

Operation Manual

Way4™ Dictionaries

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Contents

1	"SIC Group" Dictionary	5
1.1	Configuring "SIC Groups"	5
1.2	Configuring "SIC Codes"	6
1.3	Including a SIC Code in a SIC Group	7
1.4	Using "SIC Group" to Search Services	7
1.5	Using "SIC Group" when defining Usage Limiters	8
2	Country Area Support	9
2.1	Support for Classifier "Area"	9
2.2	Configuring Country Areas	9
2.3	Registering Countries	10
2.4	Configuring Political Divisions	11
2.5	Using Areas in Way4	12
2.5.1	Searching Routing Contracts in the Interchange Routing Table	12
2.5.2	2.5.2 Using Preferred Counterparties to Search Services	
2.5.3	Analysing the List of Forbidden Retail Outlets	12
3	Business Calendar	13
3.1	Manually Creating a Business Calendar	14
3.2	Using a Pipe to Import a Business Calendar	15
3.2.1	Type of Imported Business Calendar	16
3.2.2	2 Examples of an Imported CSV File	16
4	"Message Channels" Dictionary	18
5	"Message Dictionary"	19
5.1	General Information	19
5.2	Translation of names, messages and descriptions	20
5.3	Updating the "Message Dictionary"	21
5.4	Excluding Duplicate Records from the "Message Dictionary"	23
5.5	Deleting Incorrect GL Transaction Records	23
6	"Service Groups" Dictionary	25



7	Payment System Product Dictionary	27		
8	Contract Statuses	29		
9	"System Instances" Dictionary	31		
10	"NW Groups" Dictionary	34		
11	"Global Constants" Dictionary	38		
12	Redefining System Response Codes	39		
13	"Currency Table" Dictionary	41		
14	"Bank Acquiring Parameters" Dictionary	42		
15	Setting Workstation Numbers for Interaction with NetServer or Transaction Switch			
16	"Languages" dictionary	46		
17	"Address Types" Dictionary	47		
17.1	Address Search	48		
17.2	Address Transliteration Rules	49		
18	Additional Settings for Merchant Service Workbench	51		
19	"Contract IDT Schemes" Dictionary	52		



The section document is intended for bank or processing center employees responsible for configuring WAY4 and describes product creation and configuration.

While working with this document, it is recommended that users refer to the following resources from the Way4 documentation series:

- Way4[™] Service Packages
- · Daily Procedures
- Financial Institutions
- Currency Conversion
- Way4™ Global Parameters
- Generating Reports in Way4™
- Interest Accrual
- Issuing Module. Operation Manual
- Daily Procedures
- DB Manager User Management

The following notation is used in the document:

- Field labels in screen forms are shown in italics.
- Screen form button labels are shown in square brackets; for example [Approve].
- Sequences for selecting user menu items are shown using arrows as follows: "Configuration Setup
 → Contract Types".



Warnings about potentially hazardous situations or actions are marked with a special icon and highlighted.



Information about important features, additional options, or the best use of certain system functions is marked with a special icon and highlighted.

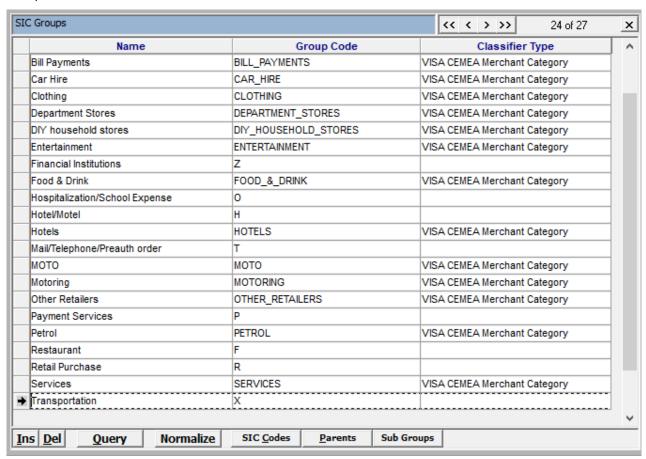


1 "SIC Group" Dictionary

The SIC Group parameter allows Services to be further defined according to the merchant category group.

1.1 Configuring "SIC Groups"

To add a new SIC group, select the menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow SIC Groups".



The form with information about SIC groups

SIC groups can be included in other (higher) groups and form hierarchies.

Interface elements:

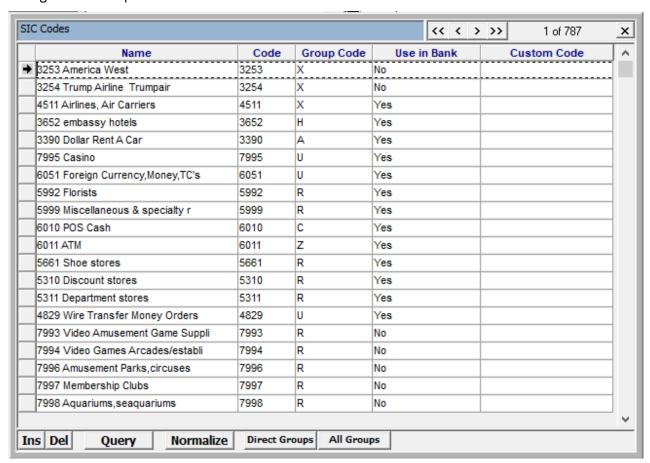
- Name SIC group name.
- Group Code SIC group code.
- Classifier Type group classifier; the value is selected from the hardcoded list. A combination of values set in the Code and Classifier Type fields must be unique in the "SIC Group" dictionary.
- [Ins] add a new record.



- [Del] delete a record. If the area is included in a hierarchy, the record cannot be deleted.
- [Sub Groups] view previously included and include new SIC groups to a selected group. Activities are performed in the "Sub Groups For <name of SIC group>" form.
- [Parents] show a list of groups that include the selected group.
- [SIC Codes] show a list of codes for merchant categories belonging to this group. An activity to include a merchant code is performed in the "SIC Codes" form.
- [Normalize] include the selected record into all parent groups of the hierarchy.

1.2 Configuring "SIC Codes"

To register merchant category codes, use the "SIC Codes" form, opened by the menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow SIC Codes".



Merchant category codes

Interface elements:

- Name merchant category code.
- Code international four-digit code identifying an industry according to its functions and products.
- Group Code code that is used to group merchant categories.
- Use In Bank indicator of whether a specific merchant category is serviced in Way4 or not.
- Custom Code this field is reserved for forward compatibility.



- [Ins] add a new record.
- [Del] delete a record. If the merchant is included in a hierarchy, the record cannot be deleted.
- [Direct Groups] include the merchant category in a SIC group. The activity is performed in the "Direct Groups for <name of merchant category>" form. A SIC group is selected from the list of groups registered in the "SIC Group" dictionary.
- [All Groups] list of SIC groups that include the selected merchant category.
- [Normalize] include the selected record into all parent groups of the hierarchy. For the merchant category to be included in all parent SIC groups, after the merchant category has been included in a group, perform normalization. Normalization is performed in the "SIC Codes" or "SIC Groups" form.

1.3 Including a SIC Code in a SIC Group

To specify the SIC group in which a merchant category code must be included:

- In the "SIC Codes" form, click the [Direct Groups] button for the selected code and open the "Direct Groups for <name of SIC code>" form.
- Click the [Ins] button and select the required group from the drop-down list.

Click the [Normalize] button in the "SIC Codes" or "SIC Groups" form after assigning a SIC group to a merchant category code so that the code is included in a certain SIC group or in all parent SIC groups. During the process for including the merchant code in a SIC group, field values and their uniqueness in the corresponding dictionary are checked:

- Group Code and Classifier Type ("SIC Group" dictionary).
- Code and Group Code ("SIC Codes" dictionary).

If errors are found, the following message is generated: "Normalization has error: see process log".



Note that [Normalize] must be performed each time the composition of "child" groups changes. If a new SIC code is added to a "child" group, it will be added to all parent groups only after normalization. When the [Normalize] button is clicked, normalization will be performed immediately for all changed groups.

To open the list of groups in which the selected merchant category code is included, click the [All Groups] button in the "SIC Codes" form.

1.4 Using "SIC Group" to Search Services

The value of the *SIC Group* field (see the "Transaction parameters" section of the document "Way4 Service Packages") determines that this Service is only applicable for Service operations with retail outlets belonging to the indicated group.



A search for an appropriate Service is made according to the SIC group that includes the merchant. If normalization has been performed and a suitable Service was not found, all possible higher-ranking SIC groups in relation to this group will be analysed.

1.5 Using "SIC Group" when defining Usage Limiters

If normalization has been performed, limiters for the SIC group to which the merchant belongs will be considered, as well as those of higher-ranking groups that include the SIC group. This allows, for example, for a separate limit to be placed on hotel transactions and a general limit for all retail operations.



2 Country Area Support

To support the use of areas in the system, a special classifier "Area" has been created. It is used to route transactions, search Services and specify forbidden retail organisations.

2.1 Support for Classifier "Area"

Areas are defined in the "Country Area" dictionary ("Full → Configuration Setup → Main Tables → Country Area"), which is set up in the same way as the SIC Group dictionary (see the section "SIC Group" Dictionary"). One area can be a part of other areas.

Every country may belong to any area. The area to which a country belongs is determined by the value of the *Area* field in the "Country Table" dictionary ("Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Country Table").

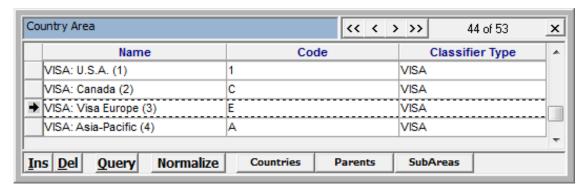
Country classifications are set by the system administrator.

For more flexible definition of an area, use the political divisions dictionary ("Full → Configuration Setup → Main Tables → Country Objects"), in which states and cities belonging to countries in the "Country Table" dictionary are specified.

2.2 Configuring Country Areas

To view the list of countries in an area, use the "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Country Area" user menu item.

The "Country Area" form will open.



Grid for configuring areas

Interface elements:

- Name area name.
- · Code region code.
- Classifier Type region classifier; the value is selected from the hardcoded list. A combination of values set in the Code and Classifier Type fields must be unique in the "Country Area" dictionary.



- [Ins] add a new record.
- [Del] delete a record. If the area is included in a hierarchy, the record cannot be deleted.
- [SubAreas] include the area in another area. Areas can be included in other (higher) areas and form hierarchies.
- [Parents] show a list of areas that include the selected area.
- [Country] show a list of countries that belong to the selected area. For information about the activity to include a country in an area, see the section "Registering Countries".
- [Normalize] include the selected record into all parent areas of the hierarchy.

2.3 Registering Countries

Countries are registered in the "Country Table" form, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Country Table".



List of countries

Interface elements:

- Code (3 Bytes) three-letter country code; the field's value must comply with the ISO 3166-1 alpha-3 international standard for country codes.
- Code (2 Bytes) two-letter country code; the field's value must comply with the ISO 3166-1 alpha-2 international standard for country codes.
- Code (Numeric) three-digit country code; the field's value must comply with the ISO 3166-1 numeric international standard that is used in the United Nations.
- Name country name. The value is entered manually.
- Use In Bank indicator of whether customers from this country are serviced in Way4 or not. For example, when registering a client record in the Country field, only those countries can be selected that have the "Yes" value in this field and for which normalization was performed. For more information, see the section "Client Information" of the document "Issuing Module".
- Custom Code this field is reserved for forward compatibility.
- Postal Code postal (ZIP) code.
- Curr Code local currency code.
- Curr Name local currency name.

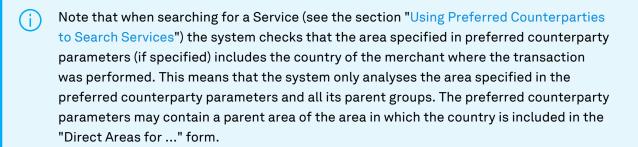


The *Curr Code* and *Curr Name* fields are used in "Dynamic Currency Conversion" functionality to define card currency.

• [Ins] - add a record about a new country.



- [Del] delete the selected record. The record can be deleted if it is not included in areas (hierarchies).
- [Direct Areas] include the country in an area. The activity is performed in the "Direct Areas for <country name>" form. The area is selected from a list of areas registered in the "Country Area" dictionary, see the section "Configuring Country Areas".
- [Normalize] for the country included in any area to be considered by Way4 as included in all parent areas, perform normalization after the country has been included in the area. The "Country Table" or "Country Area" form are used to do so, see the section "Configuring Country Areas". Note that if the Use In Bank field's value is "Yes", or the field's value was changed from "No" to "Yes", and normalization is not performed, the country will not be included in a list of countries that are available when the client is registered.



• [All areas] - list of areas that include the selected country.

2.4 Configuring Political Divisions

To show the list of political divisions (states, cities) specified in the system, select the user menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Country Objects".

The "Country Objects" form will open (see Figure 5).



Figure 5. Form for configuring political divisions

To add a new record or delete a selected record, click the [Ins] or [Del] button, respectively.

When adding a new record, the following fields must be filled in:

- Object Type the type of political division (object type); selected from a list ("STATE" or "CITY").
- Name the object name.
- Code the object code.
- Country Code the name of the country to which the object belongs.
- Parent Code the code of the parent object (for example, for a state the country code; for a city the state code).



2.5 Using Areas in Way4

Areas are used when processing authorizations or financial documents, as well as in the following situations.

2.5.1 Searching Routing Contracts in the Interchange Routing Table

During routing contract search, it is possible, for instance, to set special conditions for transactions from "neighbouring" or "dubious" countries.

When searching for a card's routing contract, the area is determined by the country code in the BIN table. When searching for a device's routing contract, the area is determined by the country code indicated in the document. If a routing contract does not specify an area, it is valid for all areas.

2.5.2 Using Preferred Counterparties to Search Services

The preferred couterparties list contains the Area field, which allows for filtering operations by area.

For cards, the area is determined through the country code in the BIN table. For devices, the area is determined through the country code indicated in the document.

2.5.3 Analysing the List of Forbidden Retail Outlets

The list of forbidden retail outlets (see the section "Configuring Preferred Counterparties" of the document "Preferred Counterparties") contains the *Area* field, which allows operations to be filtered by area.

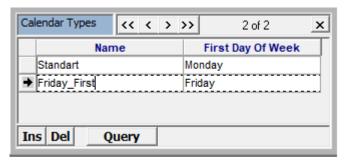
The area is determined by the country code indicated in the document.



3 Business Calendar

The business calendar automatically determines which days are business days and which days are weekends and non-working days. The system checks the business calendar setup when a new banking day is started (see the section "Start of Day procedure" in the document "Daily Procedures"), when the acquiring bank of a retail organisation determines the due date (see the "Posting" section in the document "Way4™ Service Packages") and in some other situations.

Different financial institutions registered in Way4 may use different business calendars. For this, it is possible to register different business calendar types in the system (Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Calendar Types).



Types of business calendars

Form fields:

- Name name of business calendar type.
- First Day Of Week day that will be considered the first weekday in this type of calendar. By default, according to European numeration convention, the first day of the week is Monday.

The used business calendar type is specified in financial institution parameters (the *Calendar Type* field of the "Details for <name of FI>" form). To use different business calendars, enable Time Zones mode, see the document "Time Zones".



The Time Zones mode is available to OpenWay customers according to software licenses.

In WAY4 it is possible to use business calendars that differ from the default calendar (financial institution's calendar), for example, to calculate functional dates, activate payment orders, open/close Events, charge miscellaneous fees, to determine the period funds are blocked when processing an authorization request, etc. To do so, the CALENDAR_TYPE=<name of business calendar type> tag is used. This tag is set for the functional date, payment order, Event, transaction subtypes, or Service.

Due normalization macrotransactions can also be generated and posted according to a separate business calendar that differs from the financial institution's business calendar:

 To post a due normalization for a specific account, a contract functional date with the CALENDAR_TYPE=<name of business calendar type> tag can be used.



- The CALENDAR_TYPE=<name of business calendar type> tag can be set in an account template's
 Template Details field.
 - The specified calendar type will be used when calculating payment dates for accounts created according to this template.
- The CALENDAR_TYPE=<name of business calendar type> tag can be set in the Account Scheme. In this case, the specified calendar type will be used for all templates in this Scheme.

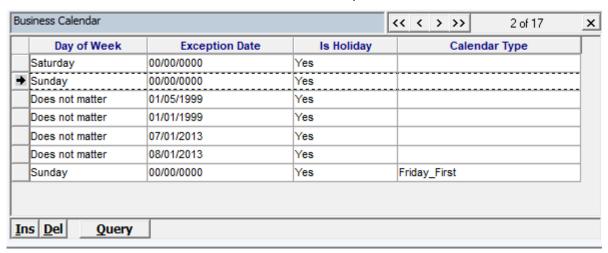
Example.

September 6 is specified in the financial institution's business calendar as a business day. If for any reason it is necessary to move the processing of due normalization transactions from September 6 to September 7, in the account template, specify a business calendar in which September 6th is not a business day. The corresponding due normalization transactions will be generated and processed on September 7. Other types of transactions will be processed according to the financial institution's business calendar.

Business calendars are created manually or are imported to Way4 by a pipe.

3.1 Manually Creating a Business Calendar

To fill in the business calendar, select the menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Business Calendar". The "Business Calendar" form will open.



Business calendar grid

The form's fields:

- Day of Week a weekday.
- Exception Date field for indicating the date in the DD/MM/YYYY format.
- Is Holiday specifies whether or not this day is a working day ("Yes"/"No").
- Calendar Type calendar type selected from a list. When this field is filled in, the corresponding date belongs to the selected business calendar.

If the field is not filled in, the corresponding setting for this date (or day of the week) belongs to the default business calendar. The default business calendar is used if a specific calendar type is not defined for the financial institution (or in the account template). If a specific calendar type is



specified for the financial institution (or in the account template), this default calendar setting is ignored.

It's important to note that if a date in a calendar is not defined as either a non-working or working day, by default it will be considered as a working day in this type of calendar (with the exception of cases when this day is a Saturday or Sunday, which are marked in this calendar as non-working days regardless of the date).

For example, in a "default" calendar (with an empty *Calendar Type* field), 1 January 2016 (Friday) is a holiday. In another calendar with the *Calendar Type* field filled in (for example, with the value "CALENDAR_2"), 1 January 2016 is not defined in the calendar (i.e. this day is not defined either as a non-working or working day and Fridays are not non-working days). For financial institution 003, Calendar Type = "CALENDAR_2" is specified. In this case, in all processes in financial institution 003, 1 January will be a working day.

To create a new record, click the [Ins] button and fill in the fields according to the following rules.

To configure the system to recognise a weekend day (such as Sunday), set the day in the *Day of Week* field, leave the *Exception Date* field set to 00/00/0000, and set the *Is Holiday* field to "Yes".

To configure the system to recognise a specific date as a non-working day (such as 1 January 2009), the grid should be filled in as follows. The *Day of Week* field should have the "Does not matter" value, the *Exception Date* field, the date 01/01/2009, and the *Is Holiday* field should contain the "Yes" value.

A weekend day that is a working day is set up in the same way (for example, Saturday, 3 January 2009 is a working day). In this case, the fields are filled in as follows: the *Day of Week* field should contain the value "Does not matter", the *Exception Date* field, 03/01/2009, and the *Is Holiday* field should read "No".



The *Day of Week* field cannot specify a certain day of the week when the *Exception Date* field indicates a certain day (for example, "Monday", "12/01/2009").

3.2 Using a Pipe to Import a Business Calendar

The Java pipe com.openwaygroup.pipe.business_calendar_import.jar is used to import a business calendar.

To run the Java pipe, select the user menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Business Calendar Import".

Business Calendar Import pipe parameters

Parameter	Default value	Req.	Parameter description
SOURCE_DIR	@INTERCHANGE_PATH@\c alendar\in	М	Incoming file directory into which the imported file should be put.



Parameter	Default value	Req.	Parameter description
PROCESSED_DIR	@INTERCHANGE_PATH@\c alendar\arch	M	Directory of files that have been successfully processed.
ERROR_DIR	@INTERCHANGE_PATH@\c alendar\err	M	Directory with files whose import failed.
CALENDAR_TYPE		0	Parameter in which the business calendar type can be specified. For example, "Holidays".

The following notation is used to indicate whether a field is mandatory:

- M the field is mandatory
- O the field is optional.

An imported file in CSV format is put into the SOURCE_DIR directory. This file's header corresponds to the mask "CALENDAR_*.csv".

The pipe makes it possible to import a business calendar with an Is Holiday attribute of "Yes".

When importing a business calendar, the following checks are made automatically:

- Imported dates (Exception Date) are set and their value is greater than the current banking date.
- There is no calendar with this type (Calendar Type) in the CALENDAR table.

3.2.1 Type of Imported Business Calendar

If the CALENDAR_TYPE parameter is not set, the calendar type is determined from the file name: the second element after the static identifier "CALENDAR" will be used as the calendar type. For example, if the file name is "CALENDAR_IamCalendarType_2020_01.csv", the string "IamCalendarType" will be considered to be the *Calendar Type* value. If import of calendars with different *Calendar Type* values is planned, it is recommended to determine the calendar type from the file name. If the pipe always imports the same calendar type, it is recommended to set this type in the CALENDAR_TYPE parameter. The value of the CALENDAR_TYPE pipe parameter has a higher priority than the value that is set in the file name. In addition, the pipe supports the ability to import business calendar dates without specifying *Calendar Type*. In this case, the file must have the name "CALENDAR_DEFAULT_2020_01.csv".

3.2.2 Examples of an Imported CSV File

The first line in the file lists entities being imported, and the values of these entities are specified in each subsequent line:



```
Date, Name, Year, Month, Day, Weekday, Types, IsObserved, Country, Locations, States 2021-01-01, "New Year's Day", 2011, 1, 1, Sat, National holiday, United States,, 2021-01-17, Martin Luther King Day, 2011, 1, 17, Mon, National holiday, United States,, 2021-02-14, "Valentine's Day", 2011, 2, 14, Mon, Observance, United States,, 2021-02-21, "Presidents' Day", 2011, 2, 21, Mon, National holiday, United States,
```

The "Name" and "Country" values are not processed and are reserved for forward compatibility.

Only Exception Date values can be imported by the pipe, and in this case, the imported file will appear as follows:

```
Date
2021-01-01
2021-01-17
2021-02-14
2021-02-21
```



4 "Message Channels" Dictionary

The "Message Channels" dictionary is used to define identifiers of logical routes (channels) in Way4. These identifiers serve to select rules for processing transaction information.



Note that changes to this dictionary can only be made after OpenWay's approval.

To access the dictionary, use the "Message Channels" form, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Message Channels".

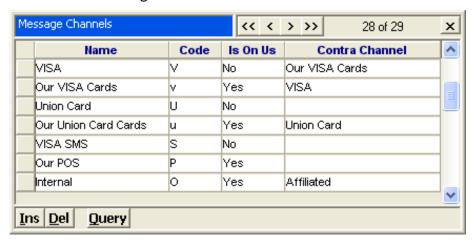


Figure 7. "Message Channels" Dictionary

Form fields:

- Name name of the logical route (channel)
- Code code of the logical route (channel)
- Is On Us one of the following values can be selected in this field:
- "Yes" the channel is used to interact with an internal subsystem of the Way4 system.
- "No" the channel is used to interact with an external system.
- "Affiliated" the channel is used to interact with an external system installed in a bank that has additional agreements with our bank. This channel type can be used to implement interaction between a sponsor bank and an affiliated bank.
- Contra Channel this field's value is used as the transaction counterparty's channel if it is impossible to determine the channel through standard routing mechanisms.

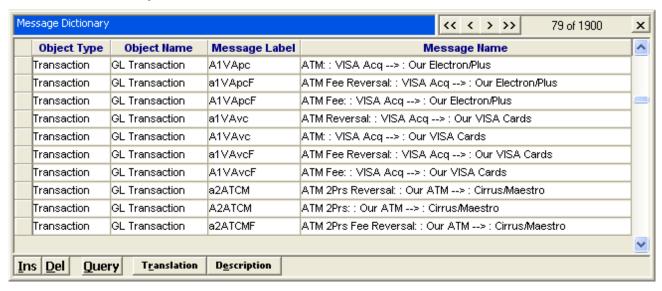


5 "Message Dictionary"

The "Message Dictionary" contains a list of Way4™ system objects with text equivalents of their names or text messages generated by the system when working with these objects. The dictionary's names, text messages and descriptions of them can be translated into local languages.

5.1 General Information

The "Message Dictionary" grid form, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Message Dictionary" is used by various Way4 modules and contains a significant number of records. Therefore, to open the dictionary it is recommended to use preliminary data retrieval (see the section "Preliminary Selection of Records according to Arbitrary Criteria" of the "DB Manager Administrator Manual"). For example, to open the list of transaction subtype codes, use the following selection criteria: *Object Type* = "Transaction" and *Object Name* = "GL Transaction".



"Message Dictionary" System Dictionary

The Message Label field contains a value of the record code in Message Dictionary, and the Message Name field contains its corresponding name or message text.

Way4 makes it possible to translate names or messages in the *Message Name* field into local languages registered in the corresponding system dictionary ("Full \rightarrow Configuration Setup \rightarrow Client Classifiers \rightarrow Languages", "Full \rightarrow Configuration Setup \rightarrow Languages and Localisation \rightarrow Languages", see the section "Languages" dictionary). For more information, see the section "Translation of names, messages".

The [Description] button is used to access a detailed description of the message in the *Message Name* field.



5.2 Translation of names, messages and descriptions

To translate the name, message text or the description of a message in the *Message Name* field into a local language, select the required row in the "Message Dictionary" grid form and click [Translation].

The form "Translation for <name>" will appear will open.



Grid form for translation into local languages

To add a translation of a name or message text, click the [Ins] button to add a row to the grid form, select the required language from the drop-down list in the *Language* field and in the *Message Name* field, enter the required text in the selected language.

To add the translation of a message description (detailed description of a message) in the *Message Name* field, click the [Msg Desc] button and add the translation in the *Description* field of the form that opens.



Note that in most cases the content of the *Message Name* field consists of separate segments, for example: <Transaction>::<Source Contract Type>-->:<Target Contract Type> or <Account Type><Service Class>, etc. Separate segments of messages, for example transaction type (Transaction) are also elements of the "Message Dictionary". Therefore, for messages with the parameter Object Type = "Transaction" it is possible to translate into a local language an entire separate message corresponding to a particular transaction, as well as a message segment as an element of the "Message Dictionary". If a separate segment of a message is translated into a local language, after the dictionary is refreshed, this translation will be used by the system for all messages with the parameter Object Type = "Transaction" containing this segment.

Message segments that are separate elements of the "Message Dictionary" include:

- Transaction type (Object Name = "Transaction")
- Contract type (Object Name = "Contract Type")
- Values of transaction type classifiers (Object Name = "Service Class")
- Account types (Object Name = "Account Type")
- Elements with the Object Name parameter with possible values: "Fee", "Fee Reversal", "Reversal", "Information", "Information Advice".



To search the "Message Dictionary" dictionary for separate message segments, use preliminary data retrieval (see the section "Entering and Editing Data" of the "DB Manager Administrator Manual") with the following criteria: Object Type = "Transaction", Object Name = "Transaction"/ "Contract Type"/ "Service Class"/ "Account Type"/ "Fee"/ "Fee Reversal"/ "Reversal"/ "Information"/ "Information Advice".

5.3 Updating the "Message Dictionary"



Note that registration of new transaction subtypes and new account types, as well as new translations of message names and texts (Message Name) into local languages requires the "Message Dictionary" system dictionary to be updated.

When the "Message Dictionary" is updated, transaction subtype uniqueness is checked in TRANS_TYPE table (*TransType Idt* and *RBS Code*) and if duplicates are found:

- The *TransType Idt* field's value is automatically corrected.

 If *TransType Idt* is not filled in, *the field* will be filled in automatically when the check is performed.
- For the *RBS Code* field, when a duplicate is found, the record is not updated and an error is logged to the process log ("Full → Process Log → Process Log").



Note that if changes were made in transaction subtype names, account type names, etc., the *Message Name* field in the MESS_DICT table is not automatically updated. For data consistency, either manually edit the *Message Name* field value in the dictionary, or delete the record with the obsolete name from the dictionary and start the update process. When deleting records from the dictionary, it is important to note that these records, for example, Contract Type, may be included in other records from the dictionary, for example, in entry descriptions according to transaction types. In this case, a number of entries may need to be deleted before starting the update process.

The "Message Dictionary" is updated using the menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Generate Message Dictionary".

During execution of this menu item, the screen will display the dialog window "Get Language Trans" used to select one of the languages registered in the system for which the dictionary should be updated.



When updating the "Message Dictionary" dictionary, specify an empty value, which corresponds to the system's main (English) language, in the *Language* field of the "Get Language Trans" dialog window; click the [Proceed] button and confirm execution of the update by clicking the [Yes] button in the "Confirm Execution" window. As a result, the dictionary will be refreshed in the system's main language.



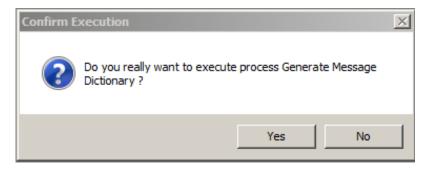


Dialog window for selecting the language in refreshing the "Message Dictionary"

To refresh the "Message Dictionary" in a local language, select the required language in the *Language* field of the "Get Language Trans" dialog window.

After selecting the required language, using the "Yes" or "No" values, specify in the *Override* translations field whether existing translations of names (Message Name) will be updated in the specified language, click the [Proceed] button and confirm execution of the update by clicking the [Yes] button in the "Confirm Execution" window.

After updating the "Message Dictionary" dictionary in the local language, an entry for this language will be created for every element of the dictionary in the "Translation for <name>" grid form (see the figure in the section "Translation of names, messages and descriptions"), with the Message Name field value in the main language if no translation for message segments exists. If a translation into a local language exists for message segments and the "Yes" value is specified in the Override translations field of the "Get Language Trans" dialog window, the corresponding translations will be used by the system when refreshing all records in that language. When the value of the Override translations field of the "Get Language Trans" dialog window is "No", records will be created in the local language (using existing translations of message segments) only for those elements of the "Message Dictionary" for which these records were absent.



Confirmation request for update of "Message Dictionary" dictionary



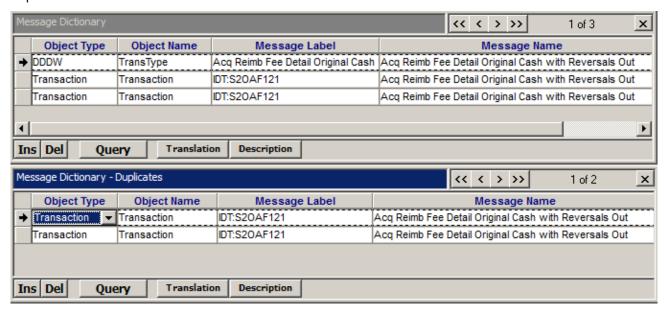


Note that the system stores records with translations into local languages in the same database as "Message Dictionary" records in the system's main language (English). This means that the form editor (see the "Form Editor" document) can be used with this form to create a special form that will show only those records containing a translation into the corresponding language.

5.4 Excluding Duplicate Records from the "Message Dictionary"

The "Message Dictionary – Duplicates" form, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Message Dictionary – Duplicates" is used to search for duplicate records with the same values in the Object Type, Object Name, Message Label, and Language fields of the "Message Dictionary".

If there are duplicates in the "Message Dictionary", they are shown in the "Message Dictionary – Duplicates" form.



Duplicate records in the "Message Dictionary"

To avoid incorrect system behavior, it is recommended to delete duplicate records. The activity is performed with the [Del] button in the "Message Dictionary – Duplicates" form.

5.5 Deleting Incorrect GL Transaction Records

If a transaction type for which records were already created in the "Message Dictionary" changes (for example when the transaction type's *RBS Code* or *RBS Rev Code* fields change) or is deleted, delete the corresponding records in the "Message Dictionary" so that the transaction will be shown correctly in Way4. One of the following menu items can be used to do so:



- "Full → Configuration Setup → Main Tables → GL Transaction Message Dictionary Synchronize"
- "Full → Configuration Setup → Transaction Types → GL Transaction Message Dictionary Synchronize"

These menu items open the "Confirm - Delete" form. Select a record in the form's Delete Records field:

- "No" records are only checked. Incorrect records are not deleted. The check's results can be viewed in the process log.
- "Yes" records are checked, and incorrect records are deleted. The results of the process can be viewed in the process log.
- During the check, a search is made for the corresponding record in the list of transaction types (by the *RBS Code* or *RBS Rev Code* field). If no record in the list of transaction types was found for the record from the "Message Dictionary" and "deletion mode" is used, the record in the "Message Dictionary" gets the value "C" in the AMND_STATE field and the "deletion" date is specified in the AMND_DATE field.



"Confirm – Delete" form



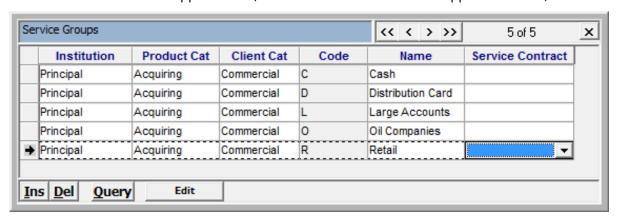
6 "Service Groups" Dictionary

Service Groups is an additional client and contract classifier. For example, according to additional classification, VIP clients can be distinguished as a separate group.

Service Groups can be used when configuring various filters for viewing data or generating reports. In particular, a Service Group can be set on the local constants level for filtering data available to users when working in DB Manager forms (Full \rightarrow DB Administrator Utilities \rightarrow Users & Grants \rightarrow User Groups and Users – View \rightarrow [Constants]"). For more information see the section "Initialising Local Constants" of the document "DB Manager User Management".

Service Groups are configured in the "Service Groups" form, menu item "Full \rightarrow DB Administrator Utilities \rightarrow Users & Grants \rightarrow Service Groups".

Clients and contracts are marked using configured Service Groups, for example, when registering clients and contracts with applications (see the document "Advanced Applications R2").



"Service Groups" dictionary

To create a new Service Group, click the [Ins] button and fill in the fields of the new record.

The form contains the following fields:

- Institution financial institution for which this Service Group will be available.
- Product Cat Product category:
- "Issuing" issuing contract Products.
- "Acquiring" acquiring contract Products.
- "Accounting" bank system contract Products. This value is left for backward compatibility.
- "Bank Accounting" bank contract Products.
- Client Cat client type ("Private" individual, "Commercial" legal entity, "Accountant" bank department).
- Code Service Group code. After filling in the Code field, this field becomes unavailable for editing in the "Service Groups" form. See the note below.
- Name name of Service Group.



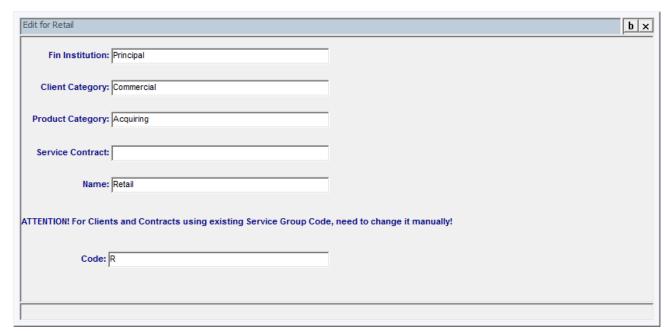
 Service Contract – Service contract. A Service contract is selected from a list of contracts registered in WAY4 and can be used, for example, to receive notifications for ATM status messages.



A client or contract is linked with the Service Group assigned to it through the Service Group code (the group code is entered in the Service Group field of the client or contract form). If the group code is changed in the the "Service Groups" form after the Service Group is assigned, links to this Service Group from the properties of the corresponding clients and contracts will be broken. After entering the Service Group code, the Code field closes for editing in the "Service Groups" form in order to avoid accidental changes in the value of this field.

If it is necessary to change the Service Group code, do as follows:

- Click the [Edit] button in the "Service Groups" form. The "Edit for <name of Service Group>" form will open, in which the *Code* field will be editable.
- If changes are made to a Service Group code that is already assigned to clients and contracts, the Service Group code must be manually synchronised in the "Service Groups" form and in the properties of the corresponding clients and contracts.



"Edit for <name of Service Group>" form



In the "Edit for <name of Service Group>" form, a warning is displayed that is necessary to synchronise the changed Service Group code and client and contract properties: "ATTENTION! For Clients and Contracts using existing Service group Code, need to update it manually!".



7 Payment System Product Dictionary

This dictionary is used to manage public names of payment system card products and a number of their parameters used, for example, when generating payment system statistic reports.

The dictionary is opened with the user menu item "Full \rightarrow Configuration Setup \rightarrow Routing \rightarrow IPS Product Definition".



"IPS Product Definition" dictionary

The form contains the following fields:

- Payment System payment system name.
- · Product Idt:
- For Mastercard the identifier defining the payment system product in the Mastercard clearing center (GCMS (Global Clearing Management System) Product Identifier).

For Mastercard, there may be several records with the same value in the *Product Idt* field. These records differ by the value in the *Licensed Product Idt* field (the value of the *Product Name* field for these records may be the same or differ).

- For Visa the identifier of the product in Visa.
- Product Name name of the card product in the payment system.
- Card Brand three-character identifier indicating the payment system product programme, for example, "DMC" – Mastercard Debit. For Mastercard, the value of this field corresponds to the Brand field of the "BIN Table" form. For Visa, the value "VISA" or "PLUS" is specified in this field.
- Licensed Product Idt identifier of the product in Mastercard. For other payment systems, the value in this field duplicates the value of the Product Idt field.
- Product Class field reserved for future use.
- Product Type Idt field reserved for future use.



The bank's own products are marked by a generalised product with the value "Internal" in the *Payment Scheme* field and the value "Private Label" in the *Name* field.

Public names of card products and their parameters are defined in the following cases:



- When card contract subtypes are marked with payment system products. Marking may be performed as follows:
- When the menu item "Contract Types Validation" (Full → Configuration Setup → Contract Types →
 Contract Types Validation) is executed. All "on-us" card product subtypes are marked (for
 example, "one-time" marking after data are loaded into the BIN table). Only active subtypes are
 checked (with the "Yes" value in the *Is Active* field).
- When the [Validate] button is clicked in the card contract type form (Full → Configuration Setup →
 Contract Types → Card Contract Types). In this case, all subordinate subtypes are marked.
- When the [Validate] button is clicked in the contract subtype form (Full → Configuration Setup →
 Contract Types → Card Contract Types → [Sub Types]). In this case, a specific contract subtype is
 marked (for example, when a new subtype is added).
 - A search is made for a record in the BIN table corresponding to this subtype. The search is made by the *Sub BIN* field and the card range (*Start BIN*, *End BIN* fields). When the corresponding record is found:
- In the contract subtype's *BIN Record* field, the values of the following fields from the "BIN Table" form are specified in the following format: *Sub Bin* field value>:*Product ID* field value, i.e. IPS product name>:*Usage* field value>.
- The *IPS Product* field of the contract subtype is filled in with the value of the *Product Name* field from the "IPS Product Definition" form.



For Mastercard, this field is filled in with the value of the *Product Name* field of the record for which the values of the *Licensed Product Idt* field in the IPS_PRODUCT table and *Licensed Product Idt* field in the BIN_TABLE table match.

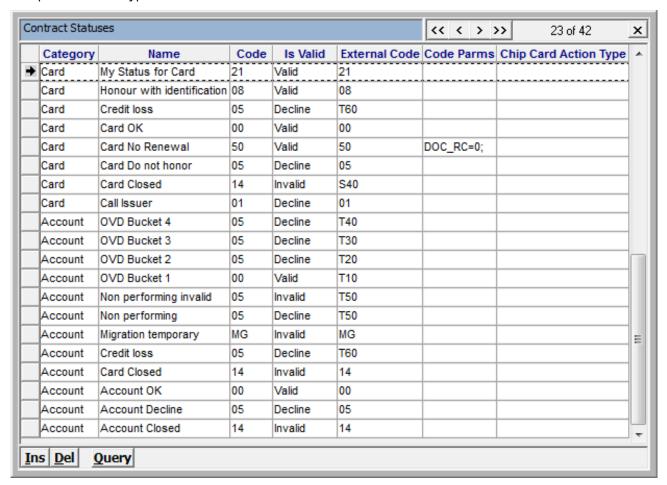
For more information, see the document "Products and Contract Subtypes".

- When processing (Acceptance) a document to fill in the BIN_RECORD field in the DOC table (or *Card Bin* field in the "Primary Doc Full" form):
- When processing a document for on-us cards, the contract sub-type's *BIN Record* field value is specified in this field.
- When processing a document for foreign cards, the reference to the BIN table row according to routing settings is specified in this field (the identifier of the record in the BIN table is specified).



8 Contract Statuses

Contract statuses are registered in the "Contract Statuses" form, menu item "Full \rightarrow Configuration Setup \rightarrow Contract Types \rightarrow Contract Statuses".



List of contract statuses

Form fields:

- Category specifies the contract categories for which this status can be used (Card, Account, Device).
- Name status name.
- Code code of the status in Way4. Used during authorization (determines the response code that will be sent in response to an authorization request).
- Is Valid this field can have the following values:
- "Valid" authorizations, financial document posting and card issuing is permitted.
- "Decline" authorizations are prohibited, financial document posting and card issuing are permitted.
- "Invalid" –authorizations, financial document posting and card issuing are prohibited. However, operations like interest accrual, due normalization, etc. are performed.





Note that the "Invalid" status set in the top contract does not apply to the entire contract tree. When posting a financial document, only the status of the contract for which this document is being posted is considered. The status of the top contract is not considered.

This indicator can be used, for example, to set rules for changing a contract status according to an Event (if the FROM_VALID tag is set in the Event type, the contract will be transferred to the status set in the *New Status* field of the Event type only for a contract in a status with the "Valid" indicator).

- External Code contract status code received from an external system. For example, when a status changes according to an imported application. The External Code code must be unique in the specific contract category.
- Code Parms additional parameters are specified in this field as tags:
- PR=<priority value> specifies the priority of the status. The priority's value is set in numeric format (0, 1, etc.) with a higher value indicating a higher priority. This parameter is used, for example, when changing a contract status using an Event (see the description of the NOT_BETTER tag in section "Tags used when working with Events" of the "Setup Tags" document).

If the PR tag is not set for the status:

- If the PR tag is not set, and the *Is Valid* field contains the "Valid" value, the status priority is equivalent to "0".
- If the Is Valid field contains any other value, the status priority is equivalent to "1".
- CLOSE_ACNT when a status with this parameter is specified, the contract closes (the closing date of the contract will be equal to the current banking date). After the contract has been closed ("Is_Ready=Closed") no operations are performed with this contract's account.
- CARD_MRK_EN=Y by default, it is not permitted in Way4 to mark cards for reissue in any status other than "Card Ok". The CARD_MRK_EN parameter with the "Y" value set in contract status properties allows a card with this status ("Card Ok") to be marked. For example, it may be necessary to reissue a card that has been temporarily locked (when the card status is "Call Issuer").
- The DOC_RC=<response code>; tag specifies the response code sent when posting documents for a contract. Usually, the DOC_RC=0; tag is used. A tag with this value is used so that contract status does not affect document posting when card status is "Card No Renewal" (so that in this status a financial document for a contract is not rejected).
- Chip Card Action Type action that must be executed with a Smart card when a contract is assigned the corresponding status. When processing an online request for a card with this status, a script for executing the specified action will be generated and sent to the card.



9 "System Instances" Dictionary

The "System Instances" dictionary is used to register systems belonging to the bank's general infrastructure, in particular:

• Way4 test system(s)

Systems defined as test systems for the following modules: "Way4™ Product Inspector" (see the document "Way4™ Product Inspector Module"), "WAY4 Real-Time Risk Management" module, recalculating usage limiters (see the document "Risk Monitoring"), "WAY4 Datamart (see the document "Configuring WAY4 for Transferring Data to Datamart"). These modules are supplied according to an additional agreement with OpenWay.

Test systems for these modules are registered in the simplified form "System Instances – Simple" (Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow System Instances – Simple).



If a system is registered as a test system in the "System Instances – Simple" list, a number of procedures and scenarios can be executed for it that cannot be executed in a production system. For example, recalculation of usage limiters when testing limiter settings can only be executed in a test system (see the document "Risk Monitoring").

If a system is not registered in the "System Instances – Simple" list, it is considered a production system by default.

Instances (nodes) of the Way4 production system, for example, in setup of "High Availability Cluster" and "High Availability Switch" configurations (see the documents "HA Switch", "Way4™ HA Cluster"). These solutions are supplied according to an additional agreement with OpenWay. Production system nodes are registered in a specialised menu supplied according to a separate agreement. These settings are described in documentation for the corresponding solutions.

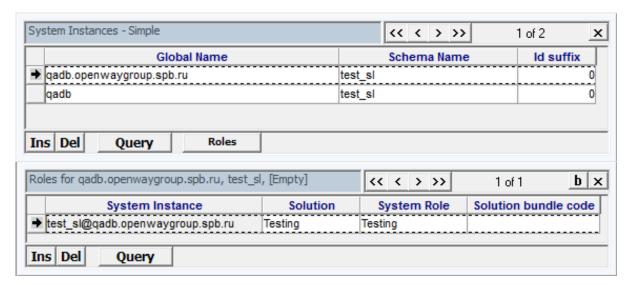


This section describes registration of test systems.

To register a Way4 test system, do as follows:

Select the user menu item "Full → Configuration Setup → Main Tables → System Instances –
Simple". The "System Instances – Simple" form will open.





Registering a Way4 test system

Fill in the following fields in the "System Instances – Simple" form:

• Global Name – schema instance name. Use the following query to get information about the schema instance name:

Select lower(global_name) from global_name

- Schema Name schema owner name (Oracle Owner); the value must be specified in lower-case letters.
- Do not fill in the Id suffix field.
- Click the [Roles] button in the "System Instances" form. In the "Roles for <... >" form that opens, add a new record and fill in the fields. Specify the "Testing" value in the Solution and System Role fields.

The Solution field and the System Role field that depends on it contain other values, used in particular when registering production system nodes. After registration in a specialised menu, these nodes are shown in the "System Instances – Simple" form. Possible values for the Solution field:

- "Configuration" configuration replication system (this value is reserved for future use).
- "Data Split" production system with several equal processing nodes (this value is reserved for future use).
- "Data Warehouse" Way4 Datamart system (this value is reserved for future use).
- "HA Cluster" Way4 production system topology. Way4's high availability is ensured by the use of two and more system instances (nodes) able to process critical operations. For more information, see the document "Way4™ HA Cluster". The solution is supplied according to a separate agreement with OpenWay.
- "HA Switch" Way4 production system topology. WAY4's high availability is ensured by the use of two and more system instances (nodes) able to process online operations. For more information, see the document "HA Switch". The solution is supplied according to a separate agreement with OpenWay.



- "Stand-In" production system topology with two nodes (for more information, see the document "Way4 Stand-in").
- "Remote Portal" value reserved for future use.

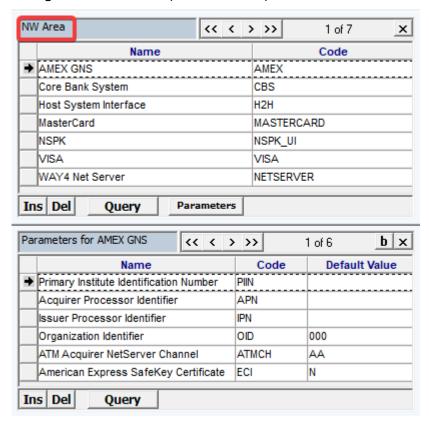
"Remote Testing" – value reserved for future use.



10 "NW Groups" Dictionary

The "NW Groups" dictionary is used to determine rules for a Way4 member to interact with other systems, for example bank (Core Bank System) and payment systems (AMEX GNS, Visa, Mastercard). The list of systems (NW_AREA) and sets of parameters specific for interacting with each payment system (the NW_PARM table) are predefined and cannot be edited.

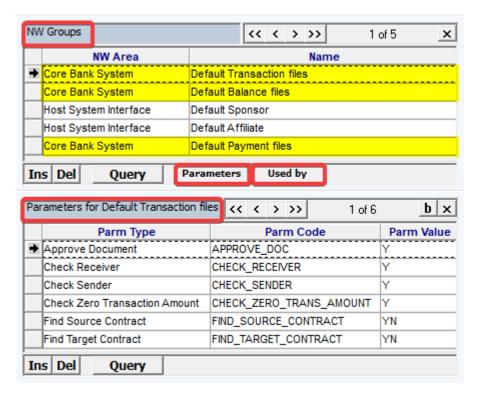
The figure shows an example of a sets of parameters for interaction with the AMEX payment system:



Set of parameters for interacting with AMEX

One member may interact with different systems and have different sets of parameters. Sets of parameters for the interaction of a certain member are created in the "NW Groups" dictionary, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow NW Groups". Parameters can be grouped by any formal characteristic. For example, for "Core Bank System" parameters can be grouped by a file type imported from CBS:





A set of parameters for the "Core Bank System" group

The "NW Groups" form is also used to register a group of parameters to check and process document used in postload processing; for more information, see the section "Configuring FPLP Parameters" of the document "File Postload Processing".

The "NW Groups" form's fields:

- NW Area systems with which the member interacts. The value is selected from a predefined list.
- Name name of group of parameters for interacting with the system. The value is entered manually.

The [Parameters] is used to open the "Parameters for <parameters group name>" form to configure system parameters. Form fields:

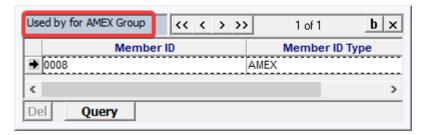
- Parm Type parameter name/type; selected from a predefined list of parameters set for this area.
- Parm Code parameter code; filled in automatically when selecting a parameter type.
- Parm Value parameter value; set manually.



When a parameter type is selected, the *Parm Value* field is filled in automatically if the default value is specified for this parameter type. Possible parameters for an area and their default values are set up by a system administrator in the "Parameters for <area>" form that is opened from the "NW Area" form.

The [Used By] button is used to open the "Used by for <group name>" form for access to the list of members who use this set of parameters:





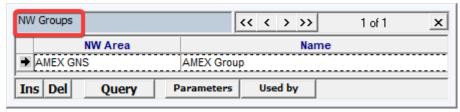
Member using the "AMEX Group" parameter group for interaction with AMEX GNS

Form fields:

- Member ID identifier of the financial institution.
- Member ID Type system code (value of the Code field in the "NW Area" form).

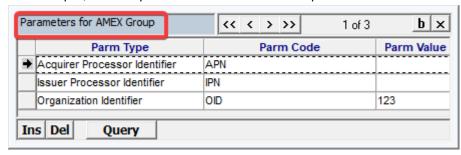
To generate a list of member parameters, do as follows:

Add a new record in the "NW Groups" form by clicking the [Ins] button and register a group for interaction with the system (Full → Configuration Setup → Main Tables → NW Groups → [Ins]), for example:



- 2. Generate a list of group parameters in the "Parameters for <group name>" form (Full → Configuration Setup → Main Tables → NW Groups → [Parameters]). To add a record, click the [Ins] button and fill in the following fields:
 - Select the parameter in the Parm Type field.
 - The code of the parameter in the *Parm Code* field and the default value of the parameter in the *Parm Value* field are generated automatically.
 - Set the value of the parameter in the Parm Value field.

For example, a set of parameters for "AMEX Group":



Parameters from the list predefined for interaction with this payment system can be included in the group.



- 3. In the "Bank Acquiring Parameters" form, define the system for which rules for the member's interaction are being set up (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters):
 - · Use the [Ins] button to create a new record.
 - Specify the financial institution's identifier in the Acq ID field.
 - Specify an interface type for the member in the *Member ID Type* field. In this example, the AMEX GNS payment system:



For a detailed description of the form, see the section "Bank Acquiring Parameters" Dictionary.

- 4. In the "Parm Groups for Bank Acquiring Parameters" form, assign a group of parameters of the selected system to the member (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters → [Parm Groups]):
 - In the NW Area field, specify the same system as in the Member ID Type field of the "Bank Acquiring Parameters" form.
 - In the NW Group field, select the required group of parameters.

The figure shows an example of the "AMEX Group" parameter group specifying the member's interaction with AMEX GNS:

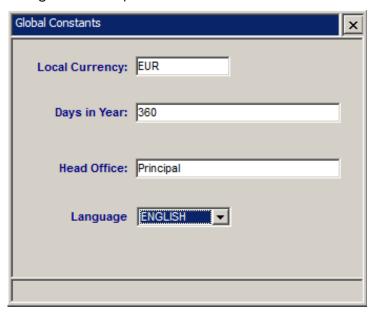


5. Check settings by clicking the [Check] button in the "Bank Acquiring Parameters" form.



11 "Global Constants" Dictionary

The "Global Constants" dictionary is used to register global constants used in WAY4, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Global Constants".



Values of global constants

The "Global Constants" form specifies the following global constants:

- Local Currency local currency, used when setting up a financial institution.
- Days in Year number of days in a year. Used when calculating interest (see the section "Number of Days in a Year" of the document "Interest Accrual").
- Head Office head financial institution. Used when defining options for entering currency rates (see the section "Set FX rates" of the document "Daily Procedures") and for setting up interbranch routing (see the section "Interbranch Transactions" of the document "Financial Institutions"), etc.
- Language language. Use when setting up software messages, generating reports, configuring client messages, etc. The value is selected from the list generated in the "Languages" table (see the section ""Languages" dictionary").

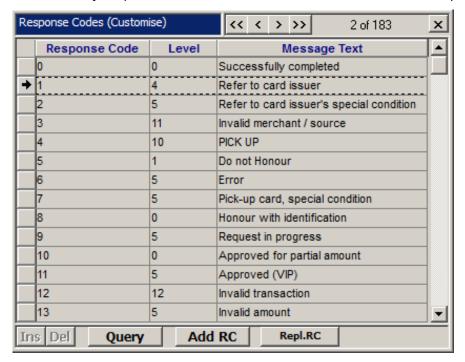
The values of global constants can be redefined for a user or user group in the "Constants for <user name/user group name>" form. To open this form, click on the [Constants] button in the "User Groups and Users – View" form ("Full \rightarrow DB Administrator Utilities \rightarrow Users & Grants \rightarrow User Groups and Users – View") (see the section "Initialising Local Constants" of the document "DB Manager User Management").



12 Redefining System Response Codes

The "Response Codes Customise" dictionary makes it possible to redefine system response codes for authorization requests if this is a business requirement, for example to redefine response codes according to payment system requirements.

The dictionary is opened with the menu item "Full \rightarrow Main Tables \rightarrow Response Code (Customise)".



List of predefined system response codes

Form fields:

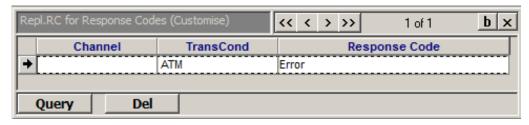
- Response Codes system response code when processing a transaction.
- Level response code importance level. Messages with level "0" correspond to successfully processed requests. Messages with level ">0" are either warnings or error messages. The higher the level, the more critical the error.
- Message Text text description of the response code.

To redefine a system response code:

- 1. Select the code to be replaced.
- 2. Use the [Repl.RC] button to open the "Repl.RC for Response Codes (Customise)" form.
- 3. Use the [Add RC] button in the "Response Codes (Customise)" form to add a new row in the "Repl.RC for Response Codes (Customise)" form.
- 4. In the *Channel* field, select the channel for processing transaction information. If no value is defined in this field, the rule will be applied for all channels registered in Way4 (see the section "Message Channels" Dictionary").
- 5. Select a transaction condition in the *TransCond* field.



6. Select the code for redefinition in the Response Code field.



Redefining the response code for Response Code="1"



13 "Currency Table" Dictionary

The "Currency Table" dictionary is used to register currencies, menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Currency Table". For more information, see the section "Currency Table" of the document "Currency Conversion".



14 "Bank Acquiring Parameters" Dictionary

The "Bank Acquiring Parameters" dictionary is used to set parameters for interaction between banks participating in settlements with payment systems, in particular:

- Parameters of the financial institution interacting with the payment system during issuing or acquiring, including a financial institution acting as a sponsor bank.
- Parameters of the affiliated bank's interaction with a sponsor bank, including Host-to-Host interaction.
- Parameters of the sponsor bank's interaction with an affiliated bank, including Host-to-Host interaction.

The form is also used to set parameters of file exchange (including clearing) in the process of interaction with bank and payment systems.

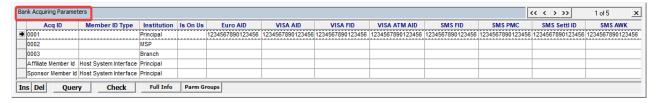
The form is accessed using the menu item "Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Bank Acquiring Parameters".



This section describes the procedure for registering interaction parameters of banks. To get additional information, see the following documents (depending on the configured functionality):

- "Acquiring Module", section "Defining Acquirer Parameters".
- "Processing Transactions in the Way4 Acquiring Module", section "Support of non-unique device identifiers".
- "Financial Institutions in Way4", sections "Interaction between Affiliated Banks and a Sponsor Bank" and "Configuring File Exchange in Bank and Payment Systems".
- "Host-to-Host Interchange Interface Setup", section "Setting parameters for interchange between affiliated banks and payment systems".
- Documents with the description of the corresponding bank/payment system.

Multiple records that determine a financial institution's interactions with various bank and payment networks can be set up.



"Bank Acquiring Parameters" form

To set up interaction parameters, do as follows in the "Bank Acquiring Parameters" form:

1. Add a new record by clicking the [Ins] button and fill in the fields:



- Acq ID member's identifier. In this field, specify an identifier of the financial institution that interacts with the payment system, sponsor bank or affiliated bank. If settings are made for:
 - A financial institution that directly interacts with the payment system (including a sponsor bank) identifier that was assigned by the payment system. Generally, the value matches a value in the *Our Member ID* field from the "Interchange Routing" table (Full → Configuration Setup → Routing → BIN Groups → [Routing]).
 - An affiliated bank an internal identifier assigned to the bank for interaction with the sponsor bank. The value matches a value in the *Member ID* field that is specified in the BIN table for the affiliated bank's records – for more information, see the section "Registering card number ranges (BIN table) for affiliated banks" of the document "Ho st-to-Host Interchange Interface Setup".
- In the *Member ID Type* field, select an interface type for the member whose identifier is specified in the *Acq ID* field, for example, value "Host System Interface" or "AMEX GNS", etc.). This field is also used to determine file exchange parameters in the clearing process.



The *Member ID Type* field's values "Visa" and "Mastercard" are reserved for future use.

A group of parameters for file exchange in the specified system (corresponding to the type in the *Member ID Type* field) is selected in the "Parm Groups for Bank Aquiring Parameters" form that is opened by clicking the [Parm Groups] button – for more information, see below.

- In the *Institution* field, select a member from the list of financial institutions registered in the system.
- Is On Us drop-down list:
 - "Yes" member's devices (*Acq ID*) are registered in Way4 (a search for the corresponding contracts is made in the financial institution specified in the *Institution* field).
 - "No" no information on devices (*Acq ID*) with which a host-to-host interface is set up is found in Way4.
- Fields VISA AID, VISA FID, VISA ATM AID, SMS FID, SMS PMC, SMS Settl ID, and SMS AWK are filled in according to the identifiers assigned to the financial institution by payment systems. The fields are filled in as follows:
 - VISA_AID, VISA_FID generally values matches the value in the Our Member ID field from the "Interchange Routing" table (Full → Configuration Setup → Routing → BIN Groups → [Routing]). The field length is six digits.
 - VISA ATM AID, SMS_FID, SMS_PMC, SMS_SETTL_ID the field length is six digits.
 - SMS AWK the field length is sixteen digits.





The Euro AID field (value length is six digits) is left for backward compatibility.

Parameters of online interaction with other payment systems can be set up using various tags specified in the *Additional Parms* field of the "Full Info for Bank Acquiring Parameters" form (Full → Configuration Setup → Main Tables → Bank Acquiring Parameters → [Full Info]).

2. Check the configured parameters using the [Check] button in the form.



For correct processing of bank transactions that are not registered in the "Bank Acquiring Parameters" form, determine a set of parameters that in this case will be used by default. To do so, add a record with the "default" value in the *Acq ID* field.

The [Parm Groups] button is used to access the "Parm Groups for Bank Acquiring Parameters" form. The form is used to configure a group of parameters for the selected system of interaction (including for file exchange) between members (Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Bank Acquiring Parameters \rightarrow [Parm Groups]):



"Parm Groups for Bank Acquiring Parameters" form



A set of parameters is configured in the "NW Groups" form (Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow NW Groups); for more information, see the section ""NW Groups" Dictionary.

To add a record, click the [Ins] button and fill in the following fields:

• NW Area – drop-down list of systems in which the member operates (AMEX GNS, Host System Interface, etc.). A selected system must correspond to the interface type specified in the "Bank Acquiring Parameters" form (Member ID Type field).



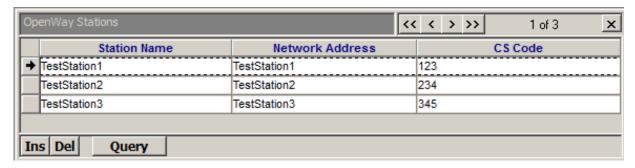
Systems are set up by a system administrator in the "NW Area" form.

• NW Group – drop-down list of parameter sets for a specific member operating in a specific system. To view parameter sets, click the [Parm Group] button.



15 Setting Workstation Numbers for Interaction with NetServer or Transaction Switch

When performing operations like voice authorization, ATM management, etc., a workstation number is used to ensure interaction with NetServer or Transaction Switch. Workstation numbers are set up, viewed and edited in the "OpenWay Stations" form, menu item "Full \rightarrow Configuration Setup \rightarrow Merchant Device Setup \rightarrow OpenWay Stations".



Form for setting up workstation numbers

It is necessary to specify the following values in the fields of this form:

- Station Name name of the user's workstation (it is permissible to specify the value corresponding to the value of the NetWork Address field).
- NetWork Address the workstation's network name, used by the system.
- CS Code a unique three-digit workstation code.



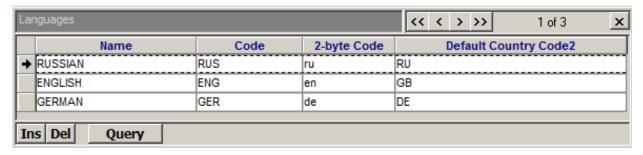
For the changes to come into effect, restart the application (DBManager or W4Manager).



16 "Languages" dictionary

The "Languages" dictionary contains a list of languages that can be used in Way4, for example, when setting up "Message Dictionary" (see the section "Message Dictionary"), global constants (see the section "Global Constants" Dictionary"), and local constants for users/user groups (see the section "Initialising Local Constants" of the document "DB Manager User Management").

The list is opened using the menu item "Full \rightarrow Configuration Setup \rightarrow Languages and Localisation \rightarrow Languages".



"Languages" dictionary

Form fields:

- Name language name.
- Code code of the language used in Way4.
- 2-byte Code two-letter language code; the field's value must comply with the ISO 639-1 international standard for language codes.
- Default Country Code2 two-letter country code; the field's value must comply with the ISO 3166-1 alpha-2 international standard for country codes.

For an example of language setup for reports, see the section "Local Language Support in Report Generation" of the document "Generating Reports in Way4TM".



17 "Address Types" Dictionary

The "Address Types" dictionary contains a list of address types. Address types make it possible to classify addresses depending on their purpose. For example, an address may be used for delivering statements, or when printing PIN mailers. In addition, conditions set for each address type determine rules for generating client and contract address information and rules to search for a relevant client/contract address.

The dictionary is opened with the menu item "Full \rightarrow Configuration Setup \rightarrow Client Classifiers \rightarrow Address Types", see Figure 29.

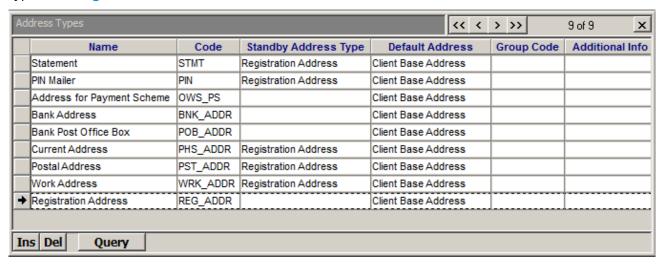


Figure 29. "Address Types" dictionary

The form contains the following fields:

- Name address type name.
- Code address type code used in WAY4.
- Standby Address Type address type for which a search for an active address is made, if an active address of the type specified in the *Name* field is found neither for the client record, nor in the client contract tree.
- Default Address rule to search for an address of the specified type:
- "Client Base Address" the address registered in the client record (in the Client table) is used.
- "Contract Address Only" a search for an active address is only made for the contract.
- "Current Contract Address Only" only the current contract's address is used. If there are no addresses registered for the current contract, there will be no further address search.
- "Branch Address" if an active address of this type is found for neither the client record or in the client contract tree, an address of this type, set for the bank branch, will be used.
- None a hierarchical search is made for an active address of this type along the contract tree to the higher-ranking contract.

The value of the *Default Address* field can be redefined using the DEFAULT_ADDRESS tag for a financial institution (in the *Special Parms* field of the form for the financial institution, menu item"



Full \rightarrow Configuration Setup \rightarrow Main Tables \rightarrow Financial Institutions \rightarrow [Details]"). The DEFAULT_ADDRESS tag may have the following values:

- "N" do not use a default address.
- "Y" use the default address from the client's record (from the Client table).
- "B" use the default address for the bank branch.
- "C" a search for an active address is only made for the contract.
- "R" a search of an active address is made only for the current contract.
- Group Code rule for generating address information for field groups (either in the CLIENT table, or in the CLIENT_ADDRESS table).
- By default (the *Group Code* field is not filled in) one of the fields from the *Address_Line* group must be filled in, or *Email*, or *Add_Info*.
- "Contract Data" one of the fields from the *Phone* or *Email* group must be filled in.
- "Custom Check" address information is not mandatory for client records or client contracts.
- "Email" Email must be specified.
- "Postal Address" one of the fields form the Address Line group must be filled in.
- Additional Info additional information.

17.1 Address Search

If the "Base Address" field group for a client record in the "Client" table is not filled in, addresses set for the client or contract are stored in the "Client addresses" table and linked with either a client record or client contract.

A search for an address of the corresponding type is made in the CLIENT table and the CLIENT_ADDRESS table.

The search is made for an active address of the required type (ADDRESS_TYPE field in the CLIENT_ADDRESS table) for the contract (for example, for which an Event is opened). If an address for the contract is not found, the value of the *Default Addresses* field of the "Address Types" dictionary is checked for this address type (USE_CLIENT_DEFAULT field in the ADDRESS_TYPE table). If the *Default Addresses* field has the value:

- "Client Base Address" the address is searched for in the client record (CLIENT table).
- "Contract Address Only" a search for an active address is only made for the contract.
- None a hierarchical search is made along the contract tree down to the "root".

In each level, the presence of an address of the requested type for the contract is checked, and depending on the value of the *Default Addresses* field, for this contract's client. If an address is still not found at the "root" level, depending on the value of the *Default Addresses* field, the search can be continued in the "Liability" tree according to the same algorithm.

If an active address is found in the CLIENT_ADDRESS table, but a different address type is set in the *Use Addr* field of the found record (COPY_TO_ADDRESS field of the "Client address" table), a search is made for a new address of the specified type according to the same algorithm.



If an address is not found, a search for an active address is made for the address type specified in the *Standby Address Type* field of the "Address types" dictionary according to the same algorithm.



In the current implementation, the list of a client's addresses does not include the address that is specified in the client's record (address information from the CLIENT table). If for some reason, the address from the client record must be used, set the value of the USE_CL_BASE_ADDR global parameter to "Y".

17.2 Address Transliteration Rules

WAY4 supports transliteration of addresses into English.

Information specified in the FIRST_NAM, LAST_NAM, CITY, MUNICIPALITY_CODE, STATE, ADDRESS_LINE_1, ADDRESS_LINE_2, ADDRESS_LINE_3, and ADDRESS_LINE_4 fields of a client or contract record is transliterated.

The following affects transliteration rules:

- Client or contract language; set in the *Language* field when registering the client or contract (*Language* field of the CLIENT_ADDRESSES table).
- Language specified in the system's global settings ("Full → Configuration Setup → Main Tables →
 Global Constants").
- A system user's language is set in the Language field of the "Constants for <user group name>"
 form that is opened by clicking the [Constants] button in the "User Groups and Users View" form,
 menu item "Full → DB Administrator Utilities → Users & Grants → User Groups and Users View".
- Values of the USE_CL_BASE_ADDR and USE_SYSTEM_ADDR_LANG global parameters.

Transliteration rules:

The language of an address is determined from the table with address information for a client and the client's contracts (value of the *Language* field in the CLIENT_ADDRESSES table).

If no language is specified for a client or contract, the language of the address will be the one that is specified in the system's global parameters.

If the language of an address differs from the user's language and is not English, it is transliterated. If the language of the address and user are the same, there is no transliteration. If the language of the address or the user's language cannot be determined, there is no transliteration.

If for some reason it's necessary to use the address (and address language) from the client's record (from the CLIENT table), the following settings are required:

- 1. The USE_CL_BASE_ADDR global parameter value must be "Y".
- 2. The USE_SYSTEM_ADDR_LANG global parameter value must be "N".
- 3. The "Address_Type" dictionary must contain a rule to search for an address of the specified type using the address that is registered in the client's record (for addresses of the corresponding type, the value of the *Default Address* field in the "Address_Type" dictionary must be "Client Base Address").



If the address in a client's record is not English, the address is transliterated. If an address is not specified in the client's record, the system language is considered to be the language of the address.



18 Additional Settings for Merchant Service Workbench

Merchant Service Workbench (MSW) is a solution that provides access to Way4 Cards through a web client.

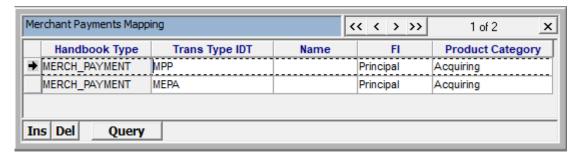


MSW is delivered to OpenWay clients through acquired software licenses.

To show total payments to a merchant in MSW if reimbursement for retail transactions is credited to a contract in Way4, configure the "Merchant Payments Mapping" dictionary, menu item "Full → Products → Acquiring Products → Merchant Payments Mapping".

In configurations where payments to merchants are made to accounts which are managed outside Way4, setup of this handbook is not mandatory but is recommended.

This dictionary is configured so that technical documents (for example, technical entries for moving funds in a contract hierarchy) are excluded and the user interface shows only total payments for financial documents that are generated when standing payment orders are processed. In the "Merchant Payments Mapping" handbook, specify transaction types that are used in settings of the standing payment orders.



Example of transaction type dictionary

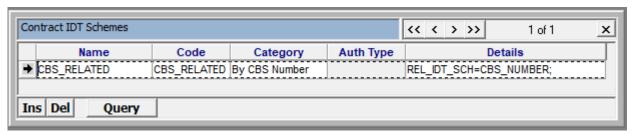
Form fields:

- Handbook Type dictionary code. The value is set in the global parameter
 API_MERCH_PAYMENT_GROUP. The default value is "MERCH_PAYMENT".
- Trans Type IDT the value of the Trans Type IDT field in the "Transaction ALL" form
 (TRANS_TYPE table), menu item "Full → Configuration Setup → Transaction Types → Transaction –
 ALL".
- Name transaction type name.
- FI financial institution.
- Product Category Product category. The default value is "Acquiring".



19 "Contract IDT Schemes" Dictionary

The "Contract IDT Schemes" dictionary is used to register contract identification methods in Way4 (Full → Configuration Setup → Accounting Setup → Contract IDT Scheme). For example, to identify related card contracts when setting parameters for a multi-currency debit card with independent balances. For more information, see the document "Multi-currency Debit Card with Independent Balances" (supplied according to a separate agreement with OpenWay). Information about related card contracts is given in the section "Related Cards" of the document "Issuing Module".



"Contract IDT Schemes" dictionary

Form fields:

- Name identification method name.
- Code code of the contract identification method.
- Category identification method.
- Auth Type code of the identification scheme type that us used to search for contracts. The field
 is available if the "By Auth Scheme" value is selected in the Category field. A list of identification
 scheme type codes is created in the "Identification Types" dictionary (Authentication Module →
 Identification Types).
- Details tags that are used to identify contracts.