when a billing cycle is opened (determines the date the macrotransaction is reflected on General Ledger accounts (local date)). This parameter can have the following values:
  - Empty (null) the value specified in the POST\_DUE global parameter is used (see the document "Way4 Global Parameters").
  - "End of Cycle" waiting macrotransactions with due normalisation types "End Cycle Due" or
    "Quarter" (see the section "Ageing" of the document "Way4 Account Schemes") and a posting
    date that is the same as the opening date of a new billing cycle are posted on the closing
    date of the previous billing cycle: the local date (GL Date) of the macrotransactions will
    correspond to the closing date of the previous billing cycle.
  - "First End of Day" waiting macrotransactions with the posting date that is the same as the opening date of a new billing cycle are posted on the first business day of the new billing cycle and will not affect the balance of the closing billing cycle: the local date (GL Date) of the macrotransactions will correspond to the first working day of the new billing cycle.
  - "Last Working Day" waiting macrotransactions with the posting date that is the same as the opening date of a new billing cycle are posted on the last business day of the previous billing cycle: the local date (Gl Date) of the macrotransactions will correspond to the last business day of the previous billing cycle.
  - "Start of Cycle" waiting macrotransactions with the posting date that is the same as the opening date of a new billing cycle will be posted on the first day of the new billing cycle, even if this is not a business day: the local date (GL Date) of the macrotransactions will correspond to the first day of the new billing cycle.
- Cr Lim Posting determines whether credit limits are reflected in issuing contract accounts. When a credit limit is set, an authorization document is generated in the system. Credit limits are reflected in contract accounts by generating for this authorization document a macrotransaction transferring funds from a bank contract to the corresponding account of the issuing contract. The field is filled in by selecting possible values from a list and depends on the CREDIT\_LIMIT\_POSTING global parameter (see the document "Way4 Global Parameters"):
  - If the global parameter CREDIT\_LIMIT\_POSTING is set (the parameter's value is "Y" or "N"), the financial institution's *Cr Lim Posting* field is not analysed.
  - If the CREDIT\_LIMIT\_POSTING global parameter is disabled (if the parameter is not set or the value is empty (NULL)), the mode for showing credit limits in accounts can be enabled in the financial institution's *Cr Lim Posting* field:
    - "No" or empty credit limits are not shown in contract accounts.
    - "Yes" credit limits are shown in contract accounts.
  - A financial institution's *Cr Lim Posting* field can be redefined in an Account Scheme's *Cr Lim Posting* field.
  - If the CREDIT\_LIMIT\_POSTING global parameter is not set and the *CR Lim Posting* field is not filled in for either a Scheme or financial institution, credit limits are not shown in contract accounts.



• FX in HO – determines whether settlement between the head office and other financial institutions is possible in a financial institution's contract currency that is different from the settlement currency of the financial document. Currency exchange is in this case performed in the head office, not in the branch (affiliated bank).

Values of the FX in HO parameter:

- "No" or empty settlement in the currency of a financial document; this is the default value.
- "Yes" settlement in the currency of a financial institution's contract.

For example, if a transaction was made on a device of the head financial institution to withdraw cash in a foreign currency with a branch card using accounts in a local currency (the card account currency differs from the settlement currency), entries in the branch will be made in the local currency using a correspondent account in the local currency. FX for the branch will take place in the head financial institution.

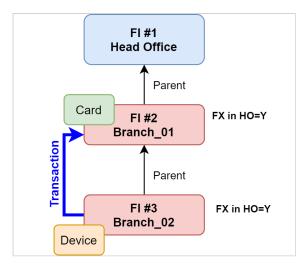
When this operation is processed, two macrotransactions are generated:

- A source macrotransaction between the device contract account and the routing contract
  correspondent account. The transaction amount will be converted into an amount in the target
  contract currency in the branch; this is done using standard FX accounts of the head financial
  institution's bank contract.
- The target contract's currency (card account currency) is used as the target macrotransaction currency. The amount of the target macrotransaction is the amount in the currency of the target contract account at the head financial institution's FX rate. The target macrotransaction correspondent account is the routing contract's standard account (in the currency of the target account).

The procedure for calculating (and recording) the debited amount and the procedure for generating macrotransactions is affected by the following parameters: the global parameter CHANGE\_CURRENCY (see the section CHANGE\_CURRENCY of the document "Way4 Global Parameters") and the "USE\_TRANS\_AMOUNT" tag (see the section "Tags used when working with financial institutions" of the document "Setup Tags").

An exception is the situation when a transaction takes place between two subordinate bank branches in one branch of the hierarchy, and the source financial institution is subordinate to the card's financial institution.

For example, a transaction with a card registered in FI 2 is made on the device of FI 3; for FI 2 and FI 3 the value of the FX in HO parameter is "Yes". In this case, the FX in HO parameter does not work, conversion is made in standard mode (in the example, conversion is made in FI 3).



Configuration disabling the parameter FX in HO

• Special Parms – this field is used for additional configuration of the financial institution using tags. For more information see the section "Tags used when working with financial institutions" of the document "Setup Tags".

## 2.2.2 Calculating the debited amount (USE\_TRANS\_AMOUNT tag)

The USE\_TRANS\_AMOUNT=<value>; tag set in the *Special Parms* field of the financial institution is used to specify the method for calculating the amount debited from "on-us" card accounts when processing a financial document imported from a payment system, as well as the amount of funds blocked when processing an authorization request.



These settings do not work for secondary transactions, that is they do not affect, for example, calculation of the amounts of secondary financial documents in a dispute cycle (Chargeback, Representment).

#### To enable the mode:

1. Register the CHANGE\_CURRENCY global parameter. In the global parameter's value, specify the code of an account type that will be used to record the difference between the Transaction Amount and Settlement Amount when these amounts are in the same currency; for more information, see the document "Way4 Global Parameters".



The code of the account set as the CHANGE\_CURRENCY parameter's value is used to search for the account only when Transaction Amount and Settlement Amount in the same currency are different. When determining the debited/blocked amount in other situations, the value of the CHANGE\_CURRENCY global parameter will be considered exclusively as enabling the mode for checking the USE\_TRANS\_AMOUNT tag.

For more information, see the section "Generating macrotransactions".



- 2. Register the USE\_TRANS\_AMOUNT=<value>; tag and set one of the values:
  - If the value is "F" the transaction amount is blocked and debited from the contract if the card has an account in the transaction currency.
  - If the value is "Y", the transaction amount is always blocked and debited from the contract.
  - If the tag is **not set** or **set to "N"**, the settlement amount will be debited from the contract.

For a source contract (device contract), the transaction is made in the settlement currency regardless of the USE\_TRANS\_AMOUNT parameter's value. If the source contract (device contract) does not have an account in the settlement currency, the source contract will be debited for the settlement amount converted to the contract currency at the rate specified in the FX Rate Type field of the device contract's Service (if there is no Service, the "Middle" rate is used).

3. Configure special account in a bank FX contract to use the USE\_TRANS\_AMOUNT=<value>; tag; for more information, see the section "Configuring accounts".

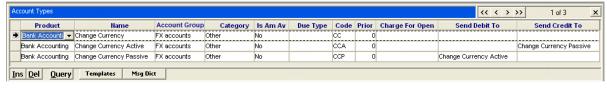
The USE\_TRANS\_AMOUNT=<value>; tag cane be redefined in a Product or Service Package. A tag in a Product has a higher priority than a tag in a Service Package.

Examples of macrotransactions for different values of the USE\_TRANS\_AMOUNT=<value>; tag are given in the section "Generating macrotransactions".

#### 2.2.2.1 Configuring accounts

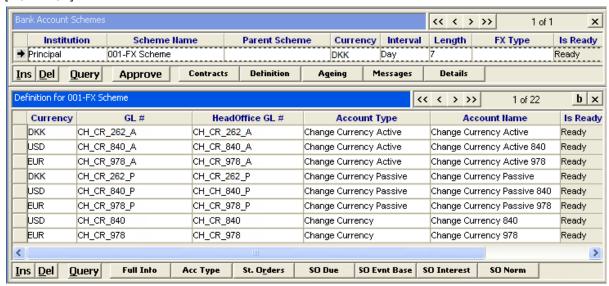
When the USE\_TRANS\_AMOUNT=<value>; tag is activated, do as follows:

 In the "Account Types" form, register three account types, two of which are an asset-liability pair (Full → Configuration Setup → Accounting Setup → Account Types):

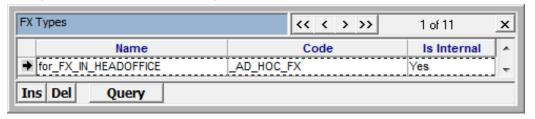


2. Add account templates to an Account Scheme of a bank FX contract for all financial institution currencies (Full → Configuration Setup → Accounting Setup → Bank Account Schemes →

#### [Definition]:



- 3. Configure an FX type:
  - Register the FX type with the predefined code \_AD\_HOC\_FX with "Is Internal="Yes" (Full → Configuration Setup → Accounting Setup → FX Types):



Configure an FX type for an FX scheme and specify accounts that were configured earlier
 (fields Trade Account and Reval Account) and the FX type with the predefined code
 \_AD\_HOC\_FX (Full → Configuration Setup → Accounting Setup → FX Scheme):







In an FX type for an FX scheme, accounts must be specified as follows: in the *Trade Account* field – the account from the asset/liability pair, in the *Reval Account* field – the account not from the asset/liability pair (for details, see item 1).

When adding an FX type, the [Do]  $\rightarrow$  [Check] command should be used to check the changes. If the check is successful, the "Foreign" value will automatically be set in the *Is Local* field, indicating that the scheme is ready for use. See the section "Dependent FX Types" of the document "Currency Conversion".

In addition, currency rates (Full  $\rightarrow$  Daily Procedures  $\rightarrow$  Start of Day Step By Step  $\rightarrow$  Reset FX Rates) should be loaded for the main FX scheme for which the FX type was set up (for more information, see the section "Entering local to foreign currency rates" of the document "Currency Conversion").

#### 2.2.2.2 Generating macrotransactions



The following notation is used in the figures of this section; for more information, see the section "Configuring accounts":

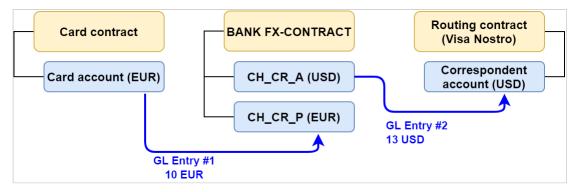
- "CH\_CR\_A", "CH\_CR\_P" additional asset/liability account pair.
- "Reval Active", Reval Passive", "Trade Passive" "Trade Active" standard bank contract FX accounts.
- "CH\_CR" additional account that is not from the asset/liability pair.

Generating macrotransactions for different values of the USE\_TRANS\_AMOUNT=<value>; tag (for more information, see the section "Calculating the debited amount (USE\_TRANS\_AMOUNT tag)):

- If the tag is not set or set to "N", the settlement amount will be debited from the contract. If the settlement currency differs from the contract currency, the transaction amount in the settlement currency will be converted to the contract currency considering the FX Type and FX Rate Type configured in the corresponding Service. When generating entries, standard FX accounts are used.
- If the value is "Y", the transaction amount is always blocked and debited from the contract.
  - Example 1. A transaction with a card on a "foreign" device was made with the following parameters:

Trans. Curr./Amount	Settl. Curr./Amount	Contract Curr.	FI Curr.
10 EUR	13 USD	EUR	DKK

One macrotransaction is created, a macrotransaction for the direct transfer of funds from the card account to the payment system's NOSTRO contract account. Two entries are generated in the macrotransaction:

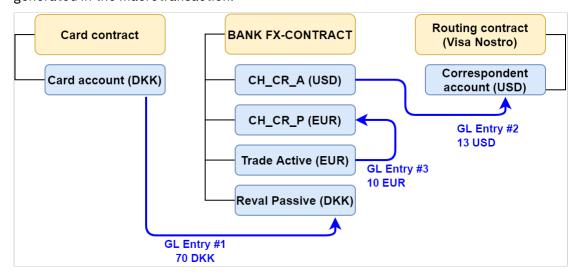


- For the transaction amount from the document received from the payment system.
- For the settlement amount from the document received from the payment system.
- When this macrotransaction is posted, FX conversion using the rates defined in the system is not performed.
- Example 2. A transaction with a card on a "foreign" device was made with the following parameters:

Trans. Curr./Amount	Settl. Curr./Amount	Contract Curr.	FI Curr.
10 EUR	13 USD	DKK	DKK

The card does not have an account in the transaction currency with the type specified in the Service describing this transaction, therefore the card will be debited for the transaction amount converted into the contract currency considering FX Type and FX Rate Type.

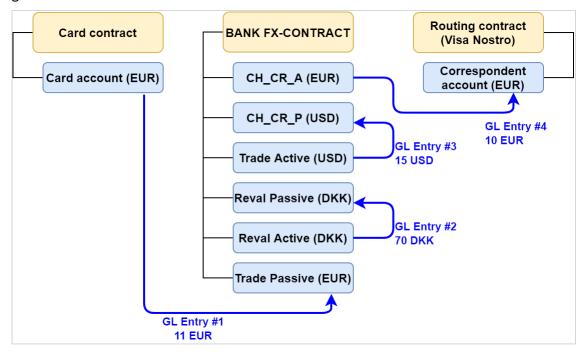
One macrotransaction is created, a macrotransaction for the direct transfer of funds from the card account to the payment system's NOSTRO contract account. Three entries are generated in the macrotransaction:



• Example 3. A transaction with a card on a "foreign" device was made with the following parameters:

Trans. Curr./Amount	Settl. Curr./Amount	Contract Curr.	FI Curr.
15 USD	10 EUR	EUR	DKK

One macrotransaction is created, a macrotransaction for the direct transfer of funds from the card account to the payment system's NOSTRO contract account. Four entries are generated in the macrotransaction:







The transaction amount (15 USD) is converted into the contract currency (EUR). As a result, an entry from the card account to the standard FX contract account is generated for the converted amount of 11 EUR. The settlement amount of 10 EUR is sent to the payment system.

- If the value is "F" the transaction amount is blocked and debited from the contract if the card has an account in the transaction currency. Macrotransactions will be generated in the same way as when the USE\_TRANS\_AMOUNT=<value>; tag value is "Y". If the account in the transaction currency is absent, the settlement amount converted into the contract currency will be debited.
- An **exception** is when the "Y" value of the USE\_TRANS\_AMOUNT=<value>; tag is set, the currency is the same, but the transaction amount and settlement amount differ. This situation may occur, for example, when a fee charged by the payment system to the issuing bank is included in the settlement amount.

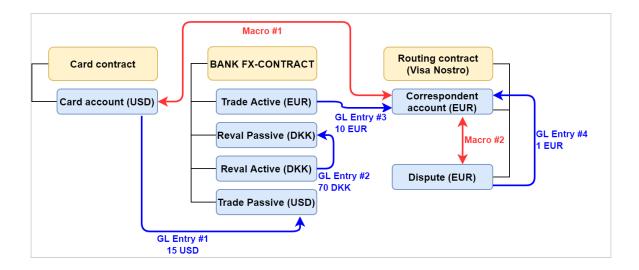
For entries to be correctly generated do as follows:

- Configure a special account for the bank routing contract.
- Set the code of this account as the value of the CHANGE\_CURRENCY global parameter; for more information, see the section "Calculating the debited amount (USE\_TRANS\_AMOUNT tag)", and the document "Way4 Global Parameters".
- Example 4. A transaction with a card on a "foreign" device was made with the following parameters:

Trans. Curr./Amount	Settl. Curr./Amount	Contract Curr.	FI Curr.
10 EUR	11 EUR	USD	DKK

Two macrotransactions are generated:

- Macrotransaction for the direct transfer of funds from the card account to the payment system's NOSTRO contract account for the transaction amount; see an example of entries in the figure.
- Macrotransaction for the amount of the difference between the transaction amount and settlement amount (for the fee amount). This amount is debited from a bank routing contract's account that was configured using the CHANGE\_CURRENCY global parameter.



## 2.2.3 Changing the local currency

After configurations of a new FI have been successfully copied, its local currency may be changed.



After copying configurations, clear the Parent Scheme field of all Account Schemes for the new FI before changing the local currency.

To change the currency, select the FI in the "Financial Institutions" form (see the section "Basic FI parameters") and click the [Currency] button. In the dialog box that opens, make sure that the currency will be changed for the necessary FI and click the [Change] button.

In the dialog box, select a new FI currency and click the [Proceed] button. As a result, the value of the *Local Currency* field in the "Financial Institutions" form will change as well as the values of the following fields (if they were set to the local currency when the procedure was run):

- Currency of Account Schemes and account templates registered in the FI (the Currency field).
- Currency of contracts registered in the FI and their accounts (the Curr field).
- In services registered in the FI:
  - Fee currency (the Fee Curr field)
  - Account currency for generating document posting rules (the Account Curr field).
  - Settlement currency (the Settl Curr field).
- In FX schemes registered in the institution (the Currency field in the "Full → Configuration Setup →
  Accounting Setup → FX Scheme" form).





When registering a new financial institution and copying main settings from another financial institution (for more information, see the section "Copying FI configurations"), the local currency for the new financial institution can be changed to the currency used in the standard financial institution as a foreign currency.

The selected foreign currency becomes a new local currency of the financial institution being registered while the previously local currency from the standard financial institution becomes the foreign one. Names of FX schemes, Account Schemes and accounts will be changed respectively.

Note that account numbers do not change, but their standard names do (in the *Account Name* field, the account name's last word is "Local" or a currency code). Accordingly, only the currency at the end of the account name, separated by a space, will be changed, for example, "Merchant Receivable **Local**", "Merchant Receivable **USD**".



The local currency of an institution for which contracts have already been created and transactions performed cannot be changed. If an attempt is made to make this change in the system, the error message will be displayed: "There has already been GL activity for this institution. Transformation can not be done. Use clear balance procedure".

### 2.2.4 Changing Interchange routing configurations

Interchange routing contracts are used during settlement with international payment systems as counterparty contracts to post of documents generated as a result of transactions involving cards, devices and financial institutions not registered in the system, etc. (see the document "Interchange Routing"). To set up routing contracts in Way4, use the "Interchange Routing Contracts" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  Interchange Routing Contracts).

When basic configurations are copied to a new FI, Interchange routing contracts are set up according to the parameters of the source financial institution.

To change the message channel and the FI through which settlement will be performed, select the FI in the "Financial Institutions" form and click the [Routing] button.

In the "Routing for <name of FI>" dialog box, make sure that routing parameters will be changed for the necessary FI and click the [Routing] button.

In the "Redefine Channel" dialog box (see the figure below), specify:

- In the Routing Channel field a channel from the list of channels registered in the system (Full →
  Configuration Setup → Main Tables → Message Channels).
- In the By Institution field the FI through which settlement will be performed.





After the [Proceed] button is clicked, the system will change the channel to the specified one. When the procedure is completed, the "Channel has been redefined" message will be generated.

### 2.2.5 Default contract classifiers for financial institutions

A default classifier that is set up for a financial institution is used if this classifier is not set for a contract.

The list of default contract classifiers for a financial institution is configured in the form "Classifiers for <financial institution name>" (Full → Configuration Setup → Main Tables → Financial Institutions → [Classifiers]).

For more information see the section "Configuring default classifiers" of the document "Way4 Client and Contract Classifiers".

## 2.3 Changing additional FI configurations

Depending on the modules used, the following configurations may be set up for a new FI:

- · Card production parameters.
- · Contract types and subtypes.
- · Parameters for interaction between financial institutions.
- Configuring identifiers.
- Recording operations in bank contract accounts (Institution Specifications).
- FI interbranch routing.

### 2.3.1 Card production parameters

To issue cards, it is necessary to specify a card number range. Card production parameters are set up in the "Bank Production Parameters" form (Full → Configuration Setup → Card Production Setup → Bank Production Parameters) and in child forms of the form (for more Information, see the document "Configuring WAY4 for Magnetic Stripe Card Issuing").



### 2.3.2 Contract types and subtypes

It is necessary to specify issuing contract types and subtypes. For more details on configuring contract subtypes, see the section "Contract Types" of the document "Products and Contract Subtypes".

#### 2.3.3 Parameters for interaction between financial institutions

Parameters for interaction between banks participating in settlements with payment systems (including affiliated banks) must be configured in Way4. To do so, the "Bank Acquiring Parameters" form is used (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters); for more information, see the section "Bank Acquiring Parameters" Dictionary" of the document "Way4 Dictionaries".

This section contains the following information:

- "Interaction between affiliated banks and a sponsor bank".
- "Configuring file exchange in bank and payment systems".

#### 2.3.3.1 Interaction between affiliated banks and a sponsor bank

Parameters for online interaction between affiliated banks and a sponsor bank are registered in the "Bank Acquiring Parameters" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Main Tables  $\rightarrow$  Bank Acquiring Parameters):



#### For setup:

- Add a new record by clicking the [Ins] button and fill in the following fields:
  - Acq ID financial institution identifier that is used during online message exchange.
     Generally, the identifier matches the Member ID field's value that is specified in the BIN table for the affiliated bank's records.
  - Select the financial institution that is a sponsor bank in the *Institution* field. A financial institution is selected from a list of financial institutions registered in Way4.
  - Is On Us drop-down list:
    - "Yes" member's devices (*Acq ID*) are registered in Way4 (a search for the corresponding contracts is made in the financial institution specified in the *Institution* field).
    - "No" no information on devices (*Acq ID*) with which a host-to-host interface is set up is found in Way4.



For more information about host-to-host interface setup, see the document "Host-to-Host Interchange Interface Setup".



- Fields VISA AID, VISA FID, VISA ATM AID, SMS FID, SMS PMC, SMS Settl ID, and SMS AWK are filled in according to the identifiers assigned to the sponsor bank by payment systems.
- 2. Check the configured parameters using the [Check] button in the form.



Parameters for online interaction with other payment systems (through a sponsor bank) are set up using various tags specified in the *Additional Parms* field of the form with full information about parameters (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters → [Full Info]).

Full description of the "Bank Acquiring Parameters" form's fields, including instructions for filling in the VISA AID, VISA FID, VISA ATM AID, SMS FID, SMS PMC, SMS Settl ID, and SMS AWK fields are given in the section "Bank Acquiring Parameters" Dictionary" of the document "Way4 Dictionaries".

#### 2.3.3.2 Configuring file exchange in bank and payment systems

For file exchange between bank and payment systems, set parameters for interaction in the "Bank Acquiring Parameters" form (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters); see the registration procedure in the section "Bank Acquiring Parameters" Dictionary" of the document "Way4 Dictionaries".

### 2.3.4 Configuring identifiers

For a new institution, it is necessary to set up the FI identifier according to the classification system used by the corresponding payment system (Member ID for Mastercard, Center BIN for Visa, etc.), as well as the acquirer BIN assigned to the financial institution by the payment system. To configure these parameters in Way4, use the "Interchange Routing Contracts" form; for more information, see the document "Interchange Routing").

# 2.3.5 Recording operations in bank contract accounts (Institution Specifications)

The "Institution Specifications" form is used to set bank contracts whose accounts will be used to record amounts for which there is uncertainty, balances of closed contracts, and other operations (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Accounting Setup  $\rightarrow$  Institution Specifications). This form can also be used to manage liabilities.





For more information about bank contracts, see the section "Financial institution's bank account contracts".

#### The form's fields:

- Institution name of a registered financial institution.
- *Dispute Contract* bank contract whose accounts will be used to keep track of documents with processing errors.
- Deposit Contract bank contract whose accounts are used to reflect operations that transfer funds from issuing contract accounts when they are closed and to keep off-balance sheet records for credit limit.
- Liability Contract bank contract through which liabilities are managed. When an authorization request for the FI's card is processed, the system will check the contract's balance and usage limiters. A liability contract may be either a special bank contract or a standard bank contract (XXX-BRANCH\_NOSTRO-, XXX-DEPOSIT). A minimum limit on the amount available in this contract may be set for a contract (see a description of the Min Deposit and Usage % fields).
- Min Deposit minimum limit on the amount available that may be set for a contract specified in the Liability Contract field. If it is found during processing of an authorization request that the amount available of the contract specified in the Liability Contract field is less than the minimum limit, the system will return a negative response code.
- Usage % percentage of the amount available of the contract specified in the Liability Contract field. If it is found during processing of an authorization request that the amount available after the authorization amount is withdrawn is less than this percentage of the current balance, the system will return a negative response code.

### 2.3.6 Fl interbranch routing

It is necessary to set up Interbranch routing between the configured FI and the ones already registered in the system. To do this, use the "Interbranch Routing" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  Interbranch Routing). For more details about setting up Interbranch routing, see the section "Interbranch operations".

## 2.4 Deleting financial institutions

Financial institutions are deleted in two steps in the following order:

1. First, delete all objects belonging to this FI. To do this, execute the special procedure "Clear Financial Institution". As a result of this procedure, all objects belonging to the FI (clients, contracts, Products, Account Schemes, Service Packages, macrotransactions, etc.) are deleted from the database. After the procedure is completed, the "Branch Purged" message will appear.





If another financial institution is set in the *Clearing In* field for the FI being deleted, the "Clear Financial Institution" procedure can only be executed after all financial documents referring to accounts, account templates, and accounting entries of the FI being deleted have been moved to an archive. This is done using standard "Housekeeping" module tools (see the document "Way4 Housekeeping").

2. In the "Financial Institutions" form (see the section "Basic FI parameters"), delete the FI entry by clicking the [Del] button.



It is forbidden to clear a configured FI from the "Financial Institutions" form without running the "Clear Financial Institution" procedure first.

## 2.5 Moving clients and contracts to another FI

When moving a client and contract record (contract tree) from one independent financial institution to another independent financial institution, note the following:

- The move is made manually using a special menu item.
- It is not possible to move a subcontract without moving the parent one.
- In order for a record to be moved, the values of the Clearing In fields in the "Financial Institutions" form (Full → Configuration Setup → Main Tables → Financial Institutions) of the two financial institutions involved must match.
- Entries for transferring funds between old and new GL accounts are generated automatically only if accounts were renumbered when the contract was moved (for more information, see the section "Changing Account Numbers" of the document "Way4 Accounting)".

To move a client and contract record (contract tree) from one FI to another, do as follows:

1. In the "Financial Institutions" form check that Clearing In field values are the same for both financial institutions. If necessary, set the values manually (Full → Configuration Setup → Main Tables → Financial Institutions). This action does not require additional checks of financial institution parameters using the [Check] button in the "Financial Institutions" form.



All processes that are run during daily procedures and leading to the creation of accounting entries (for more information, see the document "Daily Procedures") must be stopped while the *Clearing In* value is changed, since otherwise entries may be generated incorrectly.

The value of the *Clearing In* field is changed only for the period during which objects are being moved. At the end of this period, the field value must be restored.



Select the user menu item "Full → DB Administrator Utilities → Special Contract Utilities →
 Change Contracts Institution". As a result, the "Change Contracts Institution" form will be
 displayed. A contract can be selected in this form:



Note that in the "Change Contracts Institution" form, a list of contracts that do not have parent contracts is shown, since this procedure cannot be used to transfer a subordinate contract without transferring the parent contract.

In this form, select the necessary contract and click the [Change] button. In the "Get Financial Institution" form that opens, select the financial institution to which objects will be moved and click the [Proceed] button. If data are moved successfully, the "Contract moved" message will be displayed on the screen.

After this operation is executed, only the client record will remain in the source FI, and the system will create the client record, its contract (contract tree) and its history in the target FI.



When a client record is created in a new FI, Way4 performs the following actions:

- If the UNIQUENESS\_CLIENT\_REG\_NUMBER parameter is set to "Y" (see the document "Way4 Global Parameters"), a new client record will not be created when Way4 finds a client with the same registration number in the target FI, and the contracts (contract tree) will be linked with the existing client record.
- If the UNIQUENESS\_CLIENT\_NUMBER parameter is set to "Y" (see the document "Way4 Global Parameters"), a new client record will not be created when Way4 finds a client with the same number in the target FI, and the contracts (contract tree) will be linked with the existing client record.
- In other cases, the system checks for a client record by short name, registration number, and client number. If there is no corresponding client record in the target financial institution, a new client record will be created and contracts (contract tree) will be linked with it.
- 3. Restore the original value in the Clearing In field of the FI where it was changed (see item 1).

For a client and contract record (contract tree) to be successfully moved from one financial institution to another, the following conditions must be met in each financial institution:

 Values of Clearing In fields in the "Financial Institutions" form must match (Full → Configuration Setup → Main Tables → Financial Institutions).



- Client categories must match (for the list of registered client categories see the Client Category
  field in the "Client Types" form; "Client Types" "Full → Configuration Setup → Client Classifiers →
  Client Types").
- Products must have the same code; the value of the Code field in the "Products" form (Full →
  Configuration Setup → Products → Product Definition → Products). A check is made if the Product
  field is filled in for the contract that is being moved.
- Subordinate Products must have the same parent Product or the same Product template.
- In Service Package settings in the "Service Packs" form, the contract type for a "new" subtype
  must be the same as for the contract that is being moved (Full → Configuration Setup → Products
  → Service Packs).
- Contract subtypes card contract, device contract or account contract must have the same code (Full → Configuration Setup → Contract Types → [Sub Types]).
- Service Packages must have a common "parent" Package (Parent Pack field in the "Service Packs" form) and/or the same code (Code field) if the Product field is not filled in for the contract that is being moved (Full → Configuration Setup → Products → Service Packs). Moreover, the Service Package in the new financial institution must have been approved at least once, meaning that an active record about this Service Package (SERVICE\_PACK\_APPROVED) must be registered in Way4. Then it is possible to move a record for a client and contract when the Service Package in the new financial institution has the status Is Ready=Not Ready.
- Account Schemes must have a common "parent" Account Scheme (Parent Scheme field in the
   "Account Schemes" form) and/or the same code (Code field) if the Product field is not filled in for
   the contract that is being moved (Full → Configuration Setup → Products → Account Schemes).
   The Account Scheme in the new financial institution must be approved (the field Is Ready=Ready).

Also note that if the new financial institution has more than one Service Package/Account Scheme with the same code, a contract will not be moved and Way4 displays the message: "Can not find compatible service pack"/"Can not find compatible account scheme", respectively.

Possible system error messages that occur during data transfer are described below:

- "Enabled only for intraclearing": it is only possible to move a record about a client and their contract (contract tree) from one independent financial institution to another if the values of the *Clearing In* fields in the "Financial Institutions" form of both financial institutions involved are the same. To resolve the error, check the specified settings.
- "Can not find compatible Product": when searching for an appropriate Product in the target financial institution, no required Product was found.
- "Contract number does not match its range": when searching for an appropriate Product in the target financial institution, no Product with the required contract subtype was found.
- "Can not find compatible account scheme": an appropriate Account Scheme for the contract
  being moved was not found in the new financial institution. This error message occurs if the
  Product field is not filled in for the contract being moved. To resolve the error, check the settings
  of the Parent Scheme and Code fields in the "Account Schemes" form (Full → Configuration Setup
  → Products → Account Schemes).
- "Can not find compatible service pack": an appropriate Service Package for the contract being moved was not found in the new financial institution. This error message occurs if the *Product*



field is not filled in for the contract being moved. To resolve the error, check the following in the "Service Packs" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Products  $\rightarrow$  Service Packs):

- Parent Pack and Code field settings.
- Contract Type and Client Category.
- Make sure that the Service Package in the new financial institution has been approved at least once.
- "Can not find compatible contract subtype": an appropriate contract subtype for the contract being moved was not found in the new financial institution. This error message occurs if the Product field is not filled in for the contract being moved. To resolve the error, check the following in the "Card Contract Types"/"Device Contract Types"/"Accounting Contract Types" form (Full → Configuration Setup → Contract Types):
  - RBS Code field settings.
  - · Client Category.
  - Make sure that the contract types (Contract Type) for this subtype are the same.
- If contracts are being copied to a new institution, FX rates can be copied from the old institution to the new one (for example, for the appropriate rates to be used when reversing a transaction). To do so, run the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → FX Rates copy for FI". A form will open to select the date on which rates are being copied, the institution from which the rates are being copied and the target institution.

  Date From, FI from and FI to

Fill in the fields of this form and click the [Proceed] button.



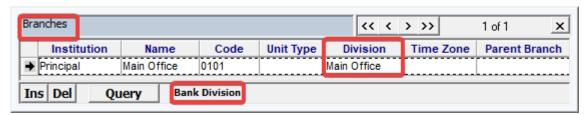
# 2.6 Configuring bank branches and divisions

Bank branches and divisions are configured in the following forms:

- "Branches" form".
- "Bank Divisions" form".
- "Unit Types" form".

#### 2.6.1 "Branches" form

Branches are configured in the "Branches" form (Full  $\rightarrow$  Main Tables  $\rightarrow$  Branches):



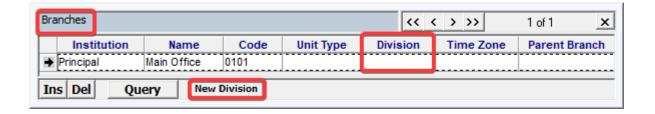
#### The form's fields:

- Institution the financial institution to which the branch belongs.
- Name branch name.
- Code branch code. The code must be unique.
- Unit Type type of structural unit specified in the Division field. Selected from the list configured
  in the "Full → Configuration Setup → Main Tables → Unit Types" form, see the section "Unit Types"
  form".
- Division bank structural unit (for example, a department) for this branch (used to register additional information about a bank branch). To fill in this field, click the [New Division] button. A new record will be automatically created in the "Bank Divisions" form (Full → Configuration Setup → Accounting Setup → Bank Divisions) and the "Bank Division was created" message will open. After clicking [OK] in the message window, the "New Division..." form will open. Specify additional information about the bank branch in this form (see the section "Bank Divisions" form").
- Time Zone sets the shift in the time messages generated by Events can be sent (see the document "Configuration of Client Messages"). This field does not affect the daily opening procedure.
- Parent Branch parent branch. This field allows a branch hierarchy to be configured.

The [Bank Division] button is used to view additional information for a branch created earlier with the [New Division] button. The button is available if the *Division* field is filled in for the branch record.

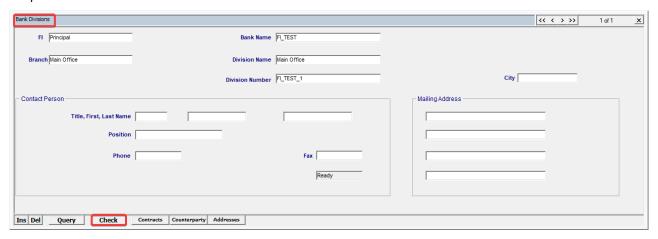
The [New Division] button is used to create additional information for a branch. The button is available if a record was not created for the branch in the "Bank Divisions" form.





### 2.6.2 "Bank Divisions" form

The "Bank Divisions" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Accounting Setup  $\rightarrow$  Bank Divisions) is used to keep records of a bank's structural divisions:



The form contains the following records:

- Records created manually in the "Branches" form. These records contain additional information about FI branches.
- Records created manually in the "Bank Divisions" form for linking to financial institutions. For example, to store a bank mandate in which information about the creditor's branch is registered (for more information, see the document "SEPA Interface Setup" provided according to a separate agreement with OpenWay). These records contain additional information about the bank.
- Technical records created to register bank contracts: XXX-RBS, XXX-CLIENTS(ISSUER), XXX-NOSTRO, XXX-AFFILIATED LORO / NOSTRO, XXX-ACQUIRER (for more information, see the section "Registering bank contracts"). These records are not used when configuring additional information for financial institutions and branches.

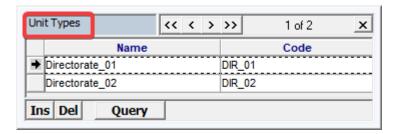
Records of additional information about a financial institution and institution branches are used, in particular, to register addresses. For example, a special type of address can be registered for an institution, in which the institution's municipality code, used when gathering statistics, is specified.

The form's fields and buttons are described in the section "Financial institution's bank account contracts".

## 2.6.3 "Unit Types" form

The "Unit Types" form is used to keep records of the bank's structural unit types, for example, office or department types (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Main Tables  $\rightarrow$  Unit Types):





#### The form's fields:

- Name bank structural unit name.
- Code bank structural unit code.

These records are used when filling in the *Unit Type* field of the "Branches" form ("Full  $\rightarrow$  Main Tables  $\rightarrow$  Branches", see the section "Branches" form").



# 3 Financial institution's bank account contracts

This section contains the following information:

- Bank contract types.
- Registering bank contracts.

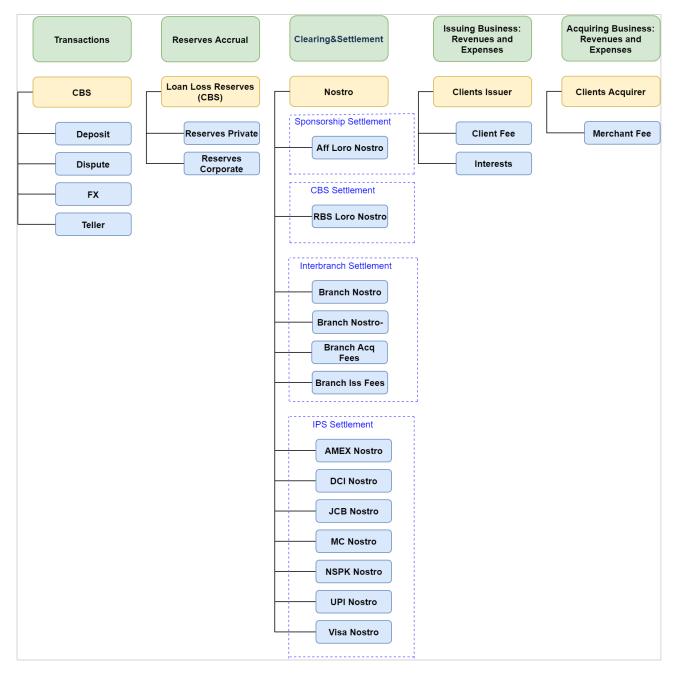
# 3.1 Bank contract types

A bank account contract is a contract regulating relations between a financial institution (issuer and/or acquirer) with a participant in settlements for card transactions (payment system, cardholder, merchant client, bank branch).

Bank account contracts determine a set of contract accounts, rules for making and recording financial institution operations in the system.



The figure shows information about the kinds of bank contracts that are registered in the system to reflect the bank's cash flows:



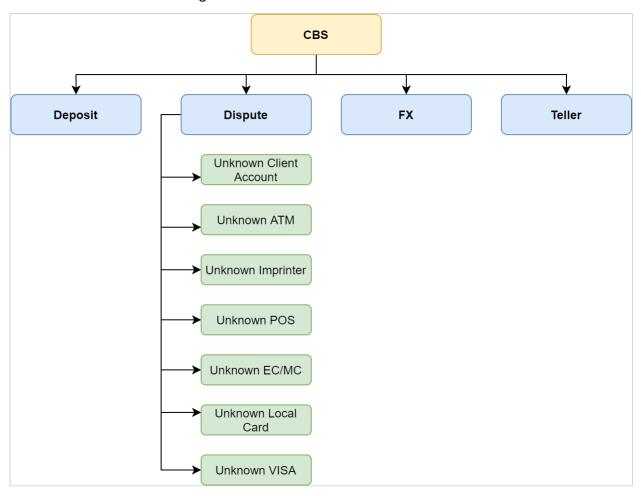
- CBS contracts are contracts to record operations made with cards (see the section "CBS contracts").
- Loan Loss Reserves (CBS)— contracts to reserve possible loan loss or similar loss (see the section "Loan Loss Reserves contracts").
- NOSTRO contracts are bank contracts to record settlements with branches, payment systems, affiliate banks, partner organizations, etc. (see the section "NOSTRO contracts").
- Clients (Issuer) contracts to record the financial institution's revenue and expenses from issuer operations (see the section "Clients (Issuer) contracts").



 Clients (Acquirer) – contracts to record the bank's revenue and expenses from acquirer operations (see the section "Clients (Acquirer) contracts").

#### 3.1.1 CBS contracts

CBS contracts are the following bank account contracts:



- XXX-DEPOSIT (XXX-Branch Deposit) contract whose accounts are used to reflect the following operations:
  - Transferring funds from issuing contract accounts when they are closed (for more information, see the section "Closing contracts" of the document "Issuing Module").
  - Keeping off-balance records for credit limit (for more information, see the section "Off-Balance Accounting Subsystem" of the document "Way4 Account Schemes").
  - Generating entries between different types of accounts, for example, balance account off-balance account, including with high precision.
- XXX-DISPUTE (XXX-Dispute) dispute contract whose accounts are used to keep track of
  operations whose documents were processed with errors (see the section "Posting Documents
  with a Dispute Contract" of the document "Documents"). Examples of using this contract as a
  target contract:



- The target contract for an incoming message received through payment system channels could not be found in the database.
- No target contract Service was found for an incoming document generated based on a
  message from the payment system channel, or an incorrect account for document posting is
  specified in the Service. The target contract does not have a dispute account.
- An incoming presentment (first, second or reversal) could not be processed correctly due to an error during document matching. The target contract (card contract) does not have a dispute account.

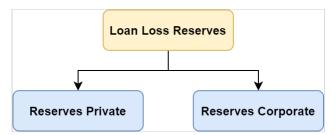
#### This contract has the following subcontracts:

- XXX-UNKNOWN\_ACCOUNT (XXX-Unknown Client Account) contract for recording operations for which the required account contract was not found.
- XXX-UNKNOWN\_ATM (XXX-Unknown ATM) contract for recording operations whose transaction message specifies an ATM that is not registered in the system.
- XXX-UNKNOWN\_IMPRINTER (XXX-Unknown Imprinter) contract for recording operations whose transaction message specifies an imprinter that is not registered in the system.
- XXX-UNKNOWN\_POS (XXX-Unknown POS) contract for recording operations whose transaction message specifies a POS terminal that is not registered in the system.
- XXX-UNKNOWN\_ECMC (XXX-Unknown EC/MC) contract for recording operations whose transaction message specifies a Mastercard card whose BIN matches a registered contract subtype, but the number does not exist in the system.
- XXX-UNKNOWN\_LOCAL\_CARD (XXX-Unknown Local Card) contract for recording operations whose transaction message specifies a local card whose BIN matches a registered contract subtype, but the number does not exist in the system.
- XXX-UNKNOWN\_VISA (XXX-Unknown VISA) contract for recording operations whose transaction message specifies a Visa card whose BIN matches a registered contract subtype, but the number does not exist in the system.
- XXX-FX (XXX-FX) conversion contract whose accounts are used by default to generate FX entries; includes a set of accounts for settlements on FX operations. In some cases, accounts for recording FX operations can be determined by FX schemes, additional FX types, and global parameters (for more information, see the document "Currency Conversion").
- XXX-TELLER (XXX-Teller) contract for recording cash operations (account replenishment via a financial institution's teller, cash withdrawal from an account).



### 3.1.2 Loan Loss Reserves contracts

Loan Loss Reserves contracts are the following bank account contracts:



- XXX-RESERVES\_CORP (XXX-Reserves Corp) contract whose accounts reflect accrued reserves for possible loan loss or similar loss for the operations of legal entities (merchants).
- XXX-RESERVES\_PRIV (XXX-Reserves Private) contract whose accounts reflect accrued reserves for possible loan loss or similar loss for the operations of individuals.

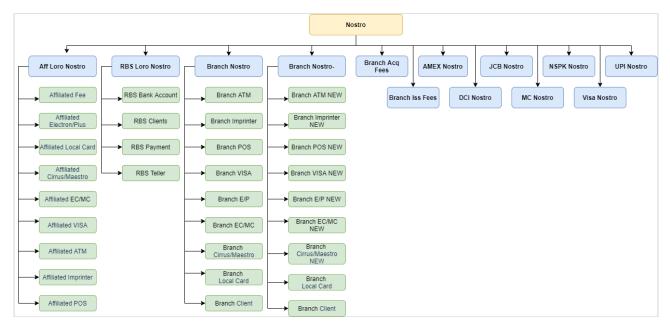
### 3.1.3 NOSTRO contracts

NOSTRO contracts are the following bank account contracts:

(i)

The figure does not show information about NOSTRO contract subcontracts separately for each payment system.

For more information, see the section "Standard interchange routing contracts" of the document "Payment System Settlement in Way4".



 XXX-AFF\_LORO\_NOSTRO (001-Aff Loro) – contract for recording cash flow between partner banks (for more information, see the document "Host-to-Host Interchange Interface Setup"). This bank contract has several subcontracts to record fees, transactions with a certain card or device type:



- XXX-AFF\_FEE (XXX-Affiliated Fee) contract for recording fees when making transactions with cards.
- XXX-AFF\_EP\_CARD (XXX-Affiliated Electron/Plus) contract that is used for transactions with a partner bank's Electron/Plus cards.
- XXX-AFF\_LOCAL\_CARD (XXX-Affiliated Local Card) contract that is used for transactions with a partner bank's Local Card cards.
- XXX-AFF-CIRRUS\_CARD (XXX-Affiliated Cirrus/Maestro) contract that is used for transactions with a partner bank's Cirrus/Maestro cards.
- XXX-AFF-ECMC (XXX-Affiliated EC/MC) contract that is used for transactions with a partner bank's Mastercard cards.
- XXX-AFF-VISA\_CARD (XXX-Affiliated VISA) contract that is used for transactions with a partner bank's Visa cards.
- XXX-AFF\_ATM (XXX-Affiliated ATM) contract for recording operations made at a partner bank's ATMs.
- XXX-AFF\_IMPRINTER (XXX-Affiliated Imprinter) contract for recording operations that are made using a partner bank's imprinters.
- XXX-AFF\_POS (XXX-Affiliated POS) contract for recording operations that are made using a partner bank's POS terminals.
- XXX-RBS\_LORO\_NOSTRO (XXX-RBS Loro/Nostro) contract for recording settlements with the CBS (for recording cash flow in accounts registered in the CBS). The contract is used, for example, when a payment is made to a legal entity's account that is not registered in Way4. This bank contract has several subcontracts:
  - XXX-RBS\_BANK\_ACCOUNT (XXX-RBS Bank Account) contract for recording operations in which the counterparty is a bank account that is not registered in Way4.
  - XXX-RBS\_CLIENT (XXX-RBS Clients) contract for recording operations in which the counterparty is a client account that is not registered in Way4.
  - XXX-RBS\_PAYMENT (XXX-RBS Payment) contract for recording payments in the CBS.
  - XXX-RBS\_TELLER (XXX-RBS Teller) contract for recording operations made at the bank's teller.
- XXX-BRANCH\_NOSTRO (XXX-Branch Nostro) contract for recording interbranch operations in the "old" mode (for more information, see the section "Configuring interbranch routing"). "XXX-BRANCH\_NOSTRO" subcontracts for contract interbranch routing are similar to "XXX-BRANCH\_NOSTRO-" subcontracts (see the description below).
- XXX-BRANCH\_NOSTRO- (XXX-Branch Nostro NEW) contract for standard recording of
  interbranch operations to be recorded in bank contract accounts of the head financial
  institution (for more information, see the section "Configuring interbranch routing"). This bank
  contract has the following interbranch routing subcontracts:
  - XXX-BRANCH\_ATM (XXX-Branch ATM NEW) another branch's ATM contract.
  - XXX-BRANCH\_IMPRINTER (XXX-Branch Imprinter NEW) another branch's imprinter contract.

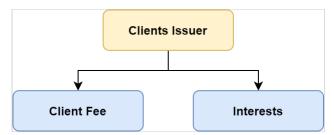


- XXX-BRANCH\_POS (XXX-Branch POS NEW) another branch's POS terminal contract.
- XXX-BRANCH\_VISA (XXX-Branch VISA NEW) contract for Visa cards that belong to another branch.
- XXX-BRANCH\_EP (XXX-Branch E/P NEW) contract for Electron/Plus cards that belong to another branch.
- XXX-BRANCH\_ECMC (XXX-Branch EC/MC NEW) contract for Mastercard cards that belong to another branch.
- XXX-BRANCH\_CIRRUS (XXX-Branch Cirrus/Maestro NEW) contract for Cirrus/Maestro cards that belong to another branch.
- XXX-BRANCH\_LOCAL\_CARD (XXX-Branch Local Card NEW) contract for cards that belong to other payment systems (neither Visa, nor Mastercard) and to another branch.
- XXX-BRANCH\_CLIENT (XXX-Branch Client NEW) general contract for all account contracts
  of another branch.
- XXX-BRANCH\_ACQ\_FEES (XXX-Branch Acquiring Fees) contract for recording interbranch settlement fees for acquirer operations.
- XXX-BRANCH\_ISS\_FEES (XXX-Branch Issuing Fees) contract for recording interbranch settlement fees for issuer operations.
- XXX-AMEX\_NOSTRO (XXX-AMEX Nostro) contract whose accounts reflect settlements with American Express.
- XXX-DCI\_NOSTRO (XXX-DCI Nostro) contract whose accounts reflect settlements with Diners Club International (DCI).
- XXX-JCB\_NOSTRO (XXX-JCB Nostro) contract whose accounts reflect settlements with JCB.
- XXX-MC\_NOSTRO (XXX-MC Nostro) contract whose accounts reflect settlements with Mastercard.
- XXX-NSPK\_NOSTRO (XXX-NSPK Nostro) contract whose accounts reflect settlements with payment systems through NSPK OPCC (National Payment Card System Payment Clearing Center).
- XXX-UPI\_NOSTRO (XXX-UPI Nostro) contract whose accounts reflect settlements with UnionPay International (UPI).
- XXX-VISA\_NOSTRO (XXX-VISA Nostro) contract whose accounts reflect settlements with Visa.



## 3.1.4 Clients (Issuer) contracts

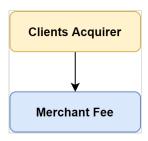
Clients (Issuer) contracts are the following bank account contracts:



- XXX-CLIENT\_FEE (XXX-Client Fee) used to record card issuing fees (card production and service).
- XXX-INTERESTS (XXX-Interests) interest contract; this contract's accounts are used to record revenue and expense from accrued interest. Usually, this contract is specified for each Account Scheme which assumes interest accrual, and can be redefined in an account template (for more information, see the document "Interest Accrual").

## 3.1.5 Clients (Acquirer) contracts

The XXX-MERCHANT\_FEE (XXX-Merchant Fee) bank account contract is a Clients (Acquirer) contract.

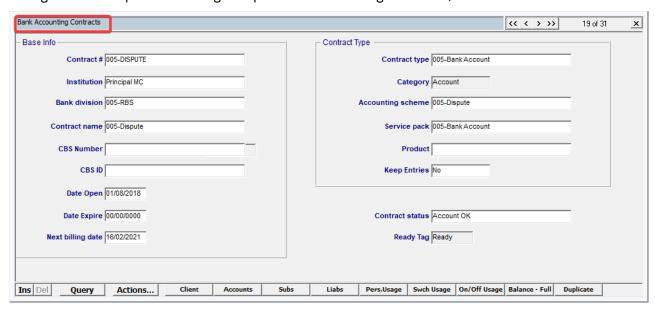


This contract is used to record fees from merchant acquiring operations.



## 3.2 Registering bank contracts

Bank contracts are registered in the system in the "Bank Accounting Contracts" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Accounting Setup  $\rightarrow$  Bank Accounting Contracts):



#### The form's fields:

- Contract # unique account contract number in the system; depending on the selected contract subtype (see the section "Contract Types and Subtypes" of the document "Products and Contract Subtypes").
- Institution financial institution for which this contract is registered; selected from a list of financial institutions registered in the "Financial Institutions" form (see the section "Registering financial institutions").
- Bank Division client record to register a bank contract; selected from a list of records registered in the "Bank Divisions" form (see the section "Bank Divisions" form"). The Bank Division field is mandatory. If this field is not filled in, a bank contract will not be approved; the procedure will terminate with the error: "Missing Bank Division".
- Contract Name name of the contract to search for in the list of registered contracts.
- CBS Number name of the corresponding account in the core banking system (CBS). When registering contracts that are subordinate to a higher ranking contract in a "Main/Sub" hierarchy, the CBS Number field's value is automatically inherited from the higher ranking contract. For subordinate contracts in the "Liability" hierarchy, the CBS Number field's value is not inherited from the higher ranking contract. Note that uniqueness of the contract CBS Number field value and automatic numeration of contract accounts is controlled by the UNIQUENESS\_RBS\_NUMBER global parameter's value (for more information, see the document "Way4 Global Parameters"). For backward compatibility, the CBS Number field can store data that is necessary for individual redefinition of the Custom Accounting Numeration procedure.
- CBS ID bank system identifier or identifier of the bank system group of accounts. This identifier must be specified in the Bank ID Code field of the "RBS Bank Identification Codes" table (Full →



Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  RBS Bank Identification Codes). The *CBS ID* field can be left empty.

- Date Open the contract opening date; by default, the current banking date is automatically specified in this field.
- Date Expire the contract expiry date.
- Next billing date start date of the next billing cycle.
- Contract Type account contract subtype (see the section "Contract Types and Subtypes" of the document "Products and Contract Subtypes").
- Category contract category: "Account" (the field is read-only).
- Accounting scheme name of the contract's Account Scheme (see the section "Account Schemes" of the document "Way4 Account Schemes"); from a list of Account Schemes registered in the system for the corresponding financial institutions and client categories.
- Service pack name of a Service Package that corresponds to the contract type to which the selected subtype belongs (see the section "Main parameters of Service Packages" of the document "Way4 Service Packages").
- Product Product name from a list of Products registered in the system for the corresponding financial institution and client type (for more information, see the document "Products and Contract Subtypes").
- Keep Entries responsible for generating statement entries that are registered based on macrotransaction data in the ENTRY table (for more information, see the document "Way4 Accounting"). The field can have the following values:
  - "Yes" statement entries are generated.
  - "No" statement entries are not generated.



By default, bank contracts are registered in the system with the "No" value in the *Keep Entries* field.

If the *Keep Entries* field was not filled in when registering a bank contract, the "No" value will be set automatically during the contract approval procedure.

- Contract Status contract status. A contract's status affects whether operations can be made with this contract and with all subcontracts (for more information, see the section "Contract Statuses" of the document "Way4 Dictionaries").
- Ready Tag contract's status that determines whether the contract can be used to record operations:
  - "Ready" contract parameters meet the conditions that are required to record operations.
  - "Not Ready" contract parameters were not approved.



After a contract is approved for the first time and gets the "Ready" status, the status can be changed to "Not Ready" due to changes to certain parameters in the contract hierarchy.

The form contains the following buttons:



- [Actions] the button's context menu contains the following actions:
  - "Approve" approve the contract.
  - "Create Order By Template" create an inherited standing payment order. Inherited standing payment orders are additionally configured and activated in the "Create Order by Template" (opens automatically after creation of an inherited payment order) or in the "Pers Orders for <account name>" form (to open the form, click the [Pers Orders] button in the contract form or in the "Accounts for <contract name>" form). For more information, see the section "Standing payment orders".
- [Client] open the "Clients for ..." form with information about a client with which this contract is linked (see the section "Information about bank contract clients").
- [Accounts] open the "Accounts for <contract name>" form that is used to view data on contract accounts, including for working with standing payment orders. Work with the form is described in the section "Viewing Contract Account Data" of the document "Way4 Accounting").
- [Subs] information about subordinate account contracts in a "Main/Sub" hierarchy. The fields in the form are identical to those in the "Bank Accounting Contracts" form.
- [Liabs] information about subordinate account contracts in a "Liability" hierarchy. The fields in the form are identical to those in the "Bank Accounting Contracts" form.
- [Pers.Usage], [Swch Usage], [On/Off Usage] information about contract usage limiters and their setup (for more information, see the document "Usage Limiters").
- [Balance Full] information about an account contract balance.
- [Duplicate] copy a bank contract. After the procedure has been performed, the new contract will be added to the list of bank contracts. It will differ from the original contract by an underscore added as a prefix to the name.

## 3.2.1 Standing payment orders

Financial institution standing payment orders are necessary, for example, to create documents for the following operations:

- Regulating reserves for possible loan loss or other similar losses.
- Interbranch routing operations.

To resolve these tasks, the following can be created:

- Template standing payment orders. Template orders are configured at the Account Scheme level
  and then used to create inherited orders at the contract level. The code of a template order must
  be unique in the Account Scheme. The code's uniqueness is checked when the template is
  checked and when approving the corresponding Account Scheme. For the registration procedure,
  see the section "Parameters of General/Template Standing Payment Orders" of the document
  "Standing Payment Orders".
- Inherited standing payment orders. These orders are created in a contract manually or using the
  Advanced Applications module (provided according to a separate agreement with OpenWay).
   General rules for creating inherited orders are provided in the section "Categories of Standing
  Payment Orders" of the document "Standing Payment Orders". For the registration procedure, see



- the section "Parameters of Inherited Standing Payment Orders Created on the Basis of a Template" of the document "Standing Payment Orders".
- Individual standing payment orders. These orders are registered and completely configured in a contract account. Starting from version 03.41.30, these payment orders can only be created for bank contracts. For the registration procedure, see the section "Parameters of Individual Standing Payment Orders" of the document "Standing Payment Orders".

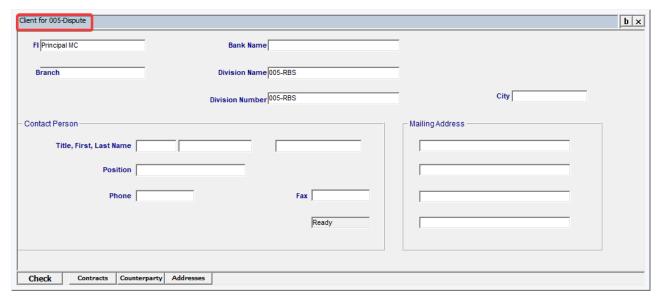
Additionally, see the section "Examples of Standing Payment Order Use" of the document "Standing Payment Orders".

Parameters of contract standing payment orders are viewed/configured as follows:

- In the "Bank Accounting Contracts" form, click the [Accounts] button. The "Accounts for <name of contract>" form will open (work with the form is described in the section "Viewing Contract Account Data" of the document "Way4 Accounting").
- In the "Accounts for <name of contract>" form, click one of the following buttons:
  - [Pers Orders] opens the "Pers Orders for <name of account>" form with inherited standing payment orders for a contract. The orders can be edited in this form.
  - [Indv Orders] opens the "Indv Orders for <name of account>" form where standing payment orders created without a link to a template are entered and edited.

### 3.2.2 Information about bank contract clients

Information about clients of financial institution bank contracts can be viewed and edited in the "Client for <name of contract>" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Accounting Setup  $\rightarrow$  Bank Accounting Contracts  $\rightarrow$  [Client]):



The form's fields are grouped as follows:

- · Information about a financial institution:
  - FI financial institution for which this record is registered is selected from a list of financial institutions registered in the "Financial Institutions" form (see the section "Registering financial institutions").



- Branch financial institution's branch (see the section "Configuring bank branches and divisions").
- Bank Name financial institution name.
- *Division Name* name of the client record to register a bank contract (for more information, see the section "Bank Divisions" form").
- Division Number unique identifier which can be used, for example, to find information about a client record in the database (for more information, see the section "Bank Divisions" form").
- City name of city (municipality).
- Data on the financial institution officer (contact person):
  - Title, First, Last Name
  - Position
  - Phone
  - Fax
- · Postal address:
  - Mailing Address four lines for the financial institution address.



In some financial institutions, it is necessary to support structured addresses when entering data, controlling data integrity and generating reports. Four separate fields to register client address data make it possible to do so. For example, an address can be structured as follows:

- first address line (Address Line 1) arbitrary text.
- second address line (Address Line 2) street name.
- third address line (Address Line 3) house number.
- fourth address line (Address Line 4) office number.
- Ready Tag client record's state that determines whether it is possible to use registered data:
  - Ready record parameters meet the conditions that are necessary to use registered data.
  - Not Ready record parameters were not approved.

The form contains the following buttons:

- [Check] validate the data in the form.
- [Contracts] access to the "Contracts for <Division Name>" form that contains registered contracts for each client record separately.
- [Counterparty] setup of payment participant details. A payment participant's code must be unique in a contract. It is used, for example, when configuring individual standing payment orders (for more information, see the section "Payment (Transaction) Party Bank Requisites" of the document "Documents", and the document "SEPA Interface Setup" provided according to a separate agreement with OpenWay).
- [Addresses] view additional addresses for the financial institution. For rules to search for an active address, see the section "Address Search" of the document "Way4 Dictionaries".



# 4 Interbranch operations

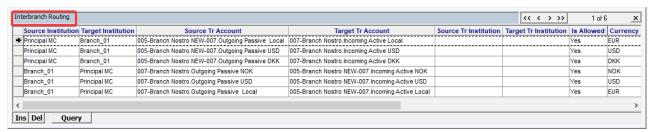
Interbranch Routing is a set of rules and procedures that are used to determine a source channel and/ or target channel when making operations between financial institutions and/or branches of a financial institution. For example, these rules determine the financial institution for macrotransactions that were generated when processing the document, routing contracts that will be used and routing contract accounts to which entries will be posted.

The section describes the following:

- "Interbranch Routing" table.
- Methods of interbranch routing setup.
- · Configuring interbranch routing.
- Rules for creating macrotransactions for interbranch operations.
- · Routing on-us transactions through a payment system.
- · Charging fees in favor of the parent FI.
- Deferred settlement with branches or affiliated banks.

# 4.1 "Interbranch Routing" table

The interbranch routing table is used for interbranch operations and is configured in the "Interbranch Routing" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  Interbranch Routing):



#### The form's fields:

- Source Institution transaction information source.
- Target Institution transaction information target.
- Source Tr Account source institution's account in which transactions are reflected.
   The account has the following format: "<name of bank contract> <name of contract account>
   <name of account currency or currency code>".

### For example:

- the entry "005-Branch Nostro NEW-007.Outgoing Passive USD" means that transactions will be reflected in the source institution's (the head office's) dollar account "Outgoing Passive" of the "005-Branch Nostro NEW-007" contract.
- the entry "007-Branch Nostro.Outgoing Passive USD" means that transactions will be reflected in the source institution's (the branch's) dollar account "Outgoing Passive" of the "007-Branch Nostro" contract.



- Target Tr Account target institution's account in which transactions are reflected. Data is shown as in the Source Tr Account field.
- Fields Source Tr Institution and Target Tr Institution are filled in if there is no direct "Parent" relationship between the source institution and target institution. They are used as follows:
  - The institution specified in the *Source Tr Institution* field will be the source institution for macrotransactions of the "Transit" type (on types of macrotransactions, see the section "Posting Macrotransactions" of the document "Documents").
  - The institution specified in the *Target Tr Institution* field will be the target institution for macrotransactions of the "Transit" type.
- Is Allowed permits or prohibits interbranch routing according to this rule:
  - "Yes" routing according to this rule is permitted.
  - "No" routing according to this rule is not permitted.
  - "Custom" when searching for a routing rule, an additional check of the rule is made according to parameters set in the custom function CUST\_INST\_ROUT\_ALLOWED. The "Custom" value can only be set after agreement with OpenWay.

The remaining fields are used to specify additional details of Interbranch routing rules:

- Currency transaction currency (the currency specified in this field is compared with the document's Settlement Currency).
- Target Category target category (for example, "Device", "Account" or "Card").
- Target Type type of target contract, the dictionary of all registered contract types may be found at "Full → Configuration Setup → Contract Types".
- Terminal Category device type ("ATM", "POS", "Imprinter", or "Infokiosk").
- Transaction Type transaction type; a drop-down list for this field becomes accessible after the
  target category is configured (see the Target Category field). The list is generated by selecting
  from the list of all transaction types the types with the corresponding target contract type (see
  the Target field in the "Full → Configuration Setup → Transaction Types → Transactions All"
  form).
- For Online:
  - "Yes" interbranch routing will be used for both financial documents and authorization documents.
  - "No" interbranch routing will only be used for financial documents; routing for authorization documents will be determined according to Interchange routing rules.
- For Trans Cond list for selecting transaction conditions.

# 4.2 Methods of interbranch routing setup

In Way4, there are several ways to set up Interbranch routing, that is to fill in the "Interbranch Routing" table:



Creating a complete Interbranch routing scheme that describes rules for operations between all
institutions registered in the system. To do so, the "Full → Configuration Setup → Routing → Set
Default Interbranch Routing" procedure is used; for more information, see the section
"Configuring interbranch routing".



The "Set Default Interbranch Routing" procedure generates a complete scheme of Interbranch routing rules and deletes all configurations made manually in the "Interbranch Routing" form.

- 2. Configuring routing for a separate financial institution. For setup:
  - In the "Financial Institutions" form, select the necessary FI and click the [Interbranch] button: Full → Configuration Setup → Main Tables → Financial Institutions.
  - In the form the opens, click the [Redefine] button and select "Set Default" from the context menu. After the procedure is executed, the "Routing set as Default" message will be generated.
  - The "Set Default" procedure is used to set up routing between financial institution branches (see the section "Interbranch operations") and also between independent head financial institutions and their branches (see the section "Routing between several head financial institutions").



The procedure configuring Interbranch routing for a separate financial institution deletes all configurations made for this financial institution manually in the "Interbranch Routing" form and generates configurations based on standard rules.

- 3. Copying routing configurations from another financial institution. To do so:
  - In the "Financial Institutions" form, select the necessary FI and click the [Interbranch] button: Full → Configuration Setup → Main Tables → Financial Institutions.
  - In the form that opens, check that routing is set up for the necessary institution, click the [Redefine] button and select "Copy From" from the context menu.



Note that all routing parameters except accounts in the *Source Tr Account* and *Target Tr Account* fields are copied from the another financial institution. The "Outgoing Passive" and "Incoming Active" accounts are specified in these fields.

4. Manual setup (adding or changing records) when custom accounting of various types of interbranch operations is necessary.



# 4.3 Configuring interbranch routing

Interbranch operations are recorded in bank contract accounts of the head financial institution (standard interbranch routing).



Earlier (before version 03.36.30) operations were not recorded in bank routing contracts of head financial institutions ("XXX-BRANCH\_NOSTRO-NNN", where NNN is the branch code).

To automate migration to the standard interbranch routing, contact Customer Support. It is not recommended to retain the old mode of working with interbranch entries.

To configure the functionality (and to migrate to the standard interbranch routing), do the following actions for the head financial institution:

- Check that posting entries for GL accounts in the head financial institution is enabled for interbranch routing see the section "Activating standard interbranch routing".
- Check for a special Account Scheme "XXX-Interbranch Loro/Nostro HO"; if it does not exist, register the Account Scheme according to the section "Configuring an Account Scheme".
- Register bank contracts for all subsidiary financial institutions based on the "XXX-Interbranch Loro/Nostro HO" Account Scheme; see the section "Configuring bank contracts to record interbranch operations".
- In the "Interbranch" form, check and specify, if necessary, the accounts of the created contracts; see the section "Configuring the "Interbranch Routing" table").



Starting from version 03.40.10, on initial installation of Way4, the interbranch routing functionality is partially supported in standard configurations, namely:

- The NEW\_INTERBRANCH\_ROUTING global parameter is set to "Y"; for earlier versions, the parameter is set to "N", that is, interbranch routing is not enabled.
- There is a registered Account Scheme "XXX-Interbranch Loro/Nostro HO" for the bank contract "Branch Nostro NEW".
- Bank contracts for recording interbranch operations are registered automatically using a special procedure.
- The "Interbranch Routing" table is filled in automatically as a result of the "Set Default Interbranch Routing" procedure.

## 4.3.1 Activating standard interbranch routing

To use the standard interbranch routing functionality, the mode for recording entries in GL accounts of the head financial institution's bank contracts must be enabled.

This can be done using:



- The NEW\_INTERBRANCH\_ROUTING global parameter with the value "Y" (default value). For more information, see the section "Posting of Macrotransactions" of the document "Way4 Global Parameters".
- The tag NEW\_INTERBRANCH\_ROUTING = Y specified in a specific head financial institution in the Special Parms field of the "Details for <name of financial institution>" form (Full → Configuration Setup → Main Tables → Financial Institutions → [Details]). This setting can be used in configurations with several head financial institutions (for more information, see the section "Routing between several head financial institutions").

## 4.3.2 Configuring an Account Scheme

If the "XXX-Interbranch Loro/Nostro HO" Account Scheme necessary to register a bank contract (see the section "Configuring bank contracts to record interbranch operations") is not registered and/or configured in the head financial institution, do as follows:

 In the "Bank Account Schemes" form, register Account Scheme parameters (Full → Configuration Setup → Accounting Setup → Bank Account Schemes → [Ins]):





An Account Scheme can be created by duplicating an existing (original) Account Scheme – "XXX-Interbranch Loro/Nostro".

A new Account Scheme should be created since the parameters of an existing Account Scheme are inherited by branches.

- 2. For all accounts participating in routing (Incoming Active/Passive and Outgoing Active/Passive), set the following parameters in the "Definition" form:
  - Set the Numeration Type parameter to "From GL"/"First Approval".
  - Set the Aggregate GL For parameter to "Sub GL" each bank contract account for interbranch routing must have its own GL number as it corresponds to a specific GL account in the CBS.
- 3. Approve Account Scheme value settings using the [Approve] button in the "Client Account Schemes" grid form.



## 4.3.3 Configuring bank contracts to record interbranch operations



A contract with the number:

- "XXX-BRANCH\_NOSTRO" (Contract name = 005-Branch Nostro) is a template contract for the "old" mode for recording interbranch operations (%BRANCH\_NOSTRO%).
- "XXX-BRANCH\_NOSTRO-" (Contract name = 005-Branch Nostro NEW) is a template contract for the "new" (standard) mode for recording interbranch operations (%-BRANCH\_NOSTRO-%).

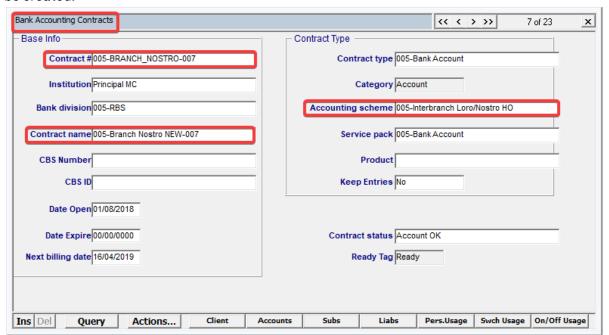
For more information about bank contracts, see the section "NOSTRO contracts".



When interbranch operations are performed, the "Branch Nostro" contract of the top financial institution in a hierarchy is never used.

To configure bank contracts "Branch Nostro NEW", do as following in the head financial institution:

1. Create bank contracts for each branch separately (Full → Configuration Setup → Routing → Set Default Interbranch Routing). When creating contracts to record standard interbranch routing, the template bank contract "XXX-BRANCH\_NOSTRO-" is used (Contract name=XXX-Branch Nostro NEW; Accounting scheme = "XXX-Interbranch Loro/Nostro HO").
The contract number is generated automatically according to a template "XXX-BRANCH\_NOSTRO-NNN", where NNN is the branch code (Branch Code in the "Financial Institutions" form) that is used for contract numbering of the corresponding branch: 002, 003, 112, etc. For example, for the "Branch\_01" branch with the code (Branch Code) "0007" in the head financial institution "Principal MC", the "005-BRANCH\_NOSTRO-007" routing contract will be created:





 Set the account numbers for new bank contracts that will be used for entries in the head financial institution (Full → DB Administrator Utilities → Special Contract Utilities → Renumber Subsidiary GL Account).



#### When:

- A new branch is registered by copying settings from another branch of the same head financial institution, a new contract "XXX-BRANCH\_NOSTRO-NNN" for the new branch is created automatically in the head financial institution (Full → Configuration Setup → Main Tables → Financial Institutions → [Init Settings]).
- The "XXX-Bank Account-<new code>" Service Package has been registered in the head financial institution, it will be assigned to a contract being created.

To optimize registration of bank contracts when migrating from the "old" to standard mode (in which interbranch entries are posted to bank contract accounts of the head financial institution), do as follows:

- Use the "XXX-Interbranch Loro/Nostro HO" Account Scheme to register one contract manually (Full → Configuration Setup → Accounting Setup → Bank Accounting Contracts); see above for the contract naming format.
- Run the "Full → Configuration Setup → Routing → New Interbranch Routing Contracts" procedure
  resulting in the creation of bank contracts (Nostro) like the first contract created manually for
  all the financial institution's branches.
- 3. Run the "Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  New Interbranch Routing Migration" procedure that changes routing settings, that is, new contracts will be used instead of "old" ones.
- 4. Set the account numbers for new bank contracts that will be used for entries in the head financial institution (Full → DB Administrator Utilities → Special Contract Utilities → Renumber Subsidiary GL Account):
  - Actual contract numbers correspond to numbers in the HeadOffice GL# (HD\_GL\_NUMBER) field of accounts opened for XXX-BRANCH\_NOSTRO branch contracts.
  - The *HeadOffice GL#* field is present in the account template in Account Schemes for bank contracts.



When specifying account numbers corresponding to numbers in the *HeadOffice GL#* field, observe the "mirrored" correspondence of accounts: "Incoming"/"Outgoing" and "Active"/"Passive".

That is:



• In the "old" Account Scheme (for example, "999-Interbranch Loro/Nostro") of the **branch**, select account numbers in the *HeadOffice GL#* field:



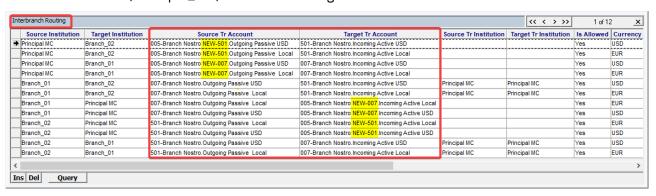
In a bank contract (for example, "XXX-BRANCH\_NOSTRO\_NEW-999") of the head financial
institution, to which this branch belongs, specify account numbers that were selected in
the aforementioned field.

## 4.3.4 Configuring the "Interbranch Routing" table

When the NEW\_INTERBRANCH\_ROUTING = Y global parameter is registered, the "Interbranch Routing" table is configured automatically after running the "Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  Set Default Interbranch Routing" procedure; form more information, see the section "Configuring bank contracts to record interbranch operations".

In case of migration from the "old" interbranch routing mode to a new one, change the accounts in the head financial institution. To do so, specify accounts of the new "XXX-Branch Nostro NEW" contract in the existing routing records for branches with the head office (fields *Source Tr Account* and *Target Tr Account*).

An example of configuring routing between two branches (Branch\_01 and Branch\_02) and the head financial institution (Principal\_MC) is shown in the figure:





New routing settings become effective immediately for documents whose "Source" contract and "Target" contract are in the head office. Transit entries will be generated correctly only after the new Interbranch Routing mode is enabled; see the section "Activating standard interbranch routing".

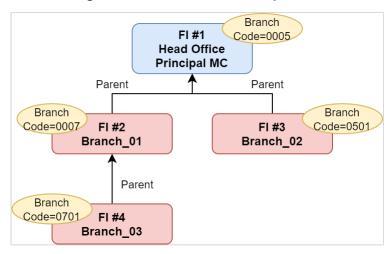


# 4.4 Rules for creating macrotransactions for interbranch operations

Rules for creating macrotransactions for interbranch operations are shown in the examples that follow:

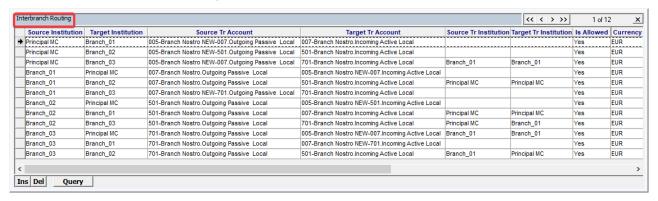
- Example 1. A child institution's card is used in a parent institution's device.
- Example 2. A child FI's card is used at an ATM of another child FI.
- Example 3. FI No.4's card is used in FI No.1's ATM.
- Example 4. FI No.4's card is used in FI No.3's ATM.

The following financial institution hierarchy is used in the examples:



- FI No.1: Principal MC head financial institution (Branch Code=0005)
- FI No.2: Branch\_01 branch No.1 of the head financial institution (Branch Code=0007)
  - FI No.4: Branch\_03 branch No.3, subordinate "Branch\_01" (Branch Code=0701)
- FI No.3: Branch\_02 branch No.2 of the head financial institution (Branch Code=0501)

To generate macrotransactions when making operations between specified financial institutions, the corresponding records in the Interbranch Routing table are used (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Routing  $\rightarrow$  Set Default Interbranch Routing):





The DEFAULT\_INST\_ROUTING global parameter affects generation of macrotransactions in branches. The parameter determines the need to search for an interbranch routing contract Service. For more information, see the section DEFAULT\_INST\_ROUTING" of the document "Way4 Global Parameters".



Way4 also supports the ability to use transit accounts of "Branch Nostro"/"Branch Nostro NEW" bank contracts to record operations between account contracts that are registered in the same financial institution (that is, to generate two entries instead of one even when debited and credited accounts are registered in the same financial institution).

This way, when a transfer is made from account contract 1 to account contract 2 that both belong to the same financial institution, one financial document, two macrotransactions, and two entries will be generated in the system:

- Dt: Issuing contract №1 Cr: Transit Account
- Dt: Transit Account Cr: Issuing contract №2

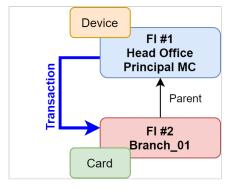
The functionality is implemented for specific transaction subtypes.

To set up the functionality, contact OpenWay Customer Support. The system is set up under an additional agreement with OpenWay.

For general principles of creating macrotransactions in Way4, see the document "Documents".

# 4.4.1 Example 1. A child institution's card is used in a parent institution's device

This section describes an example of creating a macrotransaction when a Visa card belonging to financial institution FI No.2 (Branch\_01) is acquired on the device of financial institution FI No.1 (Principal MC), that is the subordinate institution's card is acquired on a parent institution's device:

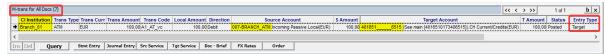


In this way, FI No.1 is a source, and FI No.2 is a target.

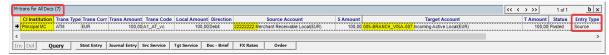
As a result of processing the financial document, the following macrotransactions (Macro) are generated:



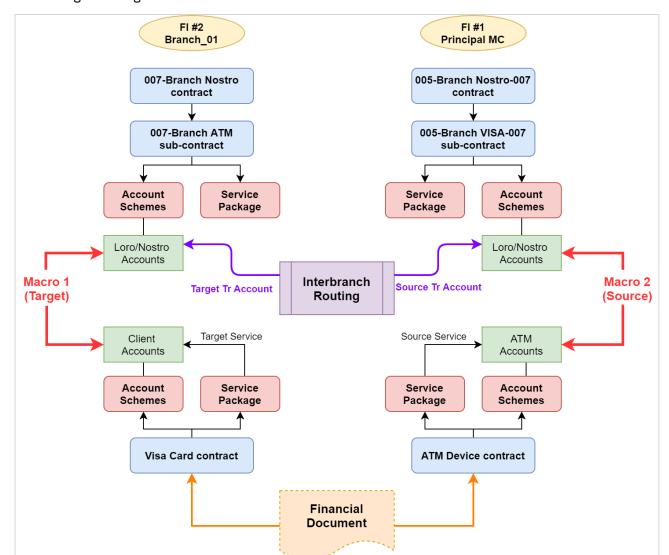
1. Macro 1 has the "Target" type, belongs to FI No.2 and occurs between the card contract and the "007-Branch ATM" contract, which is a subcontract of the "007-Branch Nostro" contract:



 Macro 2 has the "Source" type, belongs to FI No.1 and occurs between the ATM contract and the "005-BRANCH\_VISA-007" contract, which is a subcontract of the "005-BRANCH\_NOSTRO-007" contract:



A part of fields are hidden and are not shown in the "Macrotransactions – All" form (Date, Category, Class, S Fee, T Fee etc.).



Rules for generating macrotransaction for FI No.1 and FI No.2:

The algorithm by which Way4 determines which contract is the Nostro account contract, to which institution the macrotransaction will belong, and to which contract accounts posting will be made, is the following:

1. In the "Interbranch Routing" table, the system searches for an entry with the following transaction parameters:



- The Source Institution field contains "FI No.1".
- The Target Institution field contains "FI No.2".
- The *Currency* field contains the transaction currency (*Settlement Currency* from the document).
- Fields *Target Category*, *Target Type, Terminal Category*, and *Transaction Type* (hidden in the figure) must correspond to the document parameters or left blank.

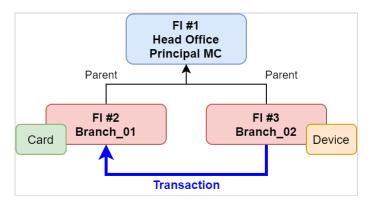


- If an entry matching these parameters is not found, the transaction is not allowed.
- 2. The accounts specified in the *Source Tr Account* and *Target Tr Account* fields of the found entry are considered. These are accounts of the corresponding financial institution's "Branch Nostro NEW" and "Branch Nostro" contracts.
- The system selects a corresponding subcontract of the "Branch Nostro" contract by the type of counterparty contract (target contract). This is the rule that determines that "007-Branch ATM" is selected as the pair for "VISA Card Contract" and "005-Branch VISA-007", for "ATM Device Contract".
- 4. Accounts to which macrotransactions must be posted are determined as follows:
  - For Macro 1 (Target):
    - A target contract account is determined by the card contract's target service.
    - A source contract account is determined by the value of the *Target Tr Account* field in the "Interbranch Routing" table.
  - For Macro 2 (Source):
    - A source contract account is determined by the device contract's source service.
    - A target contract account is determined by the target service of the "005-Branch VISA-007" subcontract. If the account is not specified in the Service or Service is not used at all, and the "005-Branch VISA-007" contract's Service Package contains the value "For All" in the *Use Def Service* field, then the account specified in the *Source Tr Account* field in the "Interbranch Routing" table will be used.
- 5. The entry will belong to the financial institution of the corresponding macrotransaction.



# 4.4.2 Example 2. A child FI's card is used at an ATM of another child FI

This section describes an example of creating a macrotransaction when a Visa card belonging to financial institution FI No.2 (Branch\_01) is acquired on the device of financial institution FI No.3 (Branch\_02), that is the subordinate institution's card is acquired in an ATM of another subordinate institution:



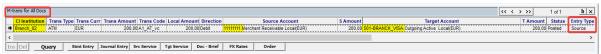
In this case, FI No.3 is a source, and FI No.2 is a target:

As a result of processing the financial document, three macrotransactions (Macro) are generated:

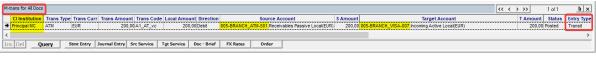
1. Macro 1 has the "Target" type, belongs to FI No.2 and occurs between the card contract and the "007-Branch ATM" contract, which is a subcontract of the "007-Branch Nostro" contract:



- A target contract account is determined by the card contract's target service.
- A source contract account is determined by the value of the *Target Tr Account* field in the "Interbranch Routing" table.
- 2. Macro 2 has the "Source" type, belongs to FI No.3 and occurs between the ATM contract and the "501-Branch VISA" contract, which is a subcontract of the "501-Branch Nostro" contract.



- A source contract account is determined by the device contract's source service.
- A target contract account is determined by the value of the *Source Tr Account* field in the "Interbranch Routing" table.
- 3. Macro 3 has the "Transit" type transit macrotransaction between the contracts of financial institution FI No.1. It occurs between the "005-Branch ATM-501" contract, which is a subcontract of "005-Branch Nostro-501", and the "005-BRANCH\_VISA-007" contract, which is a subcontract of "005-Branch Nostro-007":



Entry:





To generate a macrotransaction, records in the "Interbranch Routing" table between FI No.2 and FI No.1 and records between FI No.3 and FI No.1 are used.

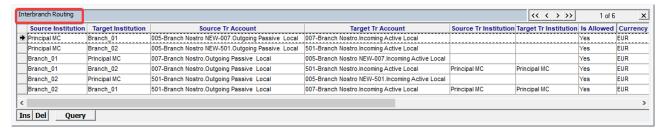
A search for accounts is made as follows:

- The source contract account is determined by the corresponding Service of the "005-Branch ATM-501" subcontract. If the account is not specified in the Service or Service is not used at all, and the "005-Branch ATM-501" contract's Service Package contains the value "For All" in the Use Def Service field, then the account specified in the Source Tr Account field (transit account) in the "Interbranch Routing" table will be used.
- The target contract account is determined by the "005-Branch VISA-007" subcontract's
   Service. If the account is not specified in the Service or Service is not used at all, and the
   "005-Branch VISA-007" contract's Service Package contains the value "For All" in the Use
   Def Service field, then the account specified in the Target Tr Account field (transit account)
   in the "Interbranch Routing" table will be used.

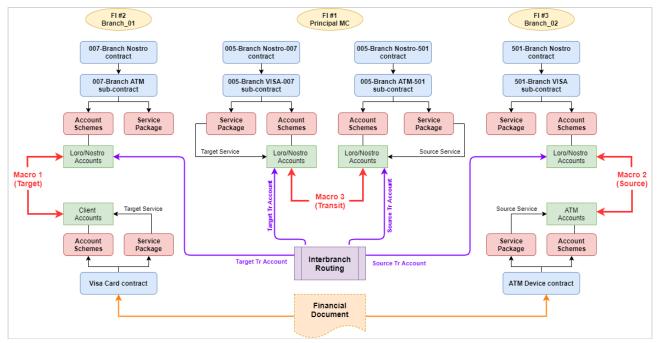


A part of fields are hidden and are not shown in the "Macrotransactions – All" form (Date, Category, Class, S Fee, T Fee etc.).

To generate macrotransactions between specified financial institutions, the corresponding records in the "Interbranch Routing" table are used:



Rules for generating the macrotransaction when a subordinate FI's card is used in an ATM belonging to another subordinate FI.



For more information about macrotransaction generation, see the section "Example 1. A child institution's card is used in a parent institution's device".

When the "old" interbranch routing mode was used according to which entries were not recorded in a bank contract of the head financial institution FI No.1 (in the "005-BRANCH\_NOSTRO-007" contract), a macrotransaction was generated between the contracts of FI No.2 and FI No.3 using contracts and accounts of the corresponding record in the "Interbranch Routing" table.

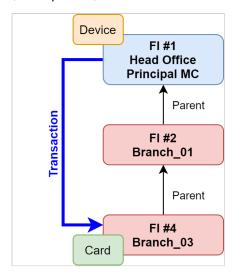
#### Entries:

- 1. Debit (Target Account): "007-Branch Visa" contract (subcontract of the "007-Branch Nostro" contract) Incoming Active account.
- 2. Credit (Source Account): "501-Branch ATM" contract (subcontract of the "501-Branch Nostro" contract) Outgoing Passive account.



## 4.4.3 Example 3. FI No.4's card is used in FI No.1's ATM

This section describes an example of creating a macrotransaction when a Visa card belonging to financial institution FI No.4 (Branch\_03) is acquired on the device of financial institution FI No.1 (Principal MC):



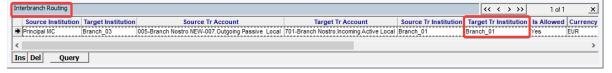
In this way, FI No.1 is a source, and FI No.4 is a target.

As a result of processing the financial document, three macrotransactions (Macro) are generated:

 Macro 1 has the "Source" type, belongs to FI No.1 and occurs between the device contract and the "005-Branch VISA-007" contract, which is a subcontract of the "005-Branch Nostro-007" contract:



This macrotransaction is different in the way a target contract account is determined – in "Interbranch Routing" table, a search is made for an entry with the following parameters:



- The Source Institution field contains "FI No.1".
- The Target Institution field contains "FI No.4".
- The *Currency* field contains the transaction currency (*Settlement Currency* from the document).
- The fields *Target Category*, *Target Type*, *Terminal Category*, and *Transaction Type* must correspond to the document parameters or be left blank.

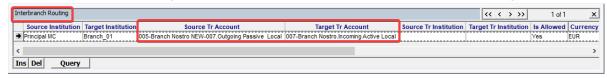
The value of the *Target Tr Institution* field in the found entry is considered. This FI's contract will be a target contract, that is, this field will contain "FI No.2".

2. Macro 2 has the "Transit" type, belongs to FI No.2 and occurs between the "007-Branch ATM" contract, which is a subcontract of "007-Branch Nostro", and the "007-BRANCH\_VISA-701" contract, which is a subcontract of "007-Branch Nostro-701":





In the "Interbranch Routing" table, a search is made for an entry with the following parameters:



- The Source Institution field contains "FI No.1".
- The Target Institution field contains "FI No.2".
- The *Currency* field contains the transaction currency (*Settlement Currency* from the document).
- The fields *Target Category*, *Target Type*, *Terminal Category*, and *Transaction Type* must correspond to the document parameters or be left blank.

The accounts in the *Source Tr Account* and *Target Tr Account* fields of the found record are considered. These are accounts of the corresponding financial institution's "Branch Nostro NEW" and "Branch Nostro" contracts.

According to the counterparty contract type, the system selects the corresponding subcontract of the "007-Branch Nostro" contract. It is this rule that determines that the "007-Branch ATM" and "007-Branch VISA-701" subcontracts will be selected.

Rules for generating a transit macrotransaction are the same as those for generating the "Transit" type macrotransactions in the section "Example 2. A child FI's card is used at an ATM of another child FI".

3. Macro 3has the "Target" type, belongs to FI No.4 and occurs between the card contract and the "701-Branch ATM" contract, which is a subcontract of the "701-Branch Nostro" contract:



A source contract account is determined in the same way as the target contract in the first macrotransaction.

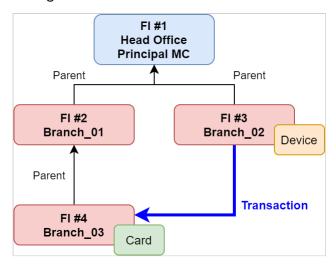


A part of fields are hidden and are not shown in the "Macrotransactions – All" form (Date, Category, Class, S Fee, T Fee etc.).



### 4.4.4 Example 4. FI No.4's card is used in FI No.3's ATM

This section describes an example of creating a macrotransaction when a Visa card belonging to financial institution FI No.4 (Branch\_03) is acquired on the device of financial institution FI No.3 (Branch\_02) – an example of an interbranch operation, where two contracts of unrelated FIs interact through transit FIs.



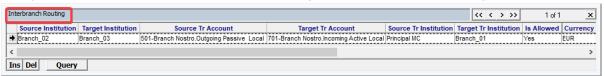
In this way, FI No.3 is a source, and FI No.4 is a target.

As a result of processing the financial document, four macrotransactions (Macro) are generated:

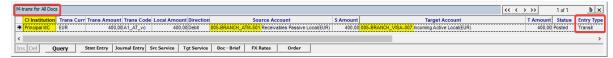
1. Macro 1 has the "Source" type, belongs to FI No.3 and occurs between the device contract and the "501-Branch VISA" contract, which is a subcontract of the "501-Branch Nostro" contract:



A target contract account is determined according to the "Interbranch Routing" table:



2. Macro 2 has the "Transit" type, belongs to FI No.1 and occurs between the "005-Branch ATM-501" contract, which is a subcontract of "005-Branch Nostro-501", and the "005-BRANCH\_VISA-007" contract, which is a subcontract of "005-Branch Nostro-007":



Rules for generating the macrotransaction are the same as those for generating "Transit" type macrotransactions in the section "Example 2. A child FI's card is used at an ATM of another child FI".

3. Macro 3 has the "Transit" type, belongs to FI No.2 and occurs between the "007-Branch ATM" contract, which is a subcontract of "007-Branch Nostro", and the "007-BRANCH\_VISA-701"



contract, which is a subcontract of "007-Branch Nostro-701":



4. Macro 4 has the "Target" type, belongs to FI No.4 and occurs between the card contract and the "701-Branch ATM" contract, which is a subcontract of the "701-Branch Nostro" contract:



A source contract account is determined in the same way as the target contract in the first macrotransaction.



A part of fields are hidden and are not shown in the "Macrotransactions – All" form (Date, Category, Class, S Fee, T Fee etc.).

# 4.5 Routing on-us transactions through a payment system

In a number of cases, on-us transactions made in one financial institution (transaction between a card and a device that belong to the same financial institution) must be routed through a payment system.

To do so, the following settings should be made:

- 1. Set the tag CHECK\_IBR=Y; for the appropriate card contract subtype.
- Configure a record in the "Interbranch Routing" table (Full → Configuration Setup → Routing →
  Interbranch Routing):



- The financial institution to which the card and device belong are specified in the Source Institution and Target Institution fields.
- "No" is specified in the *Is Allowed* field.
- In the For Online field, it is possible to specify which transaction messages must be routed through the payment system (authorizations and financial or only financial).

Routing through a payment system is performed according to standard Way4 Interchange routing rules; see the document "Interchange Routing".

# 4.6 Charging fees in favor of the parent FI

When an operation is made between a parent FI's device and a child FI's card, fees are charged to an account of the "XXX-BRANCH\_ISS\_FEES" (Branch Issuing Fees) contract of the child FI.

Correspondingly, when an operation is made between a parent FI's card and a child FI's device, fees are



charged to an account of the "XXX-BRANCH\_ACQ\_FEES" (Branch Acquiring Fees) contract of the child FI.

If it is necessary to transfer fees to an account of the "XXX-BRANCH\_ACQ\_FEES-NNN" contract of the parent FI, the system must be configured by one of two ways:

- The Financial Institution attribute that specifies a parent FI must be assigned to an account template that is used for fees (Full → Configuration Setup → Accounting Setup → Bank Account Schemes). In this way, macrotransaction between the child FI's device contract or card and the same FI's "Branch Nostro" contract will belong to the parent FI. The GL entry will be registered for the account whose number is specified in the HeadOffice GL# field. In this way, the fee will only be reflected in the parent FI's accounts.
- A standing payment order with the "Interbranch" value in the Date Event field is set up in the fee
  account of the child FI (e.g. the "Client Fees Passive" account of the "XXX-CLIENT\_FEE" contract.
  It transfers charged fees to the parent FI. In this case, fees will be reflected in the child FI's
  accounts, and the sum total of all fee entries will be reflected in the accounts of the parent FI. For
  standing payment order parameters, see the section "Configuring Standing Payment Orders" of
  the document "Standing Payment Orders".

# 4.7 Deferred settlement with branches or affiliated banks

Settlement with bank branches or affiliated banks is usually deferred when making reimbursements of transactions performed in a bank branch's or affiliated bank's devices.

For example, a parent financial institution's card is acquired on the device of a branch, that in a child financial institution.

To settle with branch (affiliated banks) with a delay corresponding to the "Value Days" value, it is necessary to add a transit account template similar to the "Receivable" account template of acquiring contracts' Account Schemes to the "Interbranch Loro/Nostro" Scheme of the affiliated banks.

The following configurations must be set up for the transit account template:

- The account must belong to the parent institution (*Fin Institution* field of the corresponding Account Scheme template must contain the parent FI).
- The "Value Date Due" value must be specified in the Due Type field.
- The branch's or affiliated bank's correspondent account must be specified in the *Due Template* field.

Values of the *Value Days* field must be specified in the corresponding services of the Service Package of the affiliated bank's contract.

When an interbranch operation is made, all necessary macrotransactions will be created at once, including a macrotransaction between the device contract registered in the branch and the "Branch Nostro" contract of the branch. When an interbranch operation document is posted, the following macrotransactions will be generated:



- A macrotransaction between the card contract's account of the parent FI and a transit account of the child FI's "Branch Nostro" contract.
- A macrotransaction transferring funds from the transit account to the affiliated bank's correspondent account. After generation, this macrotransaction will have the "Waiting" status and will be posted after an actual interbranch financial transaction takes place in the number of days specified in the *Value Days* field of the corresponding Service.

This scheme may be applied for deferred settlement in the event that a card and a device are registered in different branches or affiliated banks.



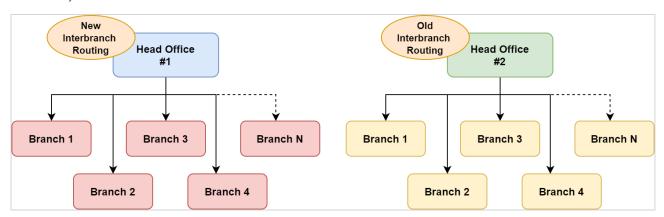
# 5 Routing between several head financial institutions

The system supports configurations with several independent head financial institutions where every head financial institution:

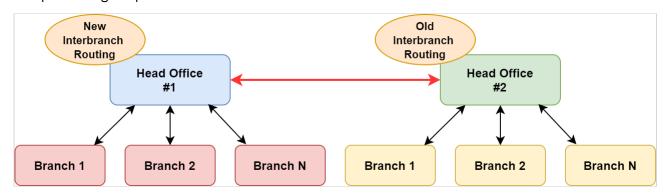
- Can have its own structure of branches (child financial institutions)
- Use standard interbranch routing or "old" mode for recording interbranch operations where there are no separate bank contracts for each branch in a head financial institution (for more information, see the section "Configuring interbranch routing").

Routing between head financial institutions is possible regardless of the interbranch routing type (standard or "old") used in head financial institutions.

Sample configuration with two head financial institutions, one using standard interbranch routing and the other, "old" mode.



Sample routing of operations:



When routing is set up between separate head financial institutions, settlement between their branches is performed through the head financial institutions.

Registration of a new head financial institution is described in the section "Adding financial institutions".

For system configurations, see the section "Configuring routing between several head financial institutions".





To use the standard interbranch routing functionality, the mode for recording entries in GL accounts of a head financial institution's bank contracts must be enabled (for more information, see the section "Activating standard interbranch routing").

# 5.1 Configuring routing between several head financial institutions

To use the functionality, set up:

- · Bank contract's Account Scheme.
- Routing when a new head financial institution is added.
- Routing for branches of a new financial institution.

For more information about interbranch routing, also see the section "Interbranch operations".

### 5.1.1 Bank contract's Account Scheme

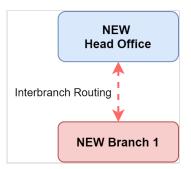
To register a "Branch Nostro NEW" bank contract (see the section "Configuring bank contracts to record interbranch operations"), an "XXX-Interbranch Loro/Nostro HO" Account Scheme must be set up in the system (where "XXX" is the code of the new head financial institution).

If this Account Scheme is absent in one of financial institutions, add it according to the recommendations from the section "Configuring an Account Scheme".

## 5.1.2 Routing when a new head financial institution is added

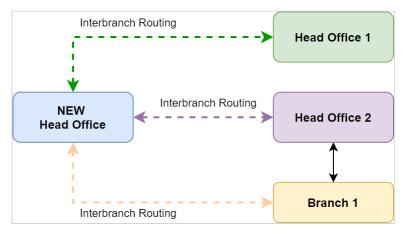
To set up rules for processing operations, set up routing between:

• New financial institution (that is being registered) and its branches:





 New financial institution (that is being registered) and head financial institutions and their branches registered earlier:



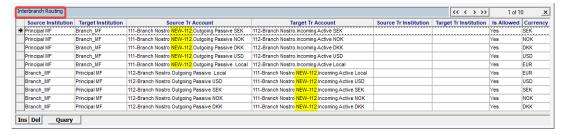
Setup depends on used configuration. If settlement will be performed:

- Between the new financial institution and all head financial institutions registered earlier, do the following for the new head financial institution:
  - In the "Financial Institution" form, select the new head financial institution and the click the [Interbranch] button (Full → Configuration Setup → Main Tables → Financial Institutions).
  - In the form the opens, click the [Redefine] button and select "Set Default" from the context menu.

As a result of the procedure, records for interbranch routing between the new financial institution and its branch and the new financial institution and all financial institutions registered earlier (including their branches) will be automatically added to the "Interbranch Routing" table (Full → Configuration Setup → Routing → Interbranch Routing).

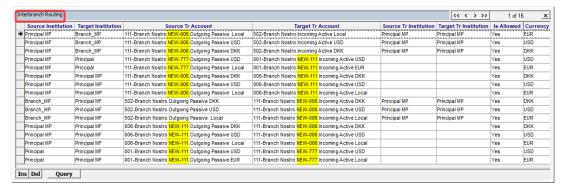
Sample configuration of routing between:

• A new head financial institution (Principal\_MF) and its branch (Branch\_MF):





• A new head financial institution (Principal\_MF) and all head financial institutions registered earlier and their branches (Principal, Principal\_MP, Branch\_MP):





The fields of the "Interbranch Routing" form are described in the section "Interbranch Routing" table.

By default, the same bank contract is used to record interbranch settlements between different head financial institutions (see the section "Configuring bank contracts to record interbranch operations"). If different bank contracts must be used, set up accounts (Source Tr Account and Target Tr Account) manually in the "Interbranch Routing" form. For example, when settlements between head financial institution #1 and head financial institution #2 must be recorded in bank contract #1 and settlements between head financial institution #1 and head financial institution #3, in bank contract #2.



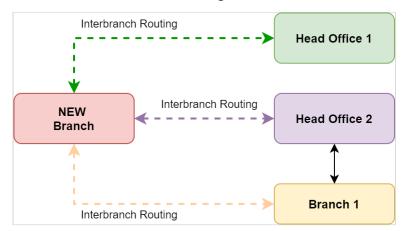
The procedure to configure Interbranch routing for a separate financial institution deletes all configurations made for this financial institution manually in the "Interbranch Routing" form and generates configurations based on standard rules.

Only between one (or several) head financial institutions registered earlier and the new head
financial institution, manually register records for routing between the new head financial
institution and the necessary head financial institutions and their branches in the "Interbranch
Routing" table (Full → Configuration Setup → Routing → Interbranch Routing). Alternatively,
perform the previous step and delete all unnecessary records.



## 5.1.3 Routing for branches of a new financial institution

When a new financial institution has branches, it is necessary to set up routing between the branches and head financial institutions registered earlier and their branches.



To set up interbranch routing between branches of the head financial institution and head financial institution registered earlier and their branches, execute the "Set Default" procedure (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Main Tables  $\rightarrow$  Financial Institutions  $\rightarrow$  [Interbranch]  $\rightarrow$  [Redefine]) for every branch of the head financial institution. For more information, see item 2 in the section "Routing when a new head financial institution is added".



Before starting the "Set Default" procedures, make sure that:

- The NEW\_INTERBRANCH\_ROUTING = Y parameter is set (specifically for the new financial institution or globally; for more information, see the section "Activating standard interbranch routing").
- Interbranch routing is set up between the new financial institution and the one registered earlier (for more information, see the section "Routing when a new head financial institution is added").

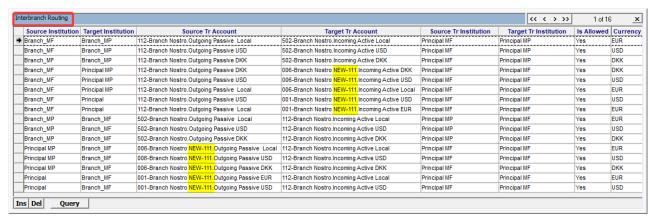
Depending on the value of the NEW\_INTERBRANCH\_ROUTING global parameter or tag specified for the new financial institution, records with bank contract accounts generated in either old or new (standard) way will be registered in the "Interbranch Routing" table (for more information, see the sections "Configuring the "Interbranch Routing" table" and "Configuring bank contracts to record interbranch operations").



In configurations with several independent head financial institutions, the procedure to create bank contracts for a head financial institution's branches (Set Default) can only be used when the hierarchy of the head financial institution has only one "Clearing In" level of child financial institutions (that is, when the General Ledger of the new head financial institution only accounts operations of branches one level under). See the description of the  $Clearing\ In$  field of the "Financial Institutions" form (Full  $\rightarrow$  Configuration Setup  $\rightarrow$  Main Tables  $\rightarrow$  Financial Institutions) in the section "Basic FI parameters".

Interbranch routing between separate head financial institution with more than one level of child (subordinate) financial institutions is set up made manually. For further consultation, contact OpenWay Customer Support.

Sample configuration of routing between a branch (Branch\_MF) of a new head financial institution (Principal\_MF) and all head financial institutions registered earlier and their branches (Principal, Principal\_MP, Branch\_MP):



The fields of the "Interbranch Routing" form are described in the section "Interbranch Routing" table".