Financial Institutions

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Introduction

This document is intended for bank or processing centre employees responsible for WAY4 setup and contains information on creating and configuring new financial institutions in the system, setting up Interbranch routing rules, and using time zone mode.

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

- Products
- Interest Accrual
- WAY4™ Global Parameters
- Issuing Module
- Documents
- Daily Procedures
- Cardholder Statements
- WAY4 Accounting

The following conventions are used throughout this document:

- Field labels in screen forms are typed in *italics*.
- Button labels used in screen forms are placed in square brackets, such as [Approve].
- Menu selection sequences are shown with the use of arrows, such as Configuration Setup → Contract Types.
- Key combinations are shown in angular brackets, such as <Ctrl>+<F3>.
- The  sign warns that there is an increased chance of making an incorrect action.
- Messages marked with the  sign contain information about important features, additional facilities, or the optimal use of certain functions of the system.

Chapter 1. Terms and Definitions

A financial institution (FI) in WAY4 is a credit institution or 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, Accounting Schemes, Events, macrotransactions, FX rates, etc. all belong to a specific financial institution.

Many procedures, such as document processing, daily closing, data exchange with the bank system and with the card 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).

Rules for performing financial transactions between various financial institutions are regulated in WAY4 by means of Interbranch Routing.

- The hierarchy "head office – bank branch" can have various options for use:

1. 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.
2. This option also implies 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.
3. 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.

- 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 can be represented by two subordinate financial institutions: card Products and contracts are grouped in one, and acquiring Products and contracts in the other. This approach can be used, for example, to separate accounting for branch transactions, when accounting for card operations is maintained in the head office, and

accounting for acquiring operations in the branch itself (see Fig. 1 and the description of the *Clearing In* field).

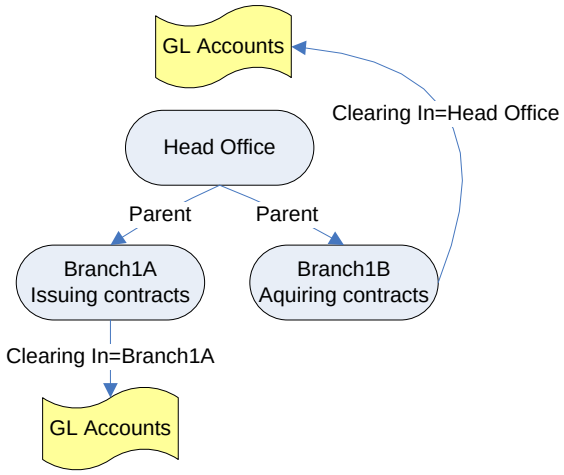


Fig. 1. The hierarchy "head office – group of branch objects"

- The hierarchy "sponsor bank – affiliated bank". The sponsor bank interacts with payment systems. In this case, the following options are possible:
  - The affiliated bank has its own transaction 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 (corresponding to the affiliated bank) contains only routing bank contracts. Interaction between the sponsor bank and the affiliated bank is additionally set up by configuring 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 (according to the second option).

Chapter 2. Financial Institutions in WAY4

This section describes working with financial institutions in WAY4.

Adding Financial Institutions

Adding a financial institution consists of the following steps:

- Creating a new financial institution record
- Copying configurations
- Verifying FI parameters

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 (see Fig. 2).

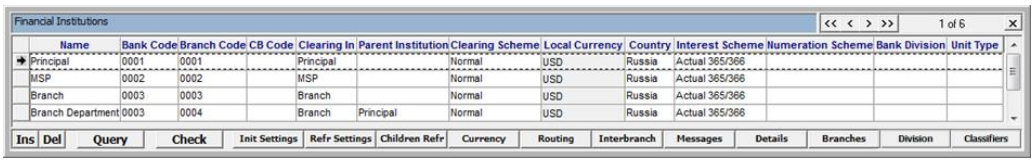


Fig. 2. Form for registering and configuring financial institutions

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*). 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] – used to verify FI parameters (see "Checking FI Parameters").

[Init Settings] – used to copy basic configurations from another financial institution (see "Copying Basic FI Configurations").

[Refr Settings] – used to partially copy configurations from another financial institution (see "Partial Copying of Configurations").

[Children Refr] – used to copy the parameters of the parent FI to all subordinate FIs (see the section "Partial Copying of Configurations for a Specific FI").

[Currency] – used to change the local currency (see "Changing the Local Currency").

[Routing] – used to change routing configurations (see "Changing Interchange Routing Configurations").

[Interbranch] – used to set up Interbranch routing (see "Configuring Interbranch Routing").

[Messages] – used to access the form containing system messages generated as a result of executing the previous operation (e.g. results of FI check – see "Checking FI Parameters").

[Details] – used to access the form with additional FI data (see "Additional FI Parameters").

Copying FI Configurations

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 in the "Financial Institutions" form (see Fig. 2 in section "Registering Financial Institutions") the new financial institution and click the [Init Settings] button. In the "Init Settings for <name of new FI>" dialogue box that opens (see Fig. 3), make sure that copying will take place for the new FI and click the [Setup] button.

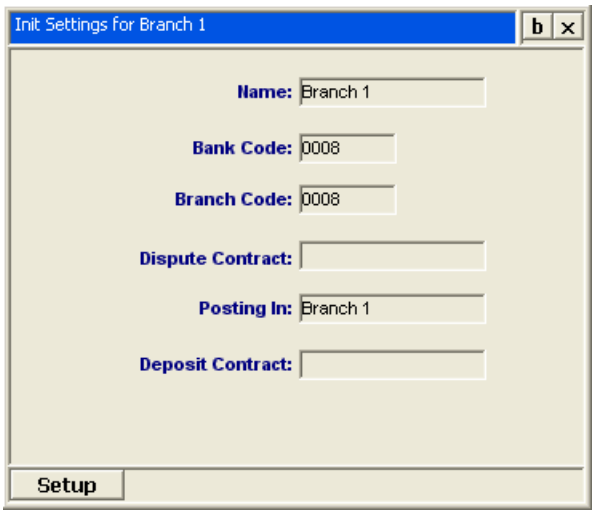


Fig. 3. Dialogue box for copying FI configurations

In the "Copy From" form that opens (see Fig. 4), select the FI from which configurations must be copied and click the [Proceed] button.

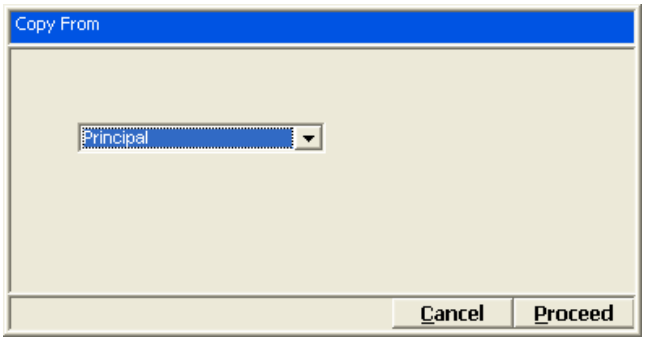


Fig. 4. Form for selecting the FI from which configurations must be copied

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

- Client types
- Service groups
- Contract subtypes
- Event types
- Behaviour groups and behaviour types
- Accounting 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 section "Changing FI Parameters". Local currency values are changed in special mode – see section "Changing the Local Currency".

After copying, Service Packages and Accounting Schemes of the new FI contain a link to the standard setup (fields *Parent Pack* and *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 Accounting Scheme or Service Package change, the parameters are synchronised 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 "Partial Copying of Configurations"). 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 Accounting Schemes and Service Packages: clear the *Parent Pack* field of a child Accounting Scheme or Service Package.
  - For Products, inheritance of their components can be switched off; for this, specify the "NO_COPY;" tag in the *Custom Data* field of a child Product. When copying selected parameters of a template financial institution, makes it possible for the Product of a child financial institution to not copy the Accounting Scheme, Service Package, Report Type, etc.
  - All copied objects can be unlinked from their standard object by changing the record code. However, new copies of standard objects will be created during partial copying in this case.

The way partial FI update is performed depends on how inheritance of changes is switched off (see "Partial Copying of Configurations").

When copying a financial institution's settings, pay attention to 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, Accounting Schemes and Service Packages (with consideration of the rules set using the *Numeration Scheme* parameter). 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.

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.

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 in FI 1. To copy the changes to FI 2 without changing its own configurations, the partial copying procedure is used.

For this, 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 (see Fig. 5), 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.

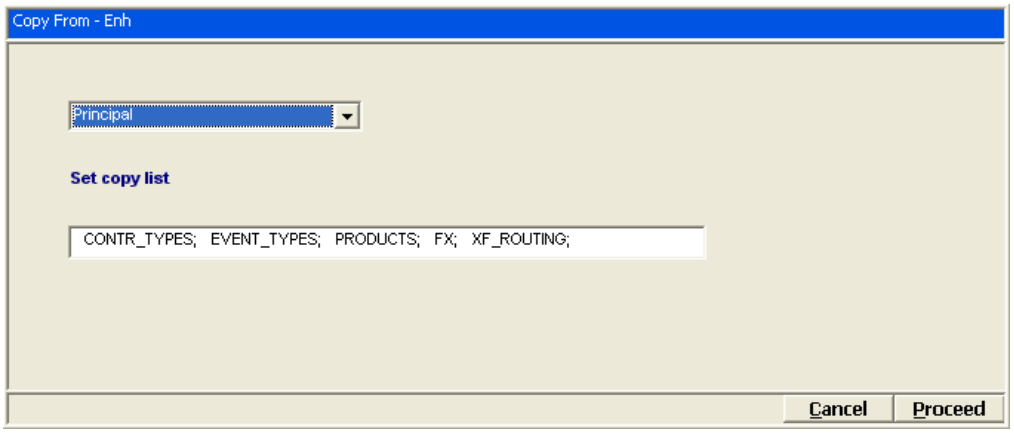


Fig. 5. Form for selecting the FI from which configurations must be partially copied

After partial copying:

- Copies will be created for all selected objects of the standard FI that have no copies in the updated FI.
- Found object copies will be synchronised with the standard objects (except for Accounting Schemes and Service Packages, which are synchronised when objects are approved) if inheritance of parameters is not switched off. For information on switching off inheritance, see section "Copying Basic FI Configurations".

The system searches for copies as follows:

- Searches for copies by record code (the codes of copied records are the same as the codes of standard records) and checks their parameters:
  - For Service Packages and Accounting Schemes:
    - If the *Parent* field is filled in, the copy is recognised, and a new copy of the standard object is not created.
    - If the *Parent* field is left blank, the copy is not linked to the standard object. A new copy of the corresponding Service Package or Accounting 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 (Accounting 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.

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 (see Fig. 6).

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.

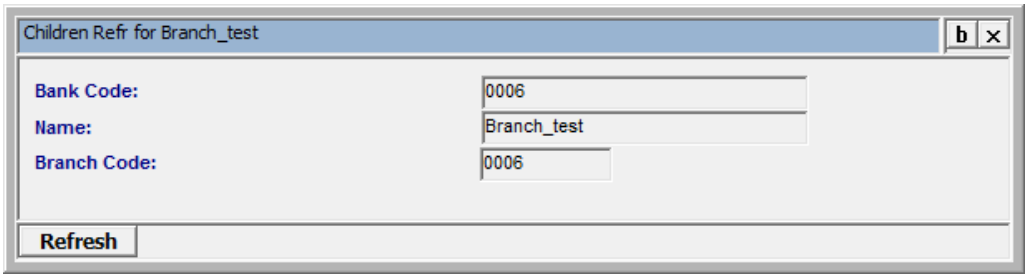


Fig. 6. Form to confirm copying from the parent financial institution

Clicking the [Refresh] button opens a form to select objects for copying, see Fig. 7.

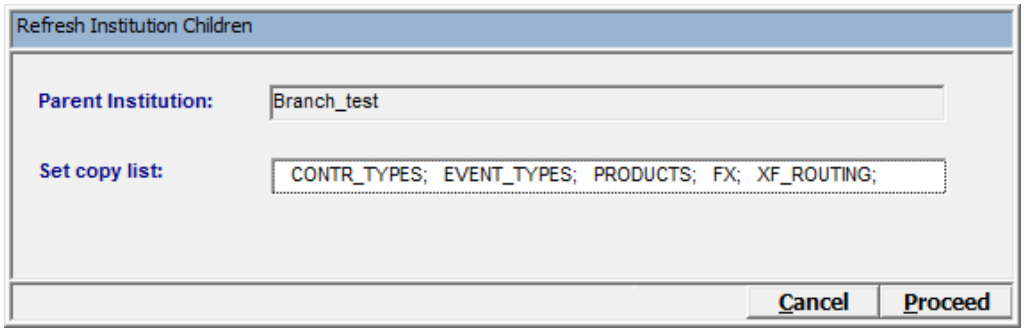


Fig. 7. Form for selecting objects for copying

If necessary, in this form delete objects from the list of objects to be copied in the *Select copy list* field and click the [Proceed] button.

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.

Activating Basic FI Properties

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

1. Execute 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 be displayed on the screen (see Fig. 8).

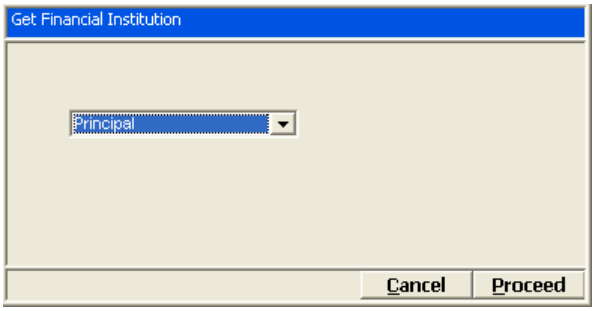


Fig. 8. Form for selecting a FI

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 (see Fig. 9), specify the date starting with which the configurations of the new FI must be active and click the [Proceed] button.

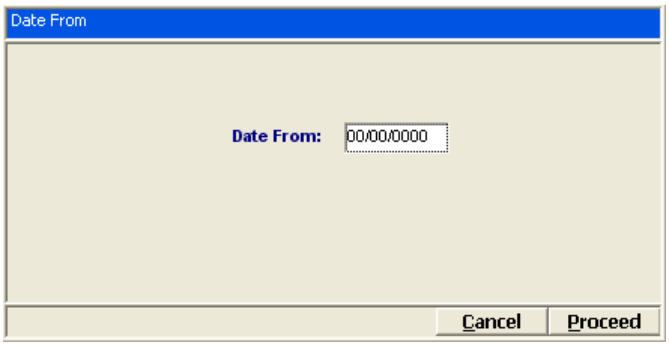


Fig. 9. Form for setting the date of activation of the new FI

Checking FI Parameters

After setup, it is necessary to check the parameters of the new FI. For this, select the new institution in the "Financial Institutions" form (see Fig. 2) and click the [Check] button.

As a result, the "Specify Check Parameters" form will be displayed on the screen (see Fig. 10). It is used to specify check parameters.

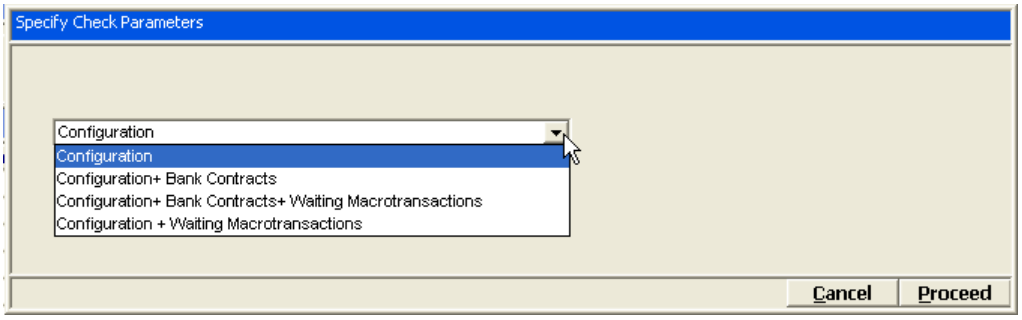


Fig. 10. Form for specifying FI configuration check parameters

The following options are available:

- *Configuration* – FI parameters are checked (see a list of checked objects in section "Copying Basic FI Configurations"); this is a 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 (see Fig. 11), containing messages generated by the system during FI check.

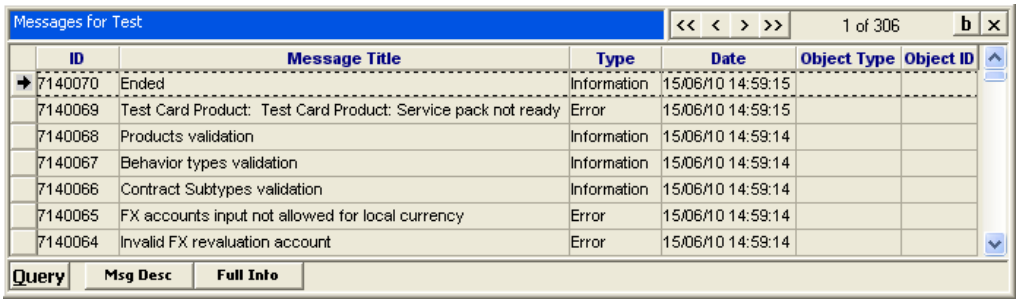


Fig. 11. System messages generated as a result of FI configuration check

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 section "Start of Day Procedure" in the Daily Procedures User Manual), the new financial institution is ready.

Changing Basic FI Configurations

Basic FI configurations are changed after copying standard FI configurations.

Changing FI Parameters

Basic FI Parameters

To modify FI parameters, select "Full → Configuration Setup → Main Tables → Financial Institutions" from the user menu and edit the parameters of the necessary FI in the "Financial Institutions" form that opens (see Fig. 12).

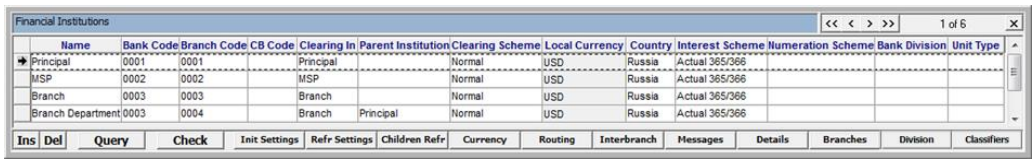


Fig. 12. Form for registering and configuring FIs

The "Financial Institutions" form contains the following fields:

- *Name* – FI name
- *Bank Code* – auxiliary internal FI identifier up to 6 characters long (does not need to be unique). This identifier may be used to name exported files (e.g. such files are generated to issue cards or to exchange data with the banking system).

  This identifier is also used to set up parameters of online operation (see "Changing Other FI Configurations").

  The *Bank Code* identifier may also be used for specific redefined procedures or custom packages/pipes.
- *Branch Code* – unique internal FI identifier up to 6 characters long; this identifier is used to number bank contracts, Accounting Schemes and Service Packages (also see the description of the *Numeration Scheme* parameter. This ID may be used to name exported files (e.g. such files are generated to issue cards). The identifier may also be used for specific redefined 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 transactions 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 doesn't 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 transactions between financial institutions

(see "Rules for Creating Macrotransactions for Interbranch Transactions"). 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 section "Changing the Local Currency").
- *Country* –country of the FI
- *Interest Scheme* – this parameter is used to calculate a daily interest rate using an annual interest rate. For details on daily rate calculation, see the Interest Accrual Administrator Manual. 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" 0 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 (see the WAY4™ Global Parameters and the description of the USE_MONTH_WEIGHT parameter in 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.

For more information, see the description of the USE_MONTH_WEIGHT parameter in the sections "Number of Days in a Year" and "Determining a Daily Interest Rate" of the document "Interest Accrual".

- *Numeration Scheme* – determines how a prefix for the names of Service Packages and Accounting Schemes as well as bank contract numbers is generated based on the financial institution 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.

  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 a list configured in the form "Full → Configuration Setup → Main Tables → Unit Types", see the section ""Unit Types" Form".

- The [Branches] button is used to view bank branches (see the section ""Branches" form").

- The [Division] button is used to view additional information about an institution (see the section ""Bank Divisions" Form").

Additional FI Parameters

To access additional information about a FI, use the "Details for <name of FI>" form (see Fig. 13). It is opened by clicking the [Details] button in the "Financial Institutions" form (see Fig. 12 in section "Basic FI Parameters").

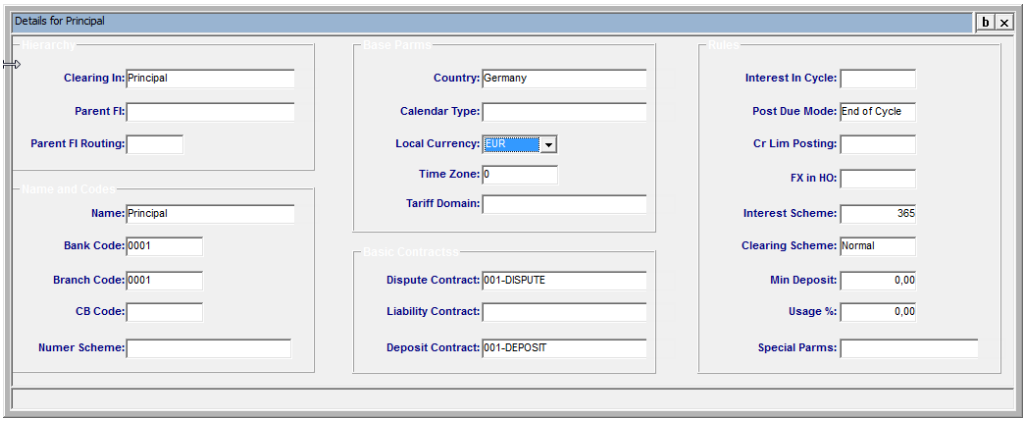


Fig. 13. Form containing additional FI information

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" in 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. For more details on time zone mode, see the document "Time Zones".

  An additional agreement with the WAY4 vendor is required to use time zone mode.
- *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 includes the tariff management module.

  The Advanced Tariff Management module is not included in the WAY4 basic configuration and is delivered according to an additional agreement with the WAY4 vendor.
- Fields *Dispute Contract, Liability Contract, Deposit Contract, Min Deposit,* and *Usage %* are used to set up bank contracts of the FI. See a description of the fields in section "Configuring Institution Specifications".
- *Interest in Cycle* –determines the billing cycle in which an interest accrual entry is registered and may take on 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 WAY4 Global Parameters Administrator Manual).
  - "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 WAY4 Global Parameters Administrator Manual).
  - "End of Cycle" – waiting macrotransactions with due normalisation types "End Cycle Due" or "Quarter" (see the section "Ageing" of the "WAY4™ Accounting Schemes" document) 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 authorisation document is generated in the system. Credit limits are reflected in contract accounts by generating for this authorisation 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 global parameter CREDIT_LIMIT_POSTING (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 global parameter CREDIT_LIMIT_POSTING 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 Accounting Scheme's *Cr Lim Posting* field.
- If the global parameter CREDIT_LIMIT_POSTING 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 clearing centre (head office) and other FIs may be made in a financial institution's contract currency that is different from the settlement currency of a financial document. Currency exchange is in this case performed in the clearing centre, 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 a 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.

  The following occurs when processing such a transaction:

  - 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 influenced by the following parameters: the global parameter CHANGE_CURRENCY and the settings it is accompanied by (see the section CHANGE_CURRENCY in the document "WAY4™ Global Parameters"), and the "USE_TRANS_AMOUNT" tag (see the section "Tags in the *Special Parms* Field of a Financial Institution").

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, see Fig. 12 (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 in Fig. 12, conversion is made in FI 3).

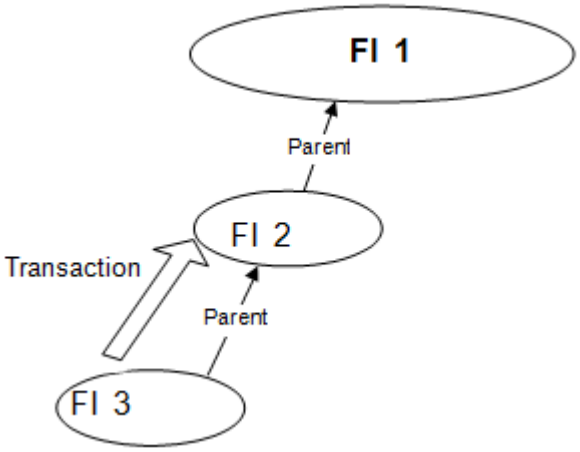


Fig. 14. Configuration disabling the parameter FX in HO

- *Special Parms* – this field is used for additional configuration of the financial institution using the following tags. For more information, see the section "Tags in the *Special Parms* Field of a Financial Institution".

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 authorisation request.

These settings do not work for secondary transactions. I.e., these settings do not influence, for example, calculation of the amounts of secondary financial documents in a dispute cycle (Chargeback, Representment).

To enable this mode, do as follows:

- Set the global parameter CHANGE_CURRENCY.

  The value of the global parameter is the code of the account type used to record the difference between Transaction Amount and Settlement Amount when these amounts are in the same currency.

  The account code specified as the CHANGE_CURRENCY parameter value is used to search for an account only when Transaction Amount and Settlement Amount differ but are in the same currency. To determine the debited/blocked amount in other cases (see the section "Generating Macrotransactions") this value of the CHANGE_CURRENCY global parameter will be considered exclusively as enabling the mode for checking the USE_TRANS_AMOUNT tag.

- Specify the value of the USE_TRANS_AMOUNT=<value>; tag. Possible tag values:
  - **"F"** – the transaction amount is blocked and debited from the contract if the card has an account in the transaction currency.
  - **"Y"** – the transaction amount is always blocked and debited from the contract.
  - If the tag is **not set** or has the **"N"** value, the settlement amount will be debited from the contract.

To use the "USE_TRANS_AMOUNT=<value>;" tag, special accounts must be configured under the bank FX account (see the section "Configuring Accounts").

The USE_TRANS_AMOUNT=<value>; tag can be redefined on the Product or Service Package level (a tag on the Product level has a higher priority than a tag on the Service Package level).

Configuring Accounts

When the USE_TRANS_AMOUNT=<value>; tag is activated, special accounts must be configured under the bank FX account:

- Create an asset/liability pair of accounts and a standard account:
  - Configure account types (see Fig. 15).

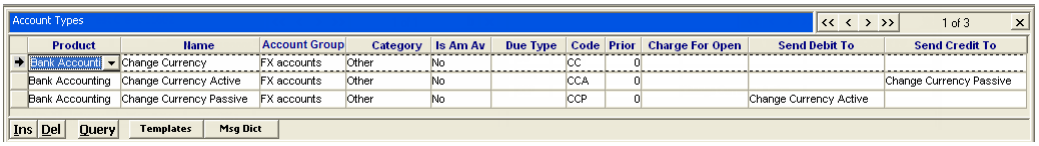


Fig. 15. Configuring account types

  - Create account templates in the Account Scheme of the bank FX contract for all financial institution currencies (see Fig. 16).

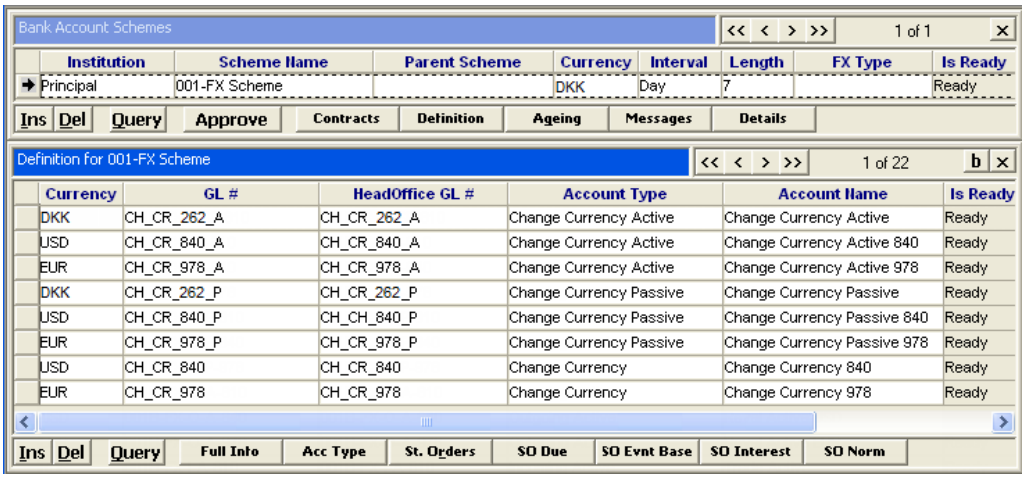


Fig. 16. Configuring Account Schemes

- Configure an FX type:
  - Register the FX type with the predefined code _AD_HOC_FX with the marker "Is Internal"="Yes" (Full → Configuration Setup → Accounting Setup → FX Types), see Fig. 17.

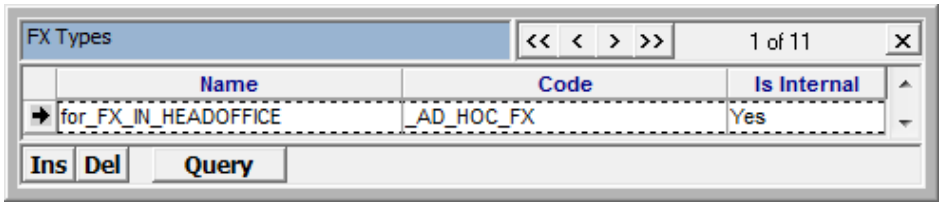


Fig. 17. Registering the FX type with the predefined code _AD_HOC_FX

- Configure an FX type for the FX scheme (Full → Configuration Setup → Accounting Setup → FX Scheme) specifying the accounts configured earlier (*Trade Account*, *Reval Account* fields) and the FX type with the predefined code _AD_HOC_FX, see Fig. 18.

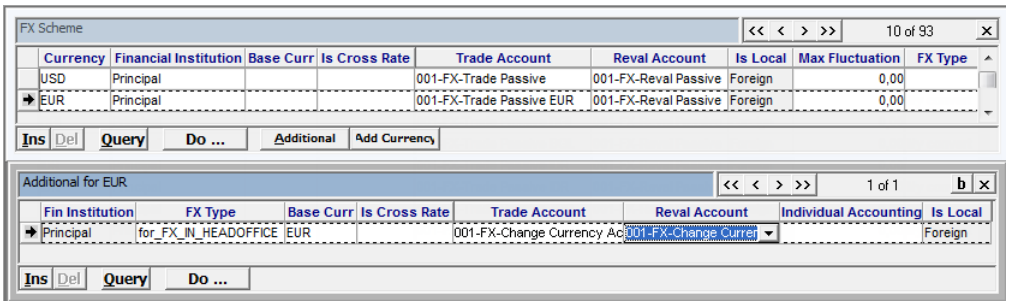


Fig. 18. Configuring an FX type for an FX scheme

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 (the standard account configured above).

Note that when adding an FX type, the [Do] → [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 should be loaded for the main FX scheme for which the FX type was set up (Reset FX Rates, see the section "Entering Local to Foreign Currency Rates" of the document "Currency Conversion").

Generating Macrotransactions

Generation of macrotransactions for different values of the USE_TRANS_AMOUNT tag:

- If the tag is **not set** or set to the **"N" value**, the settlement amount will be debited from the contract. If the settlement currency differs from the contract currency, the settlement amount will be converted in standard mode (using standard FX accounts) into an amount expressed in the contract currency.
- **When the "Y" value is set**, the transaction amount is always blocked and debited from the contract. Examples:
  - Example 1. A transaction using 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

The entries generated are shown in Fig. 19.

The following notation is used in the figures of this section:

- "CH_CR_A", "CH_CR_P" – specially configured asset/liability account pair (see the section "Configuring Accounts").
- "Reval Active", Reval Passive", "Trade Passive" "Trade Active" – standard bank contract FX accounts.
- CH_CR – specially configured standard account (see the section "Configuring Accounts").

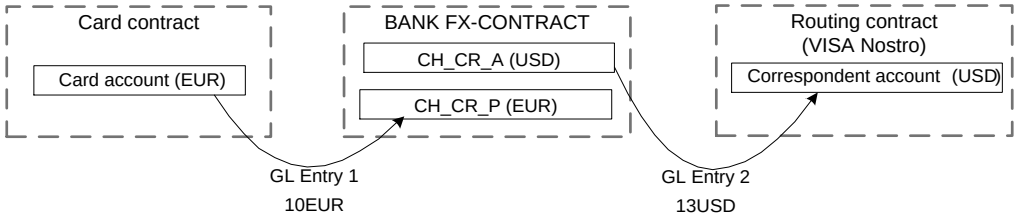


Fig. 19. Scheme of entries when using the USE_TRANS_AMOUNT="Y"; tag. Example 1.

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:

- An entry for the transaction amount from the document received from the payment system.
- An entry for the settlement amount from the document received from the payment system.

When processing this macrotransaction, standard conversion using FX rates set in WAY4 does not take place.

- Example 2. A transaction using 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.

The entries generated are shown in Fig. 20.

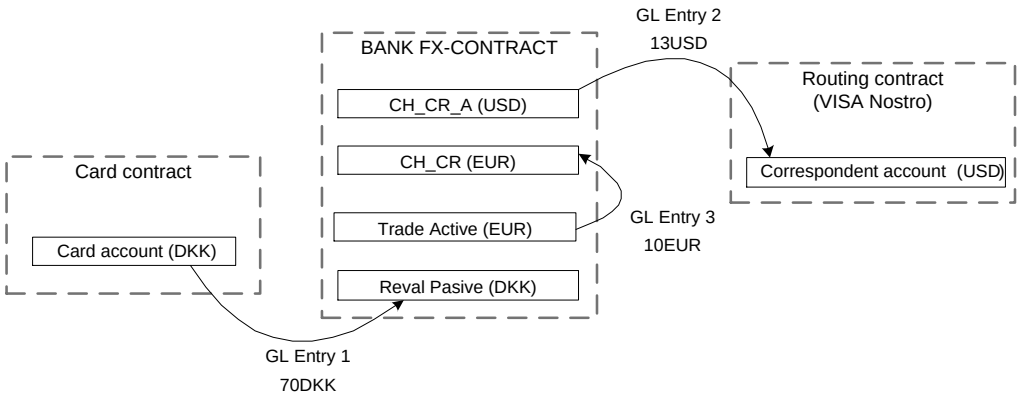


Fig. 20. Scheme of entries when using the USE_TRANS_AMOUNT="Y"; tag. Example 2.

One macrotransaction is created – a macrotransaction for direct transfer of funds from the card account to the payment system's Nostro contract account:

- ♦ Three entries are generated in the macrotransaction (see Fig. 20).

▪ Example 3.

- ♦ A transaction using a card on a "foreign" device was made with the following parameters:

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

The generated entries are shown in Fig. 21.

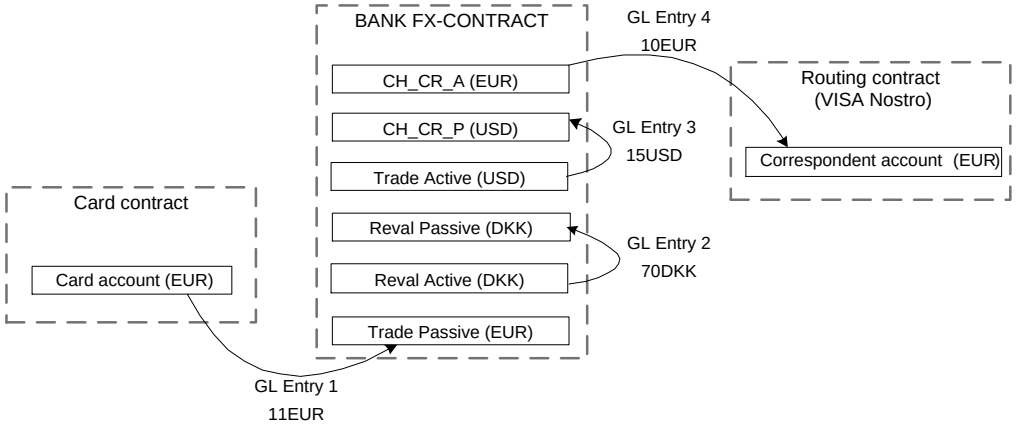


Fig. 21. Scheme of entries when using the tag USE_TRANS_AMOUNT="Y";. Example 3.

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 (see Fig. 21).

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

- When the "F" value is set, the transaction amount is blocked and debited if the card has an account in the transaction currency with the type specified in the Service describing this transaction. Macrotransactions will be generated in the same way as when the "USE_TRANS_AMOUNT;" 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; tag is set, the currency is the same, but the transaction amount and settlement amount differ.

  A situation when the currency is the same but the transaction amount and settlement amount differ may arise when a fee charged by the payment system to the issuing bank is included in the settlement amount.

  For entries to be correctly generated in this case:

  - Configure a special account under the bank routing contract.
  - Set the code of this account as the value of the CHANGE_CURRENCY global parameter.

  The code of the account set as the CHANGE_CURRENCY parameter value is used to search for an account in exceptional situations only. When executing the standard operations described above, this value will be considered as enabling checking mode of the USE_TRANS_AMOUNT tag.

  Example.

  - A transaction using a card on a "foreign" device is made with the following parameters

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

  The entries generated are shown in Fig. 22.

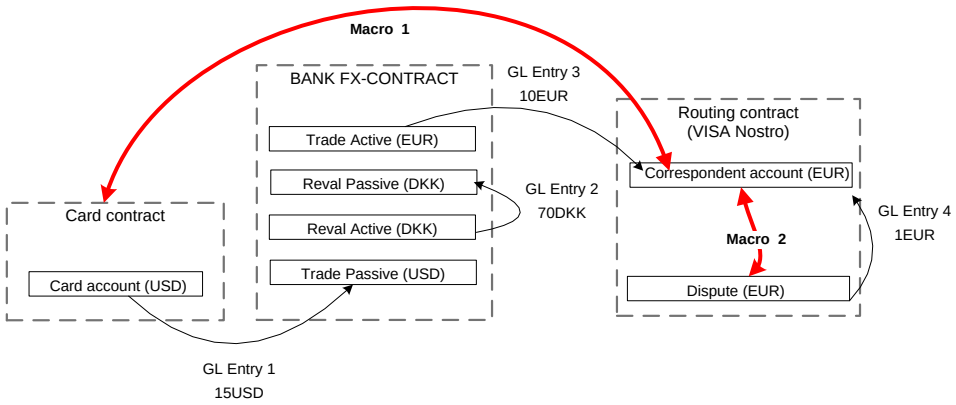


Fig. 22. Scheme of entries when using the tag USE_TRANS_AMOUNT="Y";. Example 4.

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. Entries in the macrotransaction are generated as shown in Fig. 22.

- Macrotransaction for the amount of the difference between the transaction amount and settlement amount (for the fee amount). This amount is debited from a specially configured account under the bank routing contract, set using the global parameter CHANGE_CURRENCY.

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 Accounting Schemes of the new FI before changing the local currency.

To change the currency, select the FI in the "Financial Institutions" form (see Fig. 12 in section "Basic FI Parameters") and click the [Currency] button. In the dialogue 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 Accounting 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).

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 do so, an error message will be displayed ("There has already been GL activity for this institution. Tranformation can not be done. Use clear balance procedure").

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 Interchange Routing Administrator Manual). To set up routing contracts in WAY4, use the "Interchange Routing

Contracts" form (Full → Configuration Setup → Routing → 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>" dialogue box, make sure that that routing parameters will be changed for the necessary FI and click the [Routing] button.

In the "Redefine Channel" dialog box (see Fig. 23), 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

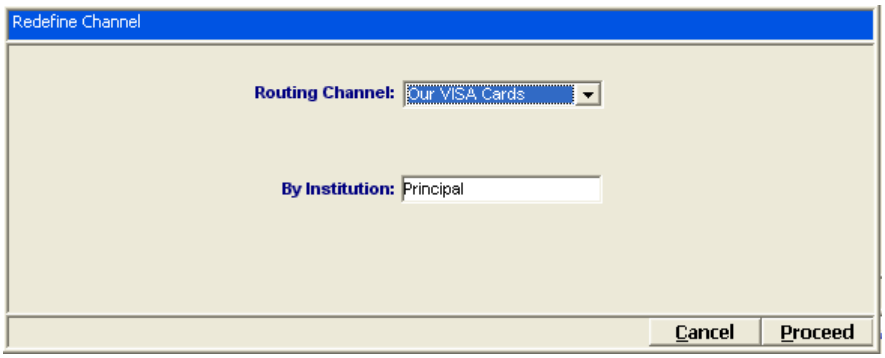


Fig. 23. Form for changing Interchange routing configurations

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.

Setting a Default Classifier for a Financial Institution

A default classifier and classifier value for a financial institution are set/changed using the "Set Default Classifier Value" command of the [Do] context menu in the "Financial Institutions" form (Full → Configuration Setup → Main Tables → Financial Institutions). This command opens the "Set Classifier Value" form, see Fig. 24.

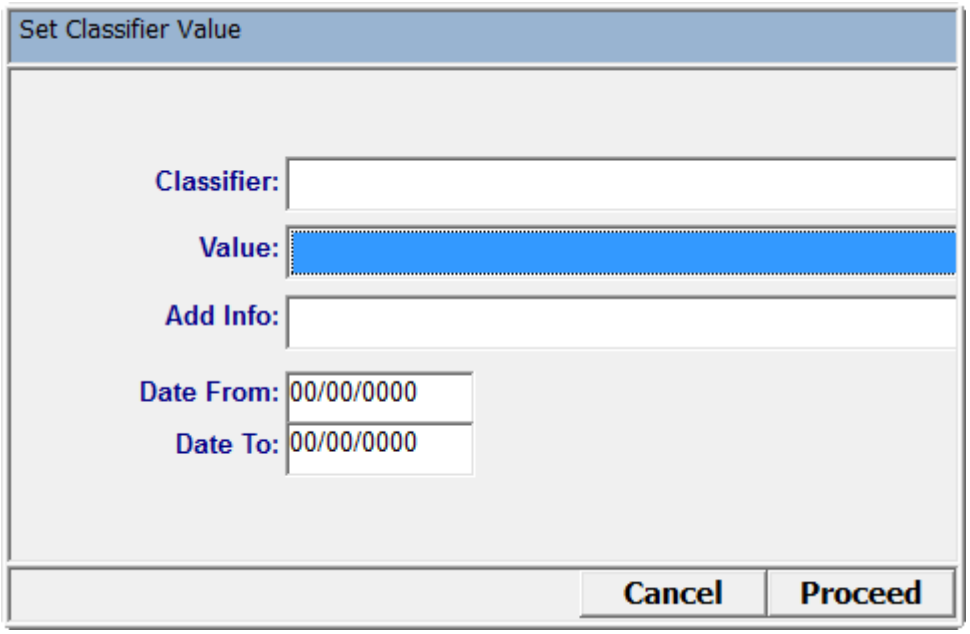


Fig. 24. Configuring a default value in a financial institution

In the "Set Classifier Value" form, fill in the following fields:

- *Classifier* – from the list, select a user classifier for a contract in which the DEFAULT_FROM=F_I; tag is set.
- *Value* – classifier value that will be used as the default value for the financial institution.
- *Add Info* – this field is reserved for forward compatibility.
- *Date From* and *Date To* – start/end date of the period during which this default value is active.

The default classifier that can be viewed in the "Classifiers for <financial institution name> form (see Fig. 25) that is opened by clicking on the [Classifiers] button in the "Financial Institutions" form (Full → Configuration Setup → Main Tables → Financial Institutions).

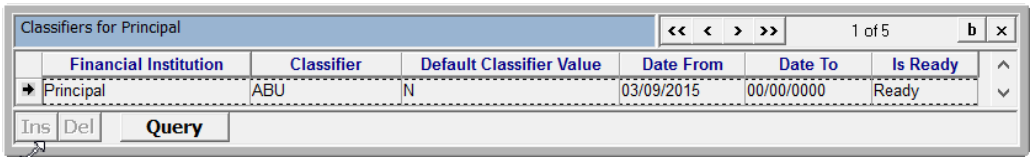


Fig. 25. Configuring a default value in a financial institution

If a default classifier had been set earlier for a financial institution, for the classifier's "old" record the *Date To* field will automatically be filled in (according to the specified period for the new default classifier) and when this date arrives, the record will be closed and the "Closed" status will be set in the *Is Ready* field.

When a default classifier is added or changed using the "Set Default Classifier Value" command for a financial institution, additional actions to activate this setting are not required.

Adding/changing the default classifier for a financial institution does not lead to any changes for specific contracts. For contracts for which the classifier is not

set, and if the DEFAULT_FROM=F_I tag is set for a classifier, the classifier value is taken from the financial institution's parameters, and if it is absent, the default value from the parameters of the classifier itself are used (value of the *Default Value* field in the "User Classifiers" form).

A default classifier can be set for a Product. See the section "Setting a Default Classifier for a Product" of the document "Products and Contract Subtypes". The value of a default classifier for a Product has a higher priority than that for a financial institution.

Changing Other FI Configurations

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

Card Issuance Parameters

To issue cards, it is necessary to specify a card number range. Card issuance 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 "Bank Production Parameters form. For more details on these configurations, see the Configuring WAY4™ System for Magnetic Stripe Card Issuing Administrator Manual.

Configuring Contract Types and Subtypes

It is necessary to specify issuing contract types and subtypes. For more details on configuring contract subtypes, see the "Entering Contract Subtype Data" section in the Products and Contract Subtypes Administrator Manual.

Configuring Online Interaction between Affiliated Banks and Payment Systems

The "Bank Acquiring Parameters" form (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters) is used to set up online interaction between affiliated banks and payment systems (see Fig. 26).

Fig. 26. Form for configuring interaction between affiliated banks and payment systems

Click the [Ins] button in the "Bank Acquiring Parameters" form and fill in the following fields:

- *Acq ID* – FI identifier; specify in this field the FI identifier used during online message exchange; the value in this field must be the same as the value in the financial institution's *Bank Code* field in the "Financial Institutions" table.
- In the *Institution* field, select a financial institution (sponsor bank) from the list of FIs registered in the system.
- *Is On Us* – drop-down list containing the following values:
  - "Yes" – the device belongs to a FI registered in WAY4

  - "No" – the device is connected to an external system with which a host-to-host interface is set up

- Fields *VISA AID*, *VISA FID*, *VISA ATM AID*, *SMS FID*, *SMS Settl ID*, *SMS PMC*, and *SMS AWK* are filled in according to the identifiers assigned to the FI by payment systems.

The *Euro AID* field is only used for backward compatibility.

Parameters of online interaction with other payment systems are set up using tags specified in the *Additional Parms* field of the form containing full information about parameters and opened by clicking the [Full Info] button.

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 information on working with the "Interchange Routing Contracts" form, see the Interchange Routing Administrator Manual).

Configuring Institution Specifications

The "Institution Specifications" form (Full → Configuration Setup → Accounting Setup → Institution Specifications, see Fig. 27) is used to specify the bank contracts whose accounts will be used to keep track of dispute amounts, closed contracts and other operations. This form can also be used to manage liabilities.

Institution Specifications << < > >> 8 of 10

Institution	Dispute Contract	Deposit Contract	Liability Contract	Min Deposit	Usage %	Last Scan
Principal	001-DISPUTE	001-DEPOSIT	001-BRANCH_NOSTRO	0,00	0,00	01/01/1995
Test	999-DISPUTE	999-DEPOSIT	999-DEPOSIT	0,00	0,00	00/00/0000
Campus	010-DISPUTE	010-DEPOSIT	010-BRANCH_NOSTRO	0,00	0,00	00/00/0000

Ins Del Query

Fig. 27. Table for configuring institution specifications

The "Institution Specifications" form contains the following 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. For example, this contract will be used as a target contract if a target could not be found in the database for an outgoing message from the payment system. This example and other examples involving dispute contracts are described in the Documents Administrator Manual.
- *Deposit Contract* – bank contract whose accounts are used for the following operations:
  - To transfer funds from issuing accounts when they are closed (see the Issuing Module User Manual)

  - To keep off-balance accounting of credit limits (see the WAY4™ Accounting Schemes Administrator Manual)

- *Liability Contract* – bank contract through which liability is managed. When an authorisation 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 (NNN-Branch Nostro, NNN-Deposit). It should be possible to set a minimum deposit amount on this contract (see a description of fields *Min Deposit* and *Usage %*).
- *Min Deposit* – minimum limit on the amount available that may be set for a contract acting as a liability contract. If it is found during processing of an authorisation 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 authorisation request that the amount available after the authorisation amount is withdrawn is less than this percentage of the current balance, the system will return a negative response code.

Configuring FI Interbranch Routing

It is necessary to set up Interbranch routing between the configured FI and the ones already registered in the system. For do this, use the "Interbranch Routing" form (Full → Configuration Setup → Routing → Interbranch Routing). For more details on the setup of Interbranch routing, see "Interbranch Routing".

Deleting Financial Institutions

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

- First, delete all objects belonging to this FI. For this, execute the special procedure "Clear Financial Institution". As a result of this procedure, all objects belonging to the FI (clients, contracts, Products, Accounting 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 "Housekeeping").

- In the "Financial Institutions" form (see Fig. 12 in 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.

Moving Clients and Contracts to Another FI

If it is necessary to move client records and contracts (contract tree) from one FI to another, proceed as follows:

- In the "Financial Institutions" form (Full → Configuration Setup → Main Tables → Financial Institutions) the values of the *Clearing In* field for both financial institutions must be the same. If the values do not correspond, set the same value in the *Clearing In* field.

  After moving the necessary data, set the *Clearing In* field to its original value.

  When the value of the *Clearing In* field is changed, it is necessary to restart the DB Manager application. Otherwise, the error "Invalid Clearing Institution" will occur when a contract is transferred.

- Select the "Full → DB Administrator Utilities → Special Contract Utilities → Change Contracts Institution" from the user menu. As a result, the "Change Contracts Institution" form will be displayed (see Fig. 28). It is used to select a contract.

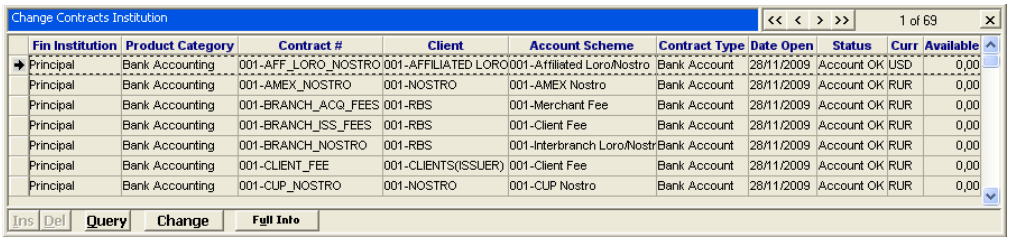


Fig. 28. Form for moving data to another FI

Note that in the "Change Contracts Institution" form, the 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 is 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 the new FI, the system performs the following actions:

- If the UNIQUENESS_CLIENT_REG_NUMBER parameter is set to "Y" (see the WAY4™ Global Parameters Administrator Manual), a new client record will not be created when the system finds a client with the same registration number in the target FI, and the contracts (contract tree) will be linked to the existing client.
- If the UNIQUENESS_CLIENT_NUMBER parameter is set to "Y" (see the WAY4™ Global Parameters Administrator Manual), a new client

record will not be created when the system finds a client with the same number in the target FI, and the contracts (contract tree) will be linked to the existing client.

  - In other cases, the system checks for a client record by short name, registration number, and client number.

- Restore the original value in the *Clearing In* field of the FI where it was changed (see step 1).

Note that the system does not automatically generate entries between the contract's old and new GL accounts if accounts were renumbered when moving a contract.

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, execute the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → FX Rates copy for FI". A form will open to select the date from which rates are being copied, the institution from which the rates are being copied and the target institution (see Fig. 29).

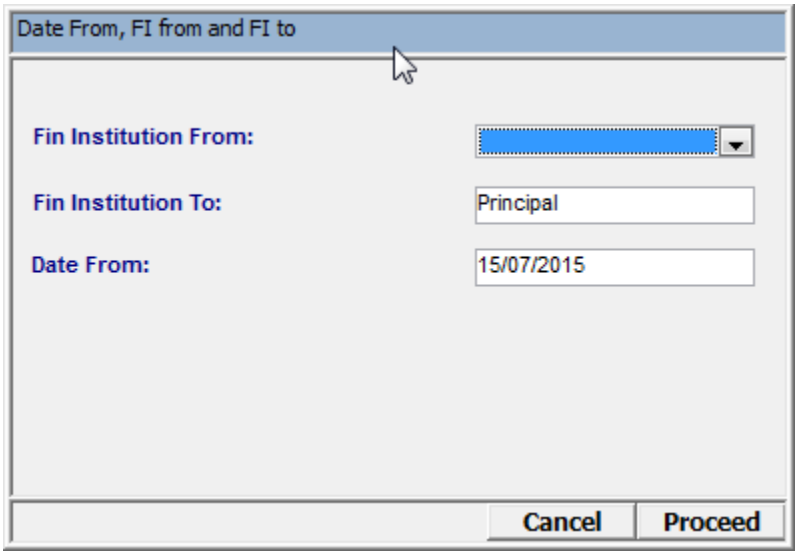


Fig. 29. "Date From, FI from and FI to" form

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

Configuring Bank Branches and Divisions

"Branches" form

Branches are configured in the "Branches" form (Full → Main Tables → Branches), see Fig. 30.

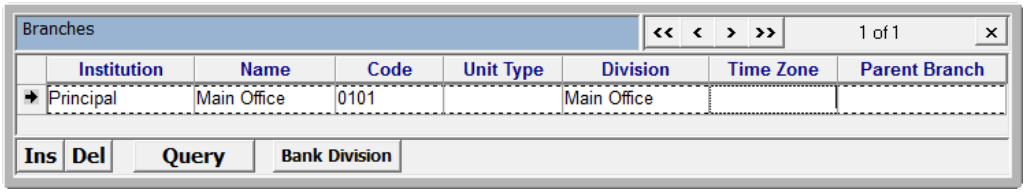


Fig. 30. "Branches" form

This form contains the following 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 form "Full → Configuration Setup → Main Tables → Unit Types", 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 Bank Division] button. A new record will be created in the "Bank Divisions" form (Full → Configuration Setup → Accounting Setup → Bank Divisions) and an informational message will open: "Bank Division was created". 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 influence the daily opening procedure.
- *Parent Branch* – parent branch. This field allows a branch hierarchy to be configured.

The [Bank 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.

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

"Bank Divisions" Form

The "Bank Divisions" form (Full → Configuration Setup → Accounting Setup → Bank Divisions) is used to keep records of a bank's structural divisions, see Fig. 31.

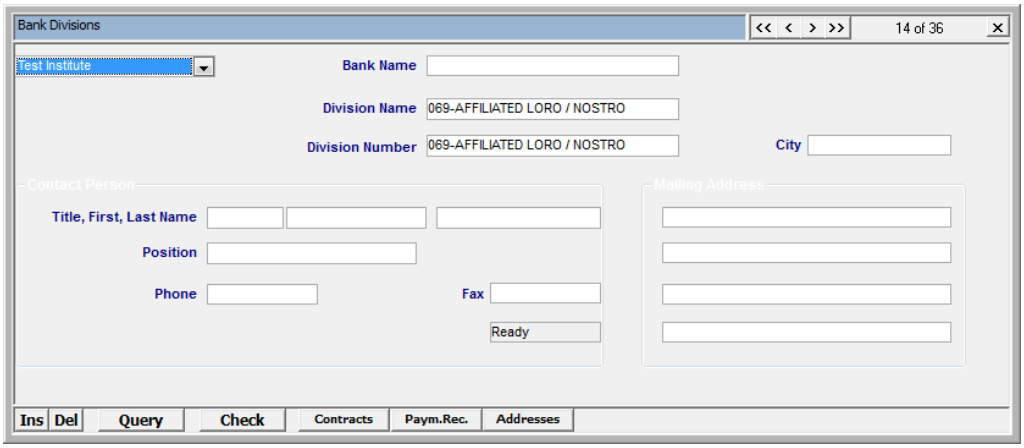


Fig. 31. "Bank Divisions" form

The form contains the following records:

- Records created manually in the "Branches" form. These records contain additional information about bank branches.
- Records created manually in the "Bank Divisions" form for linking to financial institutions. These records contain additional information about financial institutions.
- Technical records created on the basis of 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.

"Unit Types" Form

The "Unit Types" form (Full → Configuration Setup → Accounting Setup → Unit Types) is used to keep records of the bank's structural unit types (for example, department types), see Fig. 32. These records are used when filling in the *Unit Type* field of the "Branches" form ("Full → Main Tables → Branches", see the section ""Branches" form"), see Fig. 30.

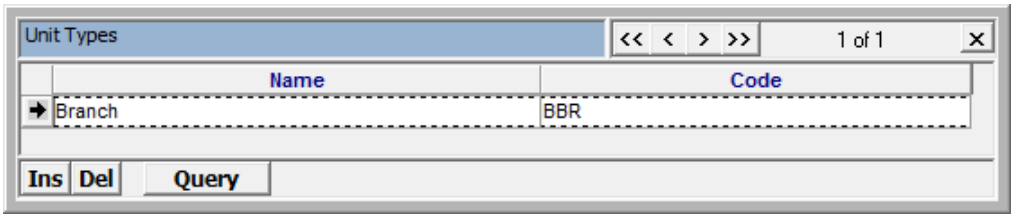


Fig. 32. "Unit Types" form

This form contains the following fields:

- *Name* – bank structural unit name,
- *Code* – bank structural unit code.

Chapter 3. Interbranch Transactions

This section contains a detailed description of Interbranch routing setup, rules for generating macrotransactions for interbranch transactions, and examples of typical tasks and the way they are performed.

Configuring Interbranch Routing

To perform interbranch transactions, the system uses a special table, "Interbranch Routing".

Interbranch Routing Table

The Interbranch routing table is set up in the "Interbranch Routing" form (Full → Configuration Setup → Routing → Interbranch Routing).

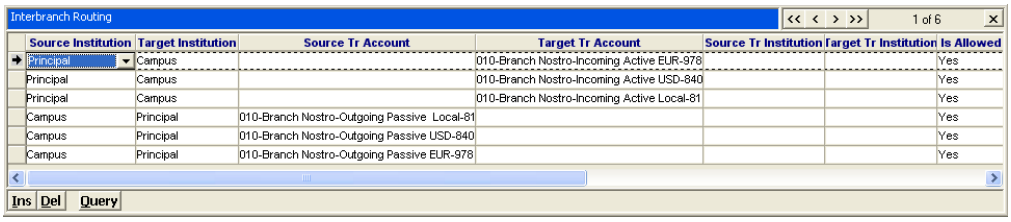


Fig. 33. Interbranch routing table

The "Interbranch Routing" table (see Fig. 33) contains the following 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 is specified in the following format: "<name of bank contract>-<name of contract account> <name of account currency> – <code of account currency>".

  For example, the entry "002-Branch Nostro – Outgoing Passive USD-840" means that transactions will be reflected in the source institution's dollar account "Outgoing Passive" of the "002-Branch Nostro" contract.
- *Target Tr Account* – target institution's account in which transactions are reflected. The field has the same format as 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 section "Posting Macrotransactions" in the Documents Administrator Manual).

  - 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. Possible values:
  - "Yes" – routing according to this rule is permitted.
  - "No" – routing according to this rule is not permitted.
  - "Custom" – if this value is set, when searching for a routing rule, and 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 the WAY4 vendor.

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 (e.g. "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 field *Target* in the "Full → Configuration Setup → Transaction Types → Transactions – All" form).
- For Online:
  - "Yes" – when this value is set, inter-branch routing will be used for both financial documents and authorisation documents.
  - "No" – when this value is set, inter-branch routing will only be used for financial documents; routing for authorisation documents will be determined according to Interchange routing rules.
- *For Trans Cond* – list for selecting transaction conditions.

Methods of Interbranch Routing Setup

In WAY4, there are several ways to set up Interbranch routing (i.e. to fill in the "Interbranch Routing" table):

- The "Full → Configuration Setup → Routing → Set Default Interbranch Routing" procedure generates a complete Interbranch routing scheme that describes rules for performing transactions between all institutions registered in the system.

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

- Standard routing can be set up for a separate FI. For this, proceed as follows:
  - In the "Financial Institutions" form (see Fig. 12 in section "Basic FI Parameters"), select the necessary FI and click the [Interbranch] button.
  - In the dialogue box, make sure that routing is set up for the necessary institution, 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 procedure configuring Interbranch routing for a separate FI deletes all configurations manually made for the FI in the "Interbranch Routing" form and generates configurations based on standard rules.
- Routing configurations can be copied from another FI. For this, proceed as follows:
  - In the "Financial Institutions" form (see Fig. 12 in section "Basic FI Parameters"), select the necessary FI and click the [Interbranch] button.
  - In the dialogue box, make sure that routing is set up for the necessary institution, click the [Redefine] button and select "Copy From" from the context menu.
- Manual setup (adding or changing records) when custom accounting of various types of interbranch transactions is necessary.

Typical Interbranch Routing Contracts

Interbranch routing contracts are subcontracts of the FI's Branch Nostro contract.

For example, the "002-BRANCH_NOSTRO" contract (Branch Nostro) has the following subcontracts:

- 002-BRANCH_ATM (Branch ATM) – contract for another branch's ATMs
- 002-BRANCH_IMPRINTER (Branch Imprinter) – contract for another branch's imprinters
- 002-BRANCH_POS (Branch POS) – contract for another branch's POS terminals
- 002-BRANCH_VISA (Branch VISA) – contract for this branch's Visa cards
- 002-BRANCH_EP (Branch E/P) – contract for this branch's Electron/Plus cards
- 002-BRANCH_ECMC (Branch EC/MC) – contract for this branch's MasterCard cards
- 002-BRANCH_CIRRUS (Branch Cirrus/Maestro) – contract for this branch's Cirrus/Maestro cards

- 002-BRANCH_LOCAL_CARD (Branch Local Card) – contract for this branch's cards of another payment systems (not VISA, Electron Plus, MasterCard, or Cirrus/Maestro)
- 002-BRANCH_CLIENT (Branch Client) – contract representing all issuing/acquiring contracts of other branches
- 002-BRANCH_ACQ_FEES (Branch Acquiring Fees) and 002-BRANCH_ISS_FEES (Branch Issuing Fees) – contracts for accounting interbranch settlement fees

When interbranch transactions are performed, the Branch Nostro contract of the highest FI in a hierarchy is never used.

Settings for Migrating to New Interbranch Routing Standards (Starting from Version 03.36.30)

To automate migration to new Interbranch routing standards, contact WAY4 customer support.

Starting from version 03.36.30, new Interbranch routing standards are available in WAY4 that allow Interbranch entries to be posted in the head financial institution's bank contract accounts. Until version 03.36.30, entries were not posted in the head financial institution's bank routing contracts (001-BRANCH-NOSTRO).

To support new Interbranch routing standards (for the generation of GL entries in the head financial institution when Interbranch transactions are executed), the following settings must be made for the head financial institution:

- Configure a special Accounting Scheme for the head financial institution (see the section "Configuring an Accounting Scheme for the Head Financial Institution").
- Based on the Accounting Scheme that has been created; create bank contracts for all subsidiary financial institutions (see the section "Configuring Interbranch Routing Bank Contracts for the Head Financial Institution").
- In the "Interbranch Routing" table, specify the accounts of the created contracts (see the section "Configuring the "Interbranch Routing" Table").
- Enable the new mode for posting entries for Interbranch routing (see the section "Enabling the New Interbranch Routing Mode").

Interbranch entries can be posted in the old mode (see the section "Enabling the New Interbranch Routing Mode"). It is not recommended to retain the old mode of working with Interbranch entries.

Configuring an Accounting Scheme for the Head Financial Institution

In the head financial institution, create a new independent Accounting Scheme for routing (001-Interbranch Loro/Nostro HO) according to which routing contracts for all subsidiary financial institutions will be created. This Accounting Scheme can be created by duplicating an existing (original) Accounting Scheme for routing (001-Interbranch Loro/Nostro).

A new Accounting Scheme should be created since the parameters of an existing Accounting Scheme for Interbranch routing are inherited by branches.

In the new Accounting Scheme (001-Interbranch Loro/Nostro HO), the following parameters must be changed for all accounts participating in routing:

- The value of the *Numeration Type* parameter should be set to "First Approval".
- The value of the *Aggregate GL For* parameter should be set 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 ABS.

Configuring Interbranch Routing Bank Contracts for the Head Financial Institution

Based on the new Accounting Scheme (001-Interbranch Loro/Nostro HO; see the section "Configuring Interbranch Routing Bank Contracts for the Head Financial Institution"), new Interbranch routing bank contracts must be created in the head financial institution:

- For each branch, a separate bank contract is created (001-BRANCH_NOSTRO-XXX), where XXX is the branch code used for numbering the contracts of the corresponding branch: 02, 003, 112, etc.
- After approving new Interbranch routing bank contracts, specify actual account numbers for them that will be used for entries in the head financial institution. These correspond to numbers in the *HeadOffice GL#* (HD_GL_NUMBER) field of accounts opened under XXX-BRANCH_NOSTRO branch contracts (the *HeadOffice GL#* field is present in the account template in Accounting Schemes for bank contracts).

  Account numbers can be specified using the procedure "Renumber Subsidiary GL Accounts" (Full → DB Administrator Utilities → Special Contract Utilities → Renumber Subsidiary GL Account).

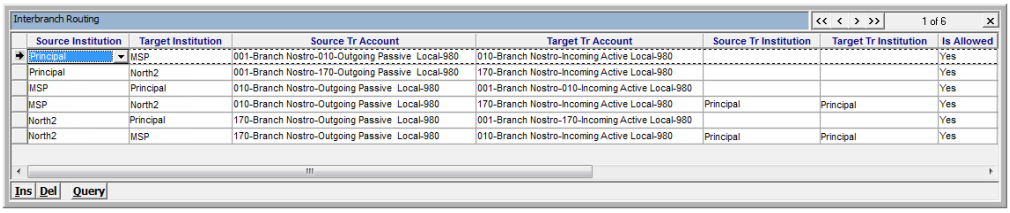
  When specifying account numbers corresponding to numbers in the *HeadOffice GL#* field, observe the "mirrored" correspondence of accounts: "Incoming"/"Outgoing" and "Active"/"Passive".

Configuring the "Interbranch Routing" Table

After new Interbranch routing bank contracts have been created (see the sections "Configuring an Accounting Scheme for the Head Financial Institution" and "Configuring Interbranch Routing Bank Contracts for the Head Financial Institution") the "Interbranch Routing" table must be reconfigured (Full → Configuration Setup → Routing → Interbranch Routing). To support Interbranch routing standards, both fields must be filled in: *Source Tr Account* and *Target Tr Account*. I.e. in existing Interbranch routing records, fill in the *Source Tr Account* or *Target Tr Account* field, respectively. For an example of a configuration between two branches (MSP and North2) and the head financial institution (Principal), see Fig. 34.

New routing settings become effective immediately for documents whose "Source" or "Target" contract is in the head office. Transit entries will be

generated correctly only after the new Interbranch routing mode is enabled (see the section "Enabling the New Interbranch Routing Mode").



Source Institution	Target Institution	Source Tr Account	Target Tr Account	Source Tr Institution	Target Tr Institution	Is Allowed
Principal	MSP	001-Branch Nostro-010-Outgoing Passive Local-980	010-Branch Nostro-Incoming Active Local-980			Yes
Principal	North2	001-Branch Nostro-170-Outgoing Passive Local-980	170-Branch Nostro-Incoming Active Local-980			Yes
MSP	Principal	010-Branch Nostro-Outgoing Passive Local-980	001-Branch Nostro-010-Incoming Active Local-980			Yes
MSP	North2	010-Branch Nostro-Outgoing Passive Local-980	170-Branch Nostro-Incoming Active Local-980	Principal	Principal	Yes
North2	Principal	170-Branch Nostro-Outgoing Passive Local-980	001-Branch Nostro-170-Incoming Active Local-980			Yes
North2	MSP	170-Branch Nostro-Outgoing Passive Local-980	010-Branch Nostro-Incoming Active Local-980	Principal	Principal	Yes

Fig. 34. Interbranch routing table (new routing standards)

Enabling the New Interbranch Routing Mode

To enable the new Interbranch routing mode for transit entries, set the global parameter NEW_INTERBRANCH_ROUTING to "Y" (the parameter's default value is "N" – by default, the new Interbanch routing mode is not enabled). See the description of the global parameter NEW_INTERBRANCH_ROUTING in the document "WAY4™ Global Parameters".

Starting from version 03.40.10, settings for support of new interbranch routing standards (for example, creation of separate accounting schemes, contracts) are made automatically during initial installation of WAY4. From this version onward, the value of the global parameter NEW_INTERBRANCH_ROUTING is "Y" by default in standard configurations. When upgrading WAY4 to version 03.40.10, settings to upgrade to the new standards are not made automatically (the original interbranch routing settings are kept).

Rules for Creating Macrotransactions for Interbranch Transactions

For general principles of creating macrotransactions in WAY4, see the Documents Administrator Manual.

Rules for creating macrotransactions for interbranch transactions are shown in the examples that follow.

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

Assume that a Visa card belonging to FI 2 is used in an FI 1's device (see Fig. 35). In this way, FI 1 is a source, and FI 2 is a target.

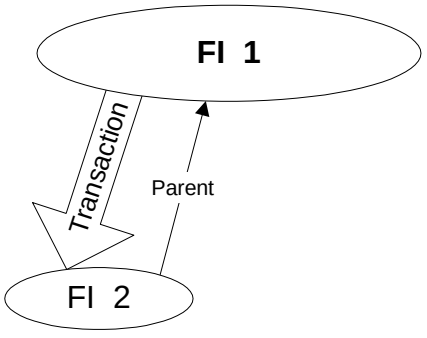


Fig. 35. A child institution's card is used in a parent institution's device

This transaction creates two macrotransactions (see Fig. 36):

- Macrotransaction Macro 1 has the "Target" type (the *Entry Type* field of the macrotransaction), belongs to FI 2 and occurs between the card contract and the "002-Branch ATM" contract, which is a subcontract of the "002-Branch Nostro" contract.
- Macrotransaction Macro 2 has the "Source" type, belongs to FI 1 and occurs between the ATM contract and the "001-Branch VISA" contract.

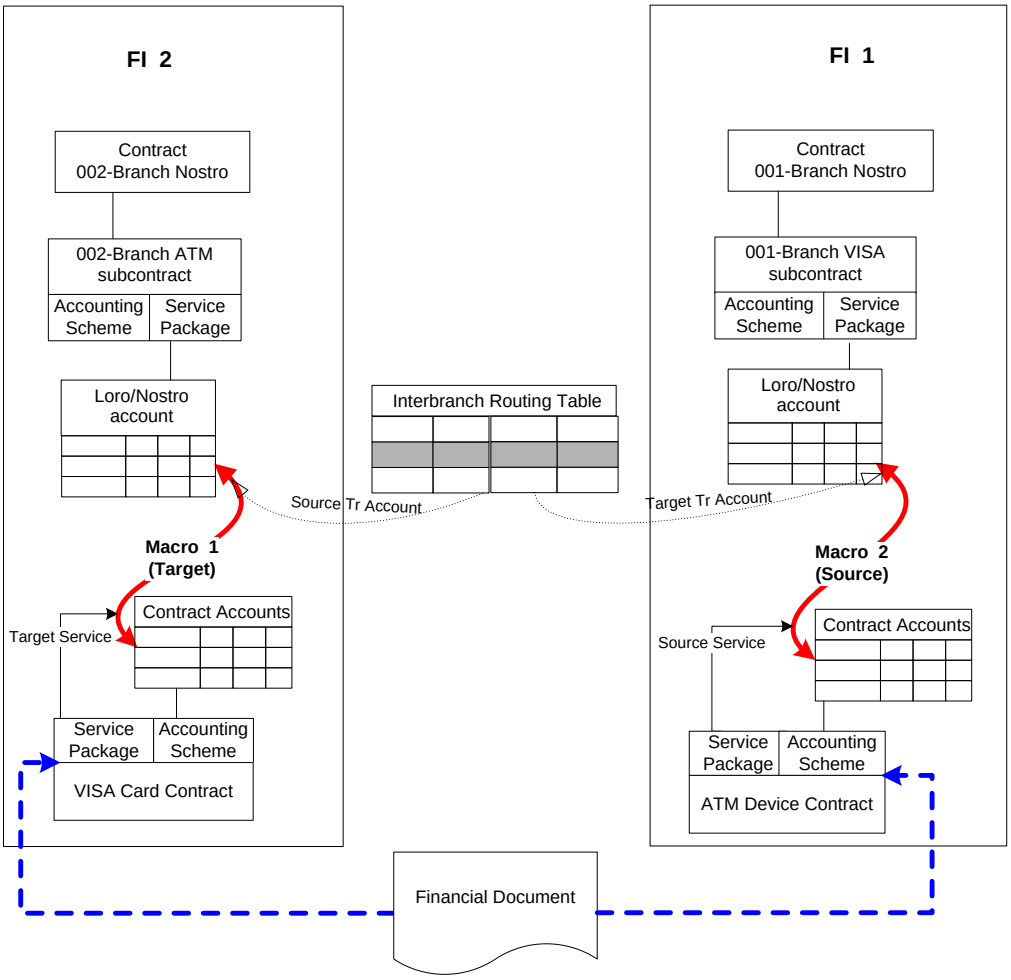


Fig. 36. Macrotransactions generated when a child institution's card is used in a parent institution's ATM

Below is 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:

1. In the "Interbranch Routing" table, the system searches for an entry with the following transaction parameters:
   - The *Source Institution* field contains "FI 1".
   - The *Target Institution* field contains "FI 2".
   - The *Currency* field contains the transaction currency (*Settlement Currency* from the document).

- Fields *Target Category*, *Target Type*, *Terminal Category*, and *Transaction Type* correspond to the document parameters or are 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" contract. In our example, the *Target Tr Account* field can contain the value "001-Branch Nostro-Incoming Active Local-810", which is an account of the "001-Branch Nostro" contract.
3. 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 "002-Branch ATM" is selected as the pair for "VISA Card Contract" and "001-Branch VISA", for "ATM Device Contract".
4. Accounts to which macrotransactions must be posted are determined as follows:
   - For macrotransaction 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 *Source Tr Account* field in the Interbranch routing table.

     The global parameter DEFAULT_INST_ROUTING 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".
   - For macrotransaction 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 "001-Branch VISA" subcontract. If the account is not specified in the Service or the Service is not used at all, and the "001-Branch VISA" 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 in the Interbranch routing table will be used.
5. An entry is created using the numbers of accounts involved in the macrotransaction. The entry will belong to the FI of the corresponding macrotransaction.

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

Assume that a Visa card belonging to FI 2 is used in a device belonging to FI 3. In this case, FI 3 is a source, and FI 3 is a target:

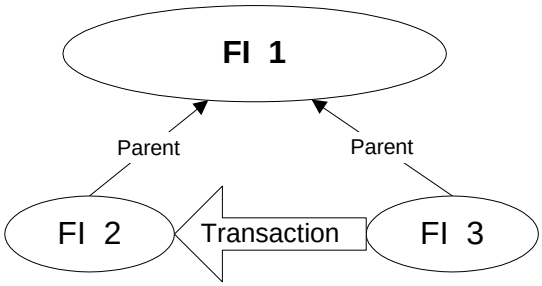


Fig. 37. A child FI's card is used in an ATM of another child FI

In this case, three macrotransactions are created (see Fig. 38):

- Macrotransaction Macro 1 (Target) belongs to FI 2 and occurs between the card contract and the "002-Branch POS" contract, which is a subcontract of the "002-Branch Nostro" contract.

  For macrotransaction Macro 1 (Target):

  - The target contract account is determined by the card contract's target service.
  - The source contract account is determined by the value of the *Target Tr Account* (transit account) field in the Interbranch routing table.

    The global parameter DEFAULT_INST_ROUTING 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".

  The following entries in WAY4 are made for macrotransaction Macro 1:

  - Debit Target Account: 002-Our Visa contract Cl Deposit account.
  - Credit Source Account: 002-Branch POS contract (subcontract of the 002-Branch Nostro) Incoming Passive account.

- Macrotransaction Macro 2 (Source) belongs to FI 3 and occurs between the device contract and the "003-Branch VISA" contract that is the subcontract of the "003-Branch Nostro" contract.

  For macrotransaction Macro 2 (Source):

  - The source contract account is determined by the device contract's source service.
  - The target contract account is determined by the value of the *Source Tr Account* (transit account) field in the Interbranch routing table.

    The global parameter DEFAULT_INST_ROUTING 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".

  The following entries in WAY4 are made for macrotransaction Macro 2

- Debit Target Account: 003-Branch Visa contract (subcontract of the 003-Branch Nostro contract) Outgoing Active account.
- Credit Source Account: 003-Our POS contract Merchant Receivable account.

- Transit macrotransaction(s) Macro 3 (Transit).
  - Variant 1. Old interbranch routing mode in which entries are not recorded in the head financial institution FI 1 routing bank contract. A macrotransaction is generated between the contracts of FI 2 and FI 3 using contracts and accounts of the corresponding record in the Interbranch Routing table. The following entries are generated:
    - Debit Target Account: 002-Branch Visa contract (subcontract of the 002-Branch Nostro contract) Incoming Active account.
    - Credit Source Account: 003-Branch POS contract (subcontract of the 003-Branch Nostro contract) Outgoing Passive account.
  - Variant 2. New interbranch routing mode (see the section "Settings for Migrating to New Interbranch Routing Standards (Starting from Version 03.36.30)"). A macrotransaction is generated between the contracts of FI 1 using the corresponding records in the Interbranch Routing table (records "between" FI 2 and FI 1 and records "between" FI 3 and FI 1).

  A search for accounts is made as follows:

  - The source contract account is determined by the corresponding Service of the "001-Branch POS 003" subcontract. If no account is specified in the Service, or the Service isn't provided for at all and the Service Package that uses the "001-Branch POS" contract has "For All" in the *Use Def Service* field, the account from the *Target Tr Account* field (transit account) in the Interbranch routing table will be used.
  - The target contract account is determined by the "001-Branch VISA 002" subcontract's Service. If no account is specified in the Service, or the Service isn't provided for at all and the Service Package that uses the "001-Branch VISA" contract has "For All" in the *Use Def Service* field, the account from the *Source Tr Account* field (transit account) in the Interbranch routing table will be used.

  The following entries are generated:

  - Debit Source Tr Account of the routing table (Target Account): 001-Branch Nostro 002 Visa contract Outgoing Active account.
  - Credit Target Tr Account of the routing table (Source Account): 001-Branch Nostro POS 003 contract Outgoing Passive account.

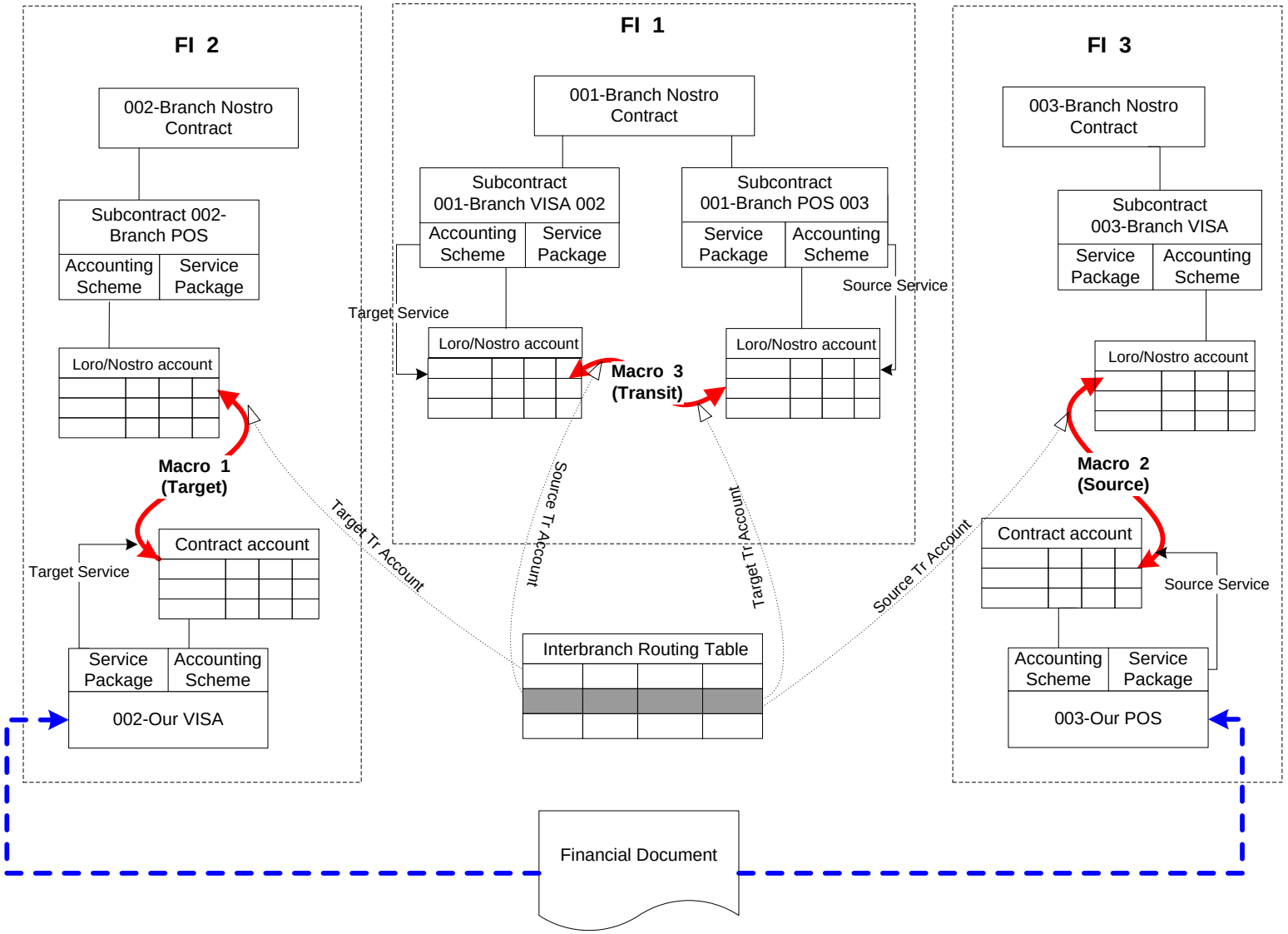


Fig. 38. Macrotransactions generated when a child FI's card is used in an ATM belonging to another child FI

Example 3. FI 4's card is used in FI 1's ATM

Let us consider an example when an interbranch transaction takes place between financial institutions as shown in Fig. 39.

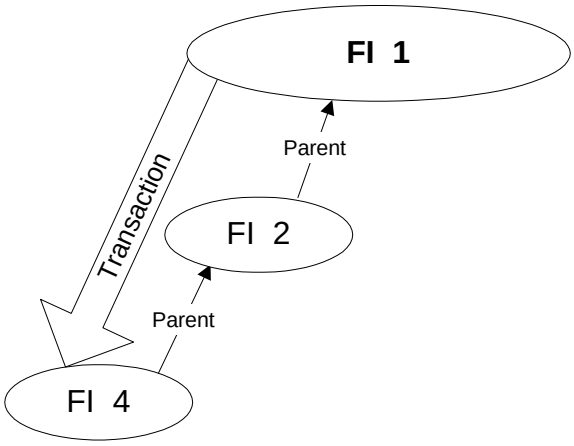


Fig. 39. FI 4's card is used in FI 1's ATM

In this case, three macrotransactions are created:

- The first macrotransaction has the "Source" type, belongs to FI 1 and occurs between the device contract and the "001-Branch VISA" contract, which is a subcontract of the "001-Branch Nostro" contract. This macrotransaction is different in the way a target contract account is determined:
  - In the "Interbranch Routing" table, the system searches for an entry with the following parameters:
    - The *Source Institution* field contains "FI 1".
    - The *Target Institution* field contains "FI 4".
    - The *Currency* field contains the transaction currency (*Settlement Currency* from the document).
    - Fields *Target Category*, *Target Type*, *Terminal Category*, and *Transaction* correspond to the document parameters or are 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 2".
- The second macrotransaction has the "Transit" type, belongs to FI 2 and occurs between subcontracts of the "002-Branch Nostro" contract.
  - The system searches the "Interbranch Routing" table for an entry with the following parameters:
    - The *Source Institution* field contains "FI 1".
    - The *Target Institution* field contains "FI 2".
    - The *Currency* field contains the transaction currency (*Settlement Currency* from the document).
    - The *Target Category, Target Type, Terminal Category* and *Transaction* fields correspond to the parameters of the document or are left blank.

- The accounts in the *Source Tr Account* and *Target Tr Account* fields of the found record are considered. These are "Branch Nostro" contract accounts. In our example, the *Target Tr Account* field can contain the value "002-Branch Nostro-Incoming Active Local 810", which is a "002-Branch Nostro" account.
- According to the counterparty contract type, the system selects the corresponding subcontract of the "002-Branch Nostro" contract. It is this rule that determines that the "002-Branch ATM" and "002-Branch VISA" contracts will be selected.

The global parameter DEFAULT_INST_ROUTING 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".

Example 4. FI 4's card is used in FI 3's ATM

Let us consider one more example of an interbranch transaction, where two contracts of unrelated FIs through transit FIs (see Fig. 40).

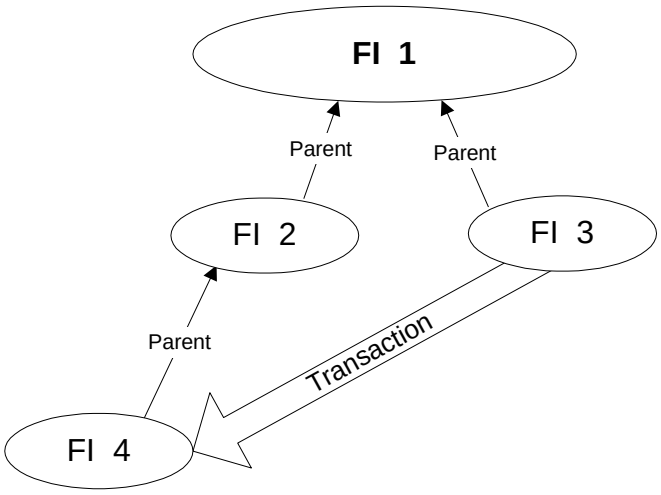


Fig. 40. FI 4's card is used in FI 3's ATM

In this case, four macrotransactions are created:

- The first macrotransaction belongs to FI 3, has the "Source" type and occurs between the device contract and a subcontract of the "003-Branch Nostro" contract. A target contract account is determined according to the Interbranch routing table.
- The second macrotransaction belongs to FI 1, has the "Transit" type and occurs between subcontracts of the "001-Branch Nostro" contract. It is generated according to the same rules as a macrotransaction of the "Transit" type in "Example 2. A child FI's card is used at an ATM of another child FI".
- The third macrotransaction belongs to FI 2, has the "Transit" type and occurs between subcontracts of the "002-Branch Nostro" contract. It is generated according to the same rules as a macrotransaction of the "Transit" type in "Example 2. A child FI's card is used at an ATM of another child FI".

- The fourth macrotransaction belongs to FI 4, has the "Target" type and occurs between the card contract and a subcontract of the "004-Branch Nostro" contract. A source contract account is determined in the same way as the target contract in the first macrotransaction.

The global parameter DEFAULT_INST_ROUTING 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".

Charging Fees in Favour of the Parent FI

When a transaction is performed between a parent FI's device and a child FI's card, fees are charged to an account of the "NNN-BRANCH_ISS_FEES" (Branch Issuing Fees) contract of the child FI. Correspondingly, when a transaction is performed between a parent FI's card and a child FI's device, fees are charged to an account of the "NNN-BRANCH_ACQ_FEES" (Branch Acquiring Fees) contract of the child FI.

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

- The parent FI must be specified in the account template of the Accounting Scheme used by the contract of the branch to which fees are charged (Full → Configuration Setup → Accounting Setup → Bank Account Schemes). Then 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 "NNN-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 information on configuring standing payment orders, see section "Configuring Standing Payment Orders" in the Standing Payment Orders Administrator Manual.

Deferred Settlement with Branches or Affiliated Banks

Settlement with bank branches or affiliated banks is usually deferred for transactions performed in a bank branch's or affiliated bank's devices.

Assume that a card belonging to a head office is acquired in a bank branch's device. According to the institution hierarchy, in this case, a card belonging to a parent FI is acquired in a child FI.

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

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

- The account must belong to the parent institution (the *Fin Institution* field of the corresponding Accounting Schemes template must contain the parent FI).
- The "Value Date Due" value must be specified in the *Due Type* field.
- The 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 interbranch transactions are performed, 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 transaction 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 affiliated banks.

Chapter 1. Tags in the *Special Parms* Field of a Financial Institution

When the USE_TRANS_AMOUNT and AUTH_USE_DOMESTIC parameters (tags) are used, note the priorities for setting them (see below, in descending order):

- Service – the tag in a Service has the highest priority and redefines all other setting for this tag.
- Transaction subtype. The value of the tag in the transaction subtype is inherited on the Service level (if there is no redefining setting in the Service itself). I.e. this setting determines rules for all Services that will be used for transactions with this subtype.
- Additional Package.
- Product.
- Service Package.
- Financial Institution.
- Global parameter of the same name.

Recommended schemes for redefining the USE_TRANS_AMOUNT and AUTH_USE_DOMESTIC tags:

- If different rules are used (set with these tags) for different financial institutions or Products, a tag is redefined on the financial institution, Service Package, Product and Additional Package level (according to increasing priority).
- If the same rules are used (set with these tags) for all institutions/Products but these rules may differ for different transaction types, tags should be redefined on the level of separate transaction subtypes. A tag set in a transaction subtype is redefined on the level of separate Services.
- If different rules are used (set with these tags) in different institutions/Products and for different transaction types, these rules should be defined directly on the Service level.

 These parameters (tags) are not redefined on the tariff level since the tags are processed when processing a document and in terms of system performance, it's not efficient to search for a tariff.

Name	Value	Description
Tags in the *Special Parms* field of a financial institution:		
USE_TRANS_AMOUNT	"Y" "N" "F"	Used to determine the method for calculating the amount debited from "our" card accounts when a financial document imported from payment systems is posted, as well as the amout blocked when processing an authorization request: • "F" value – the transaction amount is blocked and debited from the contract if the card has an account in the transaction currency. • "Y" value – the transaction amount is always blocked and debited from the contract. • If the tag is not set or its value is "N", the settlement amount will be debited from the card. The tag redefines the global parameter of the same name. For more information, see the section "Calculating the Debited Amount ("USE_TRANS_AMOUNT" tag)" of the document "Financial Institutions".
USE_ANALYTIC	"Y" "N"	This tag redefines the global parameter USE_ANALYTIC on the level of a specific financial institution (the USE_ANALYTIC global parameter is used to enable expanded subsidiary GL accounting). To do so, set the parameter to "Y". The WAY4 base configuration does not include expanded subsidiary ledger accounting. This functionality is provided according to a separate agreement with the WAY4 vendor.
ACCEPT_NOT_FOUND	"Y" "N"	Makes it possible to search for a dispute contract to record suspicious transactions under a financial institution to which the BIN corresponding to the card belongs (the dispute contract is determined by contract subtype). For example, when making transactions for a BIN registered in the system, but for which no card was found, this parameter makes it possible to consider this operation not on dispute contract accounts of the head financial institution (default behaviour) but on the accounts of the financial institution to which the BIN belongs (search is made according to the first 6 numbers of the IBN). If the BIN belongs to several financial institutions, the choice will be random.
AUTH_USE_DOMESTIC	"Y" "C" "A" "N"	Tag can be used to redefine the value of the global parameter of the same name (for more details, see the document "WAY4™ Global Parameters").

Name	Value	Description
USE_AUTH_FX	"Y" "N"	This tag is used to redefine the value of the global parameter of the same name. The parameter specifies the date for the FX rate used when processing financial documents. When the "Y" value is set, the FX rate on the date of authorisation will be used when processing a financial document. For more details, see the document "WAY4™ Global Parameters".
SAVE_CARD_DATE_OPEN		The tag makes it possible to inherit a contract's opening date when replacing a lost card. In this case, the annual card service fee will not be charged again when a card is issued in replacement for one that has been lost.
CREATE_FOR	<Product Code>	This tag is used to create one common contract that unites all a client's other contracts. The CREATE_FOR tag is set on the institution level and redefines the global parameter of the same name. The tag value is a Product code (Liability Product code). When an issuing account contract is created for a specific client, a liability contract is automatically created for it (based on the Product with the code specified in the tag and the Reporting relation type). If such a liability contract was already created for the client, its number is automatically specified in the Liab Contract field of the issuing account contract. I.e. for *issuing contracts* belonging to the same client, one common liability contract is created.
ENABLES_SHIFT_DAY	"Y" "N"	This tag is used to redefine the value of the global parameter of the same name. Use of the ENABLES_SHIFT_DAY tag with the "Y" value in a production system makes it possible to open a non-working day as a banking day. If the date being opened cannot be later than the next working day. I.e. a non-working day following the current banking day (defined according to the table "Business Calendar"; "Full → Configuration Setup → Main Tables → Business Calendar") can be opened as a banking day.
CS_DOMAIN	<list of domain codes separated by commas>	The tag makes it possible to specify classifiers available for a specific financial institution. The tag value is the classifier domain code or list of domain codes separated by commas. A domain code mask using the "[%]" service character can be used as the tag value. The service character "_" meaning "any character" can be used in the tag value. Classifiers from domains set for a financial institution are available for all the financial institution's contracts. The tag can be set for Service Packages.

Name	Value	Description
USE_MONTH_WEIGHT	"B"	USE_MONTH_WEIGHT=B; redefines the global parameter of the same name. I.e. the algorithm for accruing interest corresponding to this value can be set in a financial institution. For more information, see the section "USE_MONTH_WEIGHT" of the document "WAY4 Global Parameters".
DECLINE_NON_AUTHORIZED	"Y" "N"	The tag redefines the global parameter of the same name. For more information, see the section "DECLINE_NON_AUTHORIZED" of the document "WAY4 Global Parameters".
IGNORE_IPS_PRODUCT	ALL	The tag redefines the global parameter of the same name. For more information, see the section "IGNORE_IPS_PRODUCT" of the document "WAY4 Global Parameters".
UNIQUE_INST_SERVICE_CODE	"Y"	This tag makes it possible on the financial institution level to enable checking the value of an instalment scheme's Service Code field when approving the scheme. The tag redefines the same global parameter. By default, no check is made. This tag is used when working with the WAY4 Instalments module. The module is delivered according to a separate agreement with the WAY4 vendor.
USE_AUTO_STORNO	"A" "Y" "R" "C" "N"	The tag is used together with the USE_AUTO_STORNO global parameter in the Reversal Management module. For more information, see the documents Reversal Management and Reversal Management Limited. The full version of the Reversal Management module is not included in the basic WAY4 configuration and is supplied according to a separate agreement with the WAY4 vendor.
INST_DAILY_INTEREST_CODES	<fee code1><fee code2>…<fee codeN>	Used to enable daily accrual of interest on an instalment loan. Specify the codes of fees that must be accrued daily as the tag's value. The tag redefines the global parameter of the same name. To enable daily accrual of loan interest, additional settings are required. See the section ""Invoice Events" Form" of the document "Instalment Loans in WAY4™". The WAY4 Instalments module (module for managing instalment loans) is not included in the basic configuration of WAY4 and is supplied according to an additional agreement with the WAY4 vendor.

Name	Value	Description
BLOCK_IF_AVAILABLE_FEE_DIFF		The tag redefines the global parameter of the same name. For more information, see the section "BLOCK_IF_AVAILABLE_FEE_DIFF" of the document "WAY4 Global Parameters".
INST_PAYIN	"I" "B"	The INST_PAYIN tag redefines the same global parameter. The tag is used when generating a response to an authorisation request from a terminal that supports MasterCard Instalments. The tag is used in instalment plan simulation mode. Possible values: • "I" – only generation of an instalment plan is possible (default value) • "B" – standard payment and generation of an instalment plan is possible. See the section "Configuring Functionality to Pay for Transactions using Simulated Instalment Plans" of the document "Instalment Loans in WAY4".
INST_EVENT_INHERIT_TAGS	<list of tags separated by commas>	The tag redefines the global parameter of the same name. The tag is used to set up inheritance of tags from an instalment plan to a document. For more information, see the document "Instalment Loans in WAY4™". The module requires a separate license from the WAY4 vendor.
ALLOW_REV_IN_TREE	Y N	The tag redefines the same global parameter. See the document "WAY4 Global Parameters". In turn, this tag can be redefined in an acquiring contract by a contract parameter (see the document "Acquiring Module").
UNIQUENESS_CLIENT_ITN	Y N	The tag redefines the same global parameter. See the document "WAY4 Global Parameters".
WAIVED_PD_MODE	"<="	The tag redefines the same global parameter. See the document "WAY4 Global Parameters".
AUTH_AMOUNT_DIFF_PCNT	<positive integer> <tag name>	The tag redefines the same global parameter that determines the permissible percent difference between a financial transaction amount and the amount blocked when an authorization document is posted. The following may be set as the tag's value: <positive integer> <tag name> – with this tag, the permissible difference must be set in the target contract's Product. The tag can be set for a financial institution. The tag in a transaction subtype has a higher priority.

Name	Value	Description
		For more information, see the section "AUTH_AMOUNT_DIFF_PCNT" of the document "WAY4 Global Parameters".
AUTH_AMOUNT_DIFF_PCNT_RETAIL	<positive integer> <tag name>	The tag redefines the same global parameter that determines the permissible percent difference between a financial transaction amount and the amount blocked when an authorization document is posted. The following may be set as the tag's value: <positive integer> <tag name> – with this tag, the permissible difference must be set in the target contract's Product. The tag can be set for a financial institution. The tag in a transaction subtype has a higher priority. For more information, see the section "AUTH_AMOUNT_DIFF_PCNT_RETAIL" of the document "WAY4 Global Parameters".
CONVERT_ACQ_BIN	0	The tag redefines the same global parameter. See the section "CONVERT_ACQ_BIN" of the document "WAY4 Global Parameters".
CONVERT_ACQ_BIN_CH	0	The "CONVERT_ACQ_BIN_CH" tag redefines the same global parameter. See the section of the document "WAY4 Global Parameters".
INTEREST_DELAY	0	Makes it possible to redefine the global parameter INTEREST_DELAY. See the section "INTEREST_DELAY" of the document "Global Parameters".
INST_INTEREST_TO_DUE	0	The tag redefines the global parameter INST_INTEREST_TO_DUE. See the section "Configuring Capitalization Dates" of the document "Instalment Loans in WAY4™". The WAY4 Instalments module is not included in the basic configuration of WAY4 and requires an additional license from the WAY4 vendor.
INST_HOLIDAYS_FOR_OPEN	0	The tag redefines the same global parameter. See the section "Configuring Payment Holidays of the document "Instalment Loans in WAY4™". The WAY4 Instalments module is not included in the basic configuration of WAY4 and requires an additional license from the WAY4 vendor.