



Operation Manual

Way4 Client and Contract Classifiers

03.53.30

19.07.2021

Contents

1	Client and Contract Classifiers	6
1.1	General Concept	6
1.1.1	Purpose of Classifiers	6
1.1.2	Classifier Types	6
1.1.3	Main Principles of Use	7
1.2	Configuring Classifiers	10
1.2.1	Configuring User Classifiers with Arbitrary Codes	10
1.2.2	Configuring Hardcoded User Classifiers	15
1.2.3	Configuring System Classifiers	15
1.2.4	Configuring the "DLQ_LEVEL" System Classifier	17
1.3	Configuring default classifiers	20
1.3.1	Configuring a Classifier for a Product	21
1.3.2	Configuring a default classifier for a financial institution	26
1.3.3	Configuring a default classifier for a contract subtype	26
1.3.4	Actions when a default classifier value is changed for a Product, financial institution or contract subtype	27
1.4	Configuring Rules for Using Classifiers	29
1.4.1	Changing Values of Client or Contract User Classifiers	29
1.4.2	Opening an Event when Assigning a Classifier Value	32
1.4.3	Performing Actions Depending on Classifier Values	33
1.4.4	Generating a Product List for a Client	37
1.5	Viewing Classifier Data	38
1.5.1	System Classifiers and their Values	38
1.5.2	User Classifiers and their Values	38
1.5.3	Viewing Client and Contract Classifier Data	38
2	Domain-based classifiers	42
2.1	Terminology	42
2.2	Configuring domain-based classifiers	42
2.2.1	Registering domain types and domains	43
2.2.2	Including a classifier in a domain	44
2.3	Domain-based classifier parameters	46

2.4	Domain-based classifier default value	47
2.5	Changing a domain	48
2.5.1	Changing the domain for a financial institution/Product/contract	48
2.5.2	Changing a contract's Product/financial institution or a client's financial institution	50
2.6	Default domain	51
3	Calculated Classifiers (Decisions)	53
3.1	Configuring Calculated Classifiers	53
3.1.1	"Decision" Form	53
3.1.2	"Results" Form	55
3.1.3	"Rules" Form	55
3.2	Viewing Current Values of Calculated Classifiers	57
3.3	Configuring Execution of Actions Depending on a Calculated Classifier Value	58
3.4	Sample Configuration	58
3.5	History of Changes to Calculated Classifier Values	61
4	Blocking Product Options	63
4.1	General Information	63
4.2	Blocking Setup	63
4.2.1	Segmentation Classifiers	63
4.2.2	Blocking Conditions (Decisions)	64
4.2.3	Product Option Blocking	66
4.2.4	Showing Blocking Reasons in the Interface	68
4.2.5	Execution of Actions Depending on Blocking Status	69
5	Classifiers without a Fixed List of Values	70
6	Contract and Client Custom Parameters	71
6.1	"Contract Parameters Setup" Form	71
6.1.1	Overview of the "Contract Parameters Setup" Handbook	71
6.1.2	Overview of the "Contract Parameters Setup"	73
6.2	Current parameter values	81
6.3	Manually changing the value of a client/contract custom parameter	83
6.4	History of changes to a custom parameter	84
6.4.1	History of parameters with "Contract"/"Client" in the Value Location field and an empty Mirror To field	86

6.4.2	Initializing history	87
6.5	"OBSOLETE Contract Parameters handbook" Form	87

This section document is intended for bank or processing center employees responsible for configuring Way4 and contains information about configuring and using client and contract classifiers.

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

- Events
- Products and Contract Subtypes
- Way4 Service Packages
- Usage Limiters
- Standing Payment Orders
- Configuration of Client Messages
- Advanced Applications R2
- Daily Procedures
- Preferred Counterparties
- Balance Types

The following notation can be used in the document:

- Field labels in screen forms are shown in *italics*.
- Key combinations are shown in angular brackets, for example, <Ctrl>+<F3>.
- Names of screen form buttons and tabs are shown in square brackets, for example, [Approve].
- Sequences for selecting user menu items or context menu items are shown using arrows as follows: "Issuing → Contracts Input & Update".
- Sequences for selecting system menu items are shown using arrows as follows: Database => Change password.
- Variables that differ for each local instance, such as directory and file names, as well as file paths are shown in angular brackets, as in <OWS_HOME>.

Warnings and information are marked as follows:



Warnings about potentially hazardous situations or actions.



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

1 Client and Contract Classifiers

1.1 General Concept

1.1.1 Purpose of Classifiers

Client and contract classifiers allow flexible configuration of business processes in Way4:

- Classifiers make it possible to segment clients and contracts (separate clients and contracts into groups) depending on the current status of a client and/or contract.
- Classifiers make it possible to set conditions for executing various actions in the system, depending on the current status of a client and/or contract.
- Joint use of classifiers and Events make it possible to configure a chain of linked actions, where a change in the classifier value (change in the status of a client or contract) on the one hand, can be initiated by an Event, and on the other hand, can cause an Event to open.

Classifiers can be used, for example, to address the following tasks:

- Indicators of client importance (VIP) can be stored using classifiers:
- The possibility to store indicators of client importance on the client, and not the Product level makes it possible to simplify Product configuration. When segmenting clients on the Product level, a large number of Products must be created with minimal differences for different client groups. Classifiers make it possible to decrease the set of Products used.
- This possibility allows optimization of customer support.
- Classifiers can be used to store indicators that a cardholder belongs to a group of insiders for further use of this data in reports.
- Classifiers can be used to set client agreement to disclosure of personal data to third parties (for example, to a credit history bureau). In this case, classifiers can be used to generate reports and when exporting data to third party systems.
- Classifiers can be used for marketing tasks (for example, for mass mailing of advertisements).
- Classifiers can regulate the assignment of tariffs, etc., to a contract.

1.1.2 Classifier Types

Classifiers are divided into the following types:

- Standard – system classifiers. Classifiers predefined in Way4 (usually system classifiers are included in the delivery package and do not need to be preset by users). Distinguishing characteristics of system classifiers:
 - A number of client and contract parameters act as system classifiers, for example, balance type and client type.

- The list of a system classifier's values is determined by the possible values of the corresponding client or contract parameter.
- A change in the value of a system classifier for a client or contract is defined by a change in the value of the corresponding client or contract parameter. Client and/or contract parameters can change when processes configured in the system regulating the contract lifecycle are executed (for example, the transfer of a contract from one behavior type to another due to loan delinquency).
- Primary – user classifiers requiring presetting. Distinguishing characteristics of this type of user classifier:
 - User classifiers and their values are configured by Way4 users.
 - This type of classifier can be used to change user classifier values manually (through a form, with applications) and automatically (with Events).
 - Generally, user classifiers have arbitrary codes. In a number of cases, predefined codes are set for user classifiers. These classifiers require additional settings.
- Secondary – user classifiers requiring presetting. Distinguishing characteristics of this type of user classifier:
 - User classifiers and their values are configured by Way4 users.
 - It is recommended to use this type of classifier to configure automatic change of classifier values (when an Event is opened). It is not recommended to assign (change) values for this type of classifier manually through forms.

Depending on the means for storing data on the current classifier value assigned to a client or contract, classifiers can be separated into stored and dynamic classifiers:

- Stored classifiers – changes in the values of such classifiers are registered in a special table (classifier log). When it is necessary to determine the current value of a stored classifier, information is taken from this table. Several system classifiers, such as balance types and behavior types, and all user classifiers are stored classifiers.
- Dynamic classifiers – changes in the values of such classifiers are not recorded in the classifier log. Each time the current value of a calculated classifier must be determined, the corresponding client or contract parameter is referred to. A number of system classifiers are dynamic classifiers; for example, client type and client country.

1.1.3 Main Principles of Use

The general scheme of client and contract classifier use:

- Configuring classifiers and their values:
 - For user classifiers – the list of classifiers and their values must be configured in advance (see the section "[Configuring User Classifiers with Arbitrary Codes](#)").
 - For system classifiers – the list of classifiers must be configured in advance (the list of codes for system classifiers see in the section "[Configuring System Classifiers](#)"). The list of values of a parameter playing the role of a system classifier is set when configuring the

corresponding business processes (for example, behavior type is set when configuring loan loss reserves). If necessary, custom representations of system classifier values can be created (the names of classifier values changed), see the section "[Configuring System Classifiers](#)".

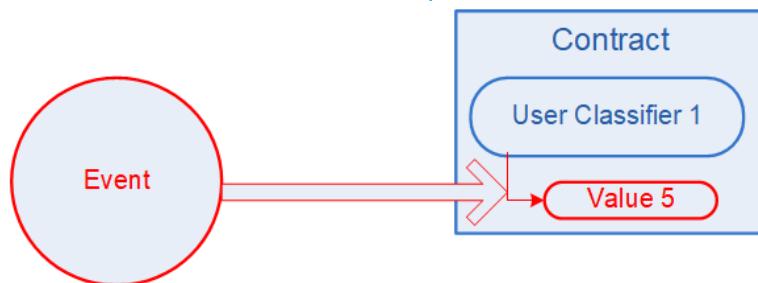
"Configuration Groups" classifiers can be used as Product system classifiers:

- When configuring "Configuration Groups" classifiers with a link to the "APPL_PRODUCT" table, these "Configuration Groups" classifiers are shown in the list of client and contract system classifiers.
- Way4 Products are flagged with these classifiers.
- These are dynamic classifiers. That is, if it is necessary to specify the current value of a classifier (specify a contract's Product), contract parameters are referred to directly (to the value of the "Configuration Groups" classifier).

For more information about configuring "Configuration Groups" classifiers, see the section "["Configuration Groups" Classifiers](#)" of the document "[Products and Contract Subtypes](#)".

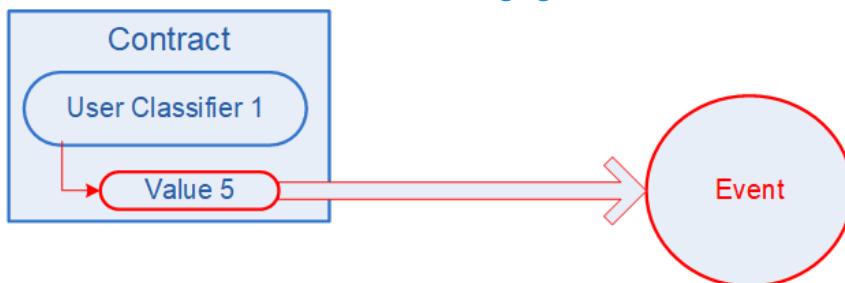
- Configuring Rules for Using Classifiers

- Changing the value of a user classifier when an Event opens – an Event can be configured that will change the value of a client or contract classifier, see [figure](#). Moreover, conditions can be set for changing the classifier value. For more information, see the section "[Changing a Classifier Value when an Event Opens](#)".



Assigning a specific value to a classifier when an Event opens

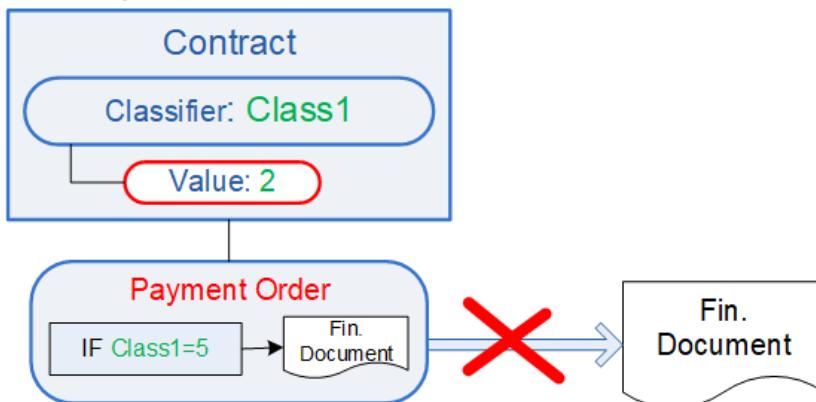
- Opening an Event when a client or contract user classifier value changes, see [figure](#) (For more information, see the section "[Changing a Classifier Value when an Event Opens](#)").



An Event opens when a classifier is assigned a specific value

- Executing an action in the system depending on the current status of the client or contract (depending on the current values of client and contract user and system classifiers), see [figure](#). For example, activating a usage limiter or payment order, sending a message, assigning tariffs to a contract. For more information, see the section "[Performing Actions](#)

Depending on Classifier Values".



Generation of a payment order document when a classifier has a specific value

- Configuring rules for generating lists of Products that can be offered to a client (depending on the values of classifiers assigned to the client). For more information, see the section "[Generating a Product List for a Client](#)".
- Changing a client or contract classifier value.
 - For user classifiers, this can be executed in the following modes:
 - When an Event opens (see [Step 2](#)).



When a classifier value changes according to an Event, the current value of the classifier may need to be analysed if a condition is set for changing the value. In this case, [Step 5](#) is executed in advance.

- Manually (for more information, see the section "[Manually Changing Classifier Values](#)").
- With an application from the Advanced Applications Module. See the section "[Changing Classifier Values using the Advanced Applications Module](#)".
- For system classifiers – values of parameters playing the role of system classifiers can be changed when processes configured in the system are executed, when Events arise in the contract lifecycle process, and when changes are made to client data records. For example, the transfer of a contract from one behavior type to another as a result of loan delinquency or a change in the bank office at which the client will receive account statements.
- Changes in stored classifier values are automatically registered in the classifier log.
 - Changes in the values of all stored classifiers (all user classifiers and stored system classifiers, see the section "[Classifier Types](#)") are recorded in the classifier log. That means that when a client or contract is assigned a specific value of such a classifier, a corresponding record is generated in the classifier log.
 - Changes in dynamic system classifiers are not recorded in the classifier log (see the section "[Classifier Types](#)").

For more information about the classifier log, see the section "[Viewing Client and Contract Classifier Data](#)".

- The current classifier value assigned to a client and/or contract is determined when it is necessary to execute an action requiring advance analysis of the classifier value (for example, generation of a standing payment order document only when the classifier has a specific value). Resulting from analysis of classifier values, corresponding actions are (or are not) executed in the system. For example, a usage limiter or payment order is activated, etc.



The procedure for determining classifier values can vary depending on whether the classifier is stored or dynamic (see the section "[Classifier Types](#)").

1.2 Configuring Classifiers

1.2.1 Configuring User Classifiers with Arbitrary Codes

The list of classifiers (user and system) is found in the "User Classifiers" form (Full → Configuration Setup → Common Handbooks → User Classifiers), see [figure](#).

User Classifiers												
Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info	On Off Mode	Domain Code
Option_01_0272	OPTION_01_0272		Classifier	OK value	Any Contract				Primary	BLOCK_CODE=BLOCK_CODE_01; Yes	Fl_0272	
Option_blocked_by_DLQ	OPTION_BY_DLQ	PROD_OPTION	Classifier	Off	Any Contract				Primary	BLOCK_CODE=BLOCK_CODE_DLQ; Yes	Fl_0272	
PBOX-29742	PBOX-29742		Classifier		Any Contract	Private	Account	Issuing	Standard			
Product	PRODUCT		Classifier		Any Contract				Standard			
Product Group	PRODUCT_GROUP		Classifier		Any Contract				Standard			
REGION_CS	REGION_CS		Classifier	Defaul Region	Any Contract				Secondary			
RESULT_ACTION1	RESULT_ACTION1		Classifier		Any Contract				Primary	RESULT_ACTION=CA;		

List of user classifiers

The form contains the following fields:

- Name* – classifier name.
- Code* – classifier code. The classifier code must be unique in WAY4.



If when configuring a user classifier its code is the same as the code of a system classifier or that of another user classifier, a corresponding error message will be displayed on the screen.

- Group Code* – classifier group code. Used for additional grouping of classifiers. The value can be entered in the field from the keyboard, or selected from a list generated with custom handbooks (see the section "Custom Handbooks" of the document "Form Builder").
- Category* – classifier category ("Classifier" or "Status"). Used for additional grouping of classifiers. This field may be left empty.
- Default Value* – classifier default value (for more information, see the description of the *Classifier Value* field in the section "[Changing a Classifier Value when an Event Opens](#)"). The field value is

selected from a drop-down list of values configured for this classifier in the "Values..." form (see [figure](#)).

- **Applies To** – this field defines objects for which this classifier will be available (objects for which the value of this classifier can be assigned; objects for which classifier value is specified when the corresponding requests to a contract in the hierarchy are made):
 - If the *Applies To* field is not filled in, when a client or classifier value is set, this classifier will be set in the client's contract (contracts) (accordingly, the classifier will be searched for on the contract level). In this case, when searching for a classifier, only classifiers in contracts are analysed.

If the *Applies To* field is filled in, a classifier is set/searched for depending on the value of the field, regardless of where the classifier is set – in the client or in the contract. See the description of *Applies To* field values below.

 - "Any Contract" – a classifier can be set in any contract in a contract hierarchy. When a contract gets a request about a classifier value, a search for the value is made only on the level of the contract for which the request was made. For the search to be continued higher up in the hierarchy, the `SKIP_MODE=IF_EMPTY;` tag must be set in the *Add Info* field of the "User Classifiers" form.
 - "Main Contract" – when a contract receives a request about the classifier value, a search for the classifier value is made, beginning with the top contract in the "Main/Sub" hierarchy (on the settlement contract level).
 - "Client" – the classifier is available for client records. When a contract receives a request for a classifier value, a search for the value is made on at the client level.
 - "CP Client" – this value is reserved for use in the Customer Profile module. The Customer Profile module is not included in the standard configuration of Way4 and is supplied according to a separate agreement with the Way4 vendor.
 - "Top Contract" – a classifier is set for the top contract in the hierarchy. When a contract receives a request for a classifier value, a search for the classifier value is made at the level of the top contract in the hierarchy. If there are no "Liability" relation types in the contract hierarchy, this value will be used in the same way as the "Main Contract" value.
 - "Product" – a classifier is set/searched for in a Product (in the *Default Value* field of the "Classifiers for <Product name>" form (Full → Configuration Setup → Products → Product Definition → Products → [Classifiers]). When this value is specified, a classifier cannot be set for a contract or client. See the section "Contract classifiers" of the document "Products and Contract Subtypes".
 - "Institution" – a classifier is set/searched for in a financial institution (in the *Default Value* field of the "Classifiers for <name of FI>" form (Full → Configuration Setup → Main Tables → Financial Institutions → [Classifiers]). When this value is specified, a classifier cannot be set for a contract or client. See the section "[Configuring a default classifier for a financial institution](#)" of the document "Financial Institutions".
 - **Effective contract** – a classifier is searched for/set for the contract that is defined by the `EFF_CONTRACT` tag in the classifier's *Add Info* field (i.e. at a certain level of the hierarchy).



The *Effective contract* value is not used for classifiers with the "Domain Type" category and for domain-based classifiers.



The *Applies To* field is used to generate a list of available classifiers for clients and contracts.

- *Client Cat* – client type ("Private" – individual, "Commercial" – legal entity, "Accountant" – bank department).
- *Contract Cat* – contract category ("Card" – card contract, "Account" – account contract, "Device" – device contract).
- *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.



The value selected in the *Applies To* field determines whether the *Client Cat*, *Contract Cat*, and *Product Cat* fields are available. For example, when the "Client" value is selected in the *Applies To* field, only the *Client Cat* field of this group will be available.

The fields *Client*, *Client Cat*, *Contract Cat*, and *Product Cat* are used in addition to the *Applies To* field to generate a list of available classifiers for a client and contract (to filter the classifier list). This list is used in the following cases:

- When manually assigning classifier values to clients and contracts (see the section "[Manually Changing Classifier Values](#)").
- When configuring changes in a classifier value according to an Event (see the section "[Changing a Classifier Value when an Event Opens](#)").

- *Log Changes* – the field determines how changes in a classifier value will be logged in the classifier log (see the section "[Viewing Client and Contract Classifier Data](#)"). Possible values:
 - "Value" – changes in classifier values are registered in the classifier log. When a classifier value is set, the new and old (previous) value are compared and if they differ, the new value is logged. If at the time of setting a classifier value, the contract has a default value set in the Product, contract subtype, financial institution, or in the settings of the classifier itself (i.e. the classifier is not set directly in the contract), the new value is compared with the default value. if they differ, the new value is logged.
 - "Value or Reason" – changes in a classifier value or changes in the reason for assigning a classifier value are logged (see the *Reason* field in the section "[Manually Changing Classifier](#)

Values"). I.e. logging is not performed only when the values of both the *Value* and *Reason* fields of the new and previous classifier value match. If at the time of setting a classifier value, the contract has a default value set in the Product, contract subtype, financial institution, or in the settings of the classifier itself (i.e. the classifier is not set directly in the contract), the new value is compared with the default value according to the rules described above. If the new value matches the default value, but the values in the *Reason* field differ, the value is logged.

- "Own Value" – changes in a classifier value that are made directly in a contract are logged. When setting a classifier value, the classifier's new and old (previous) value are compared, and if they differ, the new value is logged. If at the time of setting a classifier value, the contract has a default value set in the Product, contract subtype, financial institution, or in the settings of the classifier itself (i.e. the classifier is not set directly in the contract), the default value is not analysed as the classifier's previous value. I.e., when a classifier value which corresponds with the default value is set, the value is logged.
- "Own Value or Reason" – changes in a classifier value or changes in the reason for assigning a classifier value (see the *Reason* field in the section "[Manually Changing Classifier Values](#)") that are made directly in a contract are logged. I.e. logging is not performed only when the values of both the *Value* and *Reason* fields of the new and previous classifier value match.

If at the time of setting a classifier value, the contract has a default value set in the Product, contract subtype, financial institution, or in the settings of the classifier itself (i.e. the classifier is not set directly in the contract), the default value is not analysed as the classifier's previous value. I.e., when a classifier value which corresponds with the default value is set, the value is logged.

- *Role* – classifier role (type):
 - Primary – user classifier that can be set (changed) from forms.
 - Standard – system classifier.
 - Secondary – user classifier that is automatically assigned and cannot be changed from forms.
- *Add Info* – used to enter additional parameters as tags. See the section "Tags used when working with classifiers" of the "Setup Tags" document.
- *On Off Mode* – this field is used when setting up Product options. "Yes" is set for classifiers that only have two values – "positive" and "negative" (see the section "[Blocking Product Options](#)").
- *Domain Code* – this field is used for calculated classifiers (see the section "[Calculated Classifiers \(Decisions\)](#)").

The [Validate] button is used to validate classifier fields. For example, the uniqueness of the values in the *Name* and *Code* fields is validated, the *Applies To* field (if the field is empty, the message "Classifier "applies to" is empty" is shown). For system classifiers, when this button is clicked, a check is made that the *Is Primary* field contains the "Standard" value and classifier values are automatically filled in (see the section "[Configuring System Classifiers](#)").

The [Mapping] button is used to individually mark a client or contract classifier using a "Configuration Groups" classifier (batch marking is available in the standard form "Configuration Groups", for more

information about "Configuration Groups" classifiers, see the section "Configuring "Configuration Groups" Classifiers" in the document "Products and Contract Subtypes").

User classifier values are set in the "Values for <name of classifier>" form (see [figure](#)), opened from the "User Classifiers" form (see [figure](#)) by clicking the [Values] button.

Values for Test client classifier								
Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
3	Test value 1	CL_TEST_VALUE_1		Yes		Yes	00/00/0000	00/00/0000
1	Test value 3	CL_TEST_VALUE_3		No		Yes	00/00/0000	00/00/0000
2	Test value 2	CL_TEST_VALUE_2		Yes		Yes	00/00/0000	00/00/0000

User classifier values

The form contains the following fields:

- *Weight Factor* – classifier value priority. The parameter makes it possible to rank classifier values. The value of the field is set in numeric form (0, 1, etc.), where a larger value indicates a higher priority. This parameter is used to set conditions for transferring from one classifier value to another. For more information, see the section "[Changing a Classifier Value when an Event Opens](#)".
- *Name* – classifier value name.
- *Code* – code of classifier value. The classifier value code must be unique within this classifier.
- *Result Event Code* – name of the Event type registered in the system (see the section "Event Types" of the document "Events"). This Event will automatically open when a client or contract is assigned this classifier value (and close when a classifier value is changed). Note that an Event will be triggered once for each (corresponding) classifier value, with the exception of situations when the same Event must be triggered for two sequential classifier values. For example:
 - Event "A" is linked to classifier value "Value 1" and classifier value "Value 2".
 - A contract is assigned classifier value "Value 1" for which Event "A" is triggered (previously the classifier value, for example, wasn't assigned).
 - If the contract is assigned classifier value "Value 2" (i.e. if the classifier value changes from "Value 1" to "Value 2", Event "A" will not be triggered again).



If when changing a classifier value, a contract already has an active Event with the code specified in the classifier's *Result Event Code* field, the Event will not be opened again. This means that if the Event specified in the classifier's *Result Event Code* field is opened manually, the Event will not be opened when the classifier value changes. Therefore, it is necessary to be especially careful when manually opening Events specified in the *Result Event Code* field of classifiers.

If a classifier value is assigned to a client, the Event from the *Result Event Code* field will be opened for all this client's contracts on the condition that this Event is registered in the Service Package of the contract.

- *Is OK Value* – a marker allowing the classifier value to be evaluated as positive ("good") if the value is "Yes" or negative ("bad") if the value is "No". This marker is of a conditional character and is used to set rules for transferring between classifier values according to an Event (see the section "[Changing a Classifier Value when an Event Opens](#)"). For example, it is possible to set a transfer from a positive value to a negative one; and prohibit the opposite.

General rules for changing a classifier's values when an Event opens:

- A "bad" value is not replaced with a "bad" value that has a lower priority.
- A "bad" value is replaced with a "bad" value that has a higher priority.
- A "good" value is not replaced with a "good" value that has a lower priority.
- A "good" value is replaced with a "good" value that has a higher priority.
- A "good" value is always replaced with a "bad" value, regardless of priority.
- A "bad" value is not replaced with a "good" value, regardless of priority.

For more information about setting up conditions for changing from one value to another, see the section "[Changing a Classifier Value when an Event Opens](#)".

- *Add Info* – additional information. This field can be used to enter additional parameters in the form of tags.
- *Is Active* – classifier activation marker:
 - "Yes" – the value is active. An active classifier value can be assigned to a client or contract.
 - "No" – the value is inactive. An inactive value cannot be assigned to a client or contract. Inactive values are not shown in the list of classifier values when configuring changes to classifier values according to an Event (see the section "[Changing a Classifier Value when an Event Opens](#)"), as well when manually changing client and contract classifier values (see the section "[Manually Changing Classifier Values](#)").
- *Date From, Date To* – fields for entering dates to specify the time interval during which this classifier is active (these fields are filled in when the "Yes" value is specified in the *Is Active* field).

1.2.2 Configuring Hardcoded User Classifiers

Hardcoded user classifiers make it possible to perform additional actions or check. Contact the Way4 vendor for setup of these classifiers.

Examples of using hardcoded classifiers:

- Classifier used for MasterCard ALM (Account Level Management) programs.
- Classifier used when working with VAU (Visa Account Updater) and MABU (MasterCard Automatic Billing Updater) functionality.

1.2.3 Configuring System Classifiers

System classifiers are created by Way4 users; however, system classifier codes are hardcoded in Way4. The list of codes for system classifiers that can be created is provided below.

- "DEVICE_TYPE" – device type classifier code (POS terminal model, ATM type, imprinter type).
- "TERM_CAT" – device category classifier code ("ATM"/"POS"/"Imprinter"/ "Infokiosk").
- "F_I" – financial institution classifier code.
- "F_I_BRANCH" – classifier code corresponding to a financial institution's *Branch Code* identifier. There may be several financial institutions in WAY4 with the same value in the *Bank Code* field and different values in the *Branch Code* field.
- "BRANCH" – financial institution branch classifier code.
- "COUNTRY" – country classifier code.
- "PRODUCT_GROUP" – Product group classifier code.
- "CONTR_SUBTYPE" – contract subtype classifier code.
If subtype names change, changes are synchronized with the CONTR_SUBTYPE classifier using the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → Product Utilities → Update contract subtypes classifier". Also see the section "RBS Code" of the document "Products and Contract Subtypes".
- "CLIENT_TYPE" – code of the classifier corresponding to client type
- "BEH_TYPE" – contract risk group (behavior type) classifier code.
- "CONTR_STATUS" – contract status classifier code.
- STOP_LIST_STATUS – code of the classifier used to put a client in a stop list.
- "DLQ_LEVEL" – code of the classifier used to define the level (depth, status) of a contract's delinquency. The classifier is based on balance types used for delinquent debt. See the section "[Configuring the "DLQ_LEVEL" System Classifier](#)".
- A classifier with a code that corresponds to a balance type code is a system classifier, if in this balance type "Classifier" is specified in the *Is State* field of the "Balance Types" form. See the section "Registering Balance Types" of the document "Balance Types".
- A classifier with a code that corresponds to the code of a contract parameter is a system classifier, if "Classifier" is specified in the *Mirror To* field of the "Contract Parameters Setup" form for this parameter. See the section "[Contract and Client Custom Parameters](#)".

If it is necessary to create a system classifier based on a contract or client parameter, create this classifier manually in the "User Classifiers" form. The system classifier should be assigned the "Standard" value in the *Role* field



When a system classifier is created based on a balance type or configured in the "Configuration Groups" form, classifier values are entered manually. Note that a classifier value code must not exceed 32 characters.

In general, the list of system classifier values is created (refreshed) automatically:

- When the "User Classifiers" form is opened (when the menu item "Full → Configuration Setup → Common Handbooks → User Classifiers" is executed).
- By Clicking on the [Validate] button in the "User Classifiers" form.

- When the menu item "Full → Configuration Setup → Common Handbooks → Standard classifiers markup" is executed.

When creating a new value for a parameter that corresponds to a system classifier, the list of parameter values and the list of classifier values must be synchronised using the menu item "Full → Configuration Setup → Common Handbooks → Standard classifiers markup" for correct work with classifiers.

The "DLQ_LEVEL" classifier, classifiers corresponding to balance types, and custom parameters are exceptions. Values are entered manually for these system classifiers. Values for a classifier that corresponds to a balance type are linked with "Threshold" tariffs (see the section "[Configuring the "DLQ_LEVEL" System Classifier](#)").



STOP_LIST_STATUS is a standard classifier, but its values are configured manually.

If Way4Web is used (Customer Service Workbench), give STOP_LIST_STATUS the "Primary" role and configure the classifier value manually. See the section "Events, States & Classifiers" of the document "Configuring Customer Service Workbench" ("Customer_Service_Configuration.pdf" from the Way4Web distribution).

When automatically generating a list of values for the CONTR_STATUS classifier, records are searched for in the "Contract Statuses" form (Full → Configuration Setup → Contract Types → Contract Statuses). Sorting is performed by contract category. I.e. if several records are found with the same code (*External Code* field) and different contract categories (the value of the *External Code* field is unique in the contract category), a record with the "Account" category (first record according to alphabetic order) will be added to the list of classifier values. A classifier value's name can be changed. For example, if the list contains a value with the code "14" and the name "Account Closed", the name can be changed to "Card Closed" (see below).

If necessary, system classifiers and their values can be given user-defined names that differ from predefined ones to create a custom representation of classifier data in the system interface (for example, in the form for viewing contract classifiers "Customer Service → Customer Service → [Classifiers]"). System classifiers are changed in the form "User Classifiers" (Full → Configuration Setup → Common Handbooks → User Classifiers), see the figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)", in the same way as user classifiers.



Note that system classifiers corresponding to parameters in a Product (CONTR_SUBTYPE, PRODUCT_GROUP) are recalculated in contracts in the "Apply Product Changes" procedure.

1.2.4 Configuring the "DLQ_LEVEL" System Classifier

The system classifier with the code "DLQ_LEVEL" is used to define the current maximum delinquency period for a contract. Classifier values must correspond to balance types used for delinquency accounts.

For this classifier to work:

- The corresponding balance types must be predefined (see figures) for a delinquency account (OVD account) with balance types set for them (a balance type is specified in an account template's *Balance Type* field).
- The "DLQ_LEVEL" system classifier must be created in the list of classifiers in the "User Classifiers" form (like other system classifiers), see figures.
- This classifier's values are registered manually. The set of classifier values must correspond to the set of balance types configured for delinquent debt (Past Due). The classifier value code must correspond to the value of the *Dlq Level* field for the respective balance type, see figures.

For more information about configuring balance types, see the document "Balance Types".

The figure consists of three vertically stacked screenshots from a software application interface.

Screenshot 1: User Classifiers

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info
Delinquency Level	DLQ_LEVEL	Status	No Debts (OK)	Main Contract					Issuing	Standard

Screenshot 2: Values for Delinquency Level

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
0	No Debts	0		Yes		Yes	00/00/0000	00/00/0000
1	Due	1		Yes		Yes	00/00/0000	00/00/0000
2	Past Due 01	2		Yes		Yes	00/00/0000	00/00/0000
3	Past Due 02	3		Yes		Yes	00/00/0000	00/00/0000
4	Past Due 03	4		Yes		Yes	00/00/0000	00/00/0000
5	Past Due 04	5		Yes		Yes	00/00/0000	00/00/0000

Screenshot 3: Balance Types

Name	Code	Main Only	By Billing	Is State	Dlq Code	Dlq Level	Skip Liab	Direction	Group Code	Posting Details
Due	DUE	Main Only			+	1		None		
Past Due 01	OVD_01	Main Only			1	2		None		
Past Due 02	OVD_02	Main Only			2	3		None		
Past Due 03	OVD_03	Main Only			3	4		None		
Past Due 04	OVD_04	Main Only			4	5		None		

A red arrow points from the circled '1' in the 'Dlq Level' column of the 'Values for Delinquency Level' table to the circled '1' in the 'Dlq Level' column of the 'Balance Types' table.

Configuring the "DLQ_LEVEL" System Classifier

The screenshot shows three tables in the Way4 Client interface:

- User Classifiers** table (top):

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info
→ Delinquency Level (DLQ_LEVEL)			Status	0 No Debts (OK)	Main Contract			Issuing	Standard	
- Values for Delinquency Level** table (middle):

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
0	No Debts	0		Yes		Yes	00/00/0000	00/00/0000
1	Due	1		Yes		Yes	00/00/0000	00/00/0000
2	Past Due 01	2		Yes		Yes	00/00/0000	00/00/0000
3	Past Due 02	3		Yes		Yes	00/00/0000	00/00/0000
4	Past Due 03	4		Yes		Yes	00/00/0000	00/00/0000
5	Past Due 04	5		Yes		Yes	00/00/0000	00/00/0000
- Balance Types** table (bottom):

Name	Code	Main Only	History Mode	Is State	Dlq Code	Dlq Level	Skip Liab	Direction	Group Code	Posting Details
Due	DUE	Main Only	None		1	1	None			USAGE=UNUSED;
Past Due 01	OVD_01	Main Only	None		2	2	None			USAGE=UNUSED;
Past Due 02	OVD_02	Main Only	None		3	3	None			USAGE=UNUSED;
Past Due 03	OVD_03	Main Only	None		4	4	None			USAGE=UNUSED;
Past Due 04	OVD_04	Main Only	None		5	5	None			USAGE=UNUSED;

Configuring the "DLQ_LEVEL" system classifier (synchronized balance type codes, starting from version 03.48.30)

Starting from version 03.48.30, the values of the "Balance Type" form's *Dlq Code* and *Dlq Balance* fields (see [figure](#)) have been aligned for balance types linked with the values of a DLQ_LEVEL classifier, in particular:

- For a balance type that corresponds to the "Due" value of the DLQ_LEVEL classifier, the code in the *Dlq Code* field has been changed from "+" to "1".
- For a balance type that corresponds to the "Past Due 01" value of the DLQ_LEVEL classifier, the code in the *Dlq Code* field has been changed from "1" to "2" etc.

Starting from version 03.48.30, the Dlq code for the "No Debts" value of the DLQ_LEVEL classifier is determined using the global parameter NO_DUE_DLQ_CODE (see the section "NO_DUE_DLQ_CODE" of the document "Way4 Global Parameters"). By default, the global parameter's value is "0". The value can be redefined.

These changes do not affect existing configurations and will only be reflected in new installations of Way4 (when Way4 is first installed, starting from version 03.48.30).

If delinquency arises (a non-null balance is established in an OVD account), the contract is automatically assigned the value of the classifier corresponding to the account balance type. The classifier value automatically changes when the debt is transferred to another OVD account (when the delinquency period increases), or when the debt is repaid. For debt with a different delinquency period, the classifier value will correspond to the account balance type with the maximum delinquency period.

In addition to the standard classifier with the "DLQ_LEVEL" code, similar classifiers can be configured to classify various lines of delinquency accounts for one contract. For example, instalment loan delinquency accounts can be kept separately from standard delinquency accounts. To configure a

classifier for instalment loan delinquency accounts, configure an additional system classifier with the code DLQ_LEVEL_<arbitrary unique postfix> (for example, with the code DLQ_GROUP_INST). For the classifier, configure the required accounts and balance types (in the same way as for the classifier with the "DLQ_LEVEL" code). Configured balance types must be marked with the tag DLQ_GROUP=<classifier code postfix>; (in our example DLQ_GROUP=INST;). The DLQ_GROUP tag is set in the *Posting Details* field of the "Balance Types" form.

1.3 Configuring default classifiers

A default classifier configured for a Product, contract subtype, or financial institution is used if this classifier is not set for the contract.

For a Product, it is also possible to configure default classifiers that are set for a contract when the contract is created (the first time the contract is approved).

User classifiers that have been registered in the "User Classifiers" form are used as default classifiers, see the section "[Configuring User Classifiers with Arbitrary Codes](#)".

A classifier can be used as a default classifier if it has the following settings in the "User Classifiers" form ("Full → Configuration Setup → Common Handbooks → User Classifiers", see the section "[Configuring User Classifiers with Arbitrary Codes](#)"):

- The classifier has the value "Any Contract", "Top Contract", or "Main Contract" in the *Applies To* field and the DEFAULT_FROM tag is set for the classifier (see the tag's description in the section "Tags used when working with classifiers" of the "Setup Tags" document).

or

- The classifier has the value "Product" or "Institution" in the *Applies To* field (see the section "[Configuring User Classifiers with Arbitrary Codes](#)").

When a classifier is used with the tag DEFAULT_FROM=PRODUCT,CONTR_SUBTYPE,F_I;, if a classifier is not set for a contract, a classifier value will be searched for in the following order (regardless of the sequence in which values are specified in the DEFAULT_FROM tag):

- Product
- Contract subtype
- Financial institution

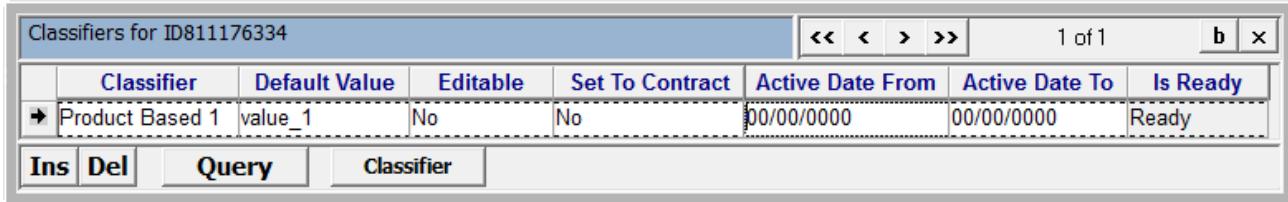
If no classifier is found at these levels, the default value from the parameters of the classifier itself is used (the value of the *Default Value* field in the "User Classifiers" form).

For classifiers with the "Product" or "Institution" value in the *Apply To* field, if a classifier is not set for a contract, the classifier value is taken from Product or financial institution parameters, respectively. If no classifier is found at the specified level, the default value from the parameters of the classifier itself is used (the value of the *Default Value* field in the "User Classifiers" form).

1.3.1 Configuring a Classifier for a Product

1.3.1.1 "Classifiers for <Product name>" form

The list of default classifiers for a Product is kept in the "Classifiers for <Product name>" form (Full → Configuration Setup → Products → Product Definition → Products → [Classifiers]), see [figure](#).



Classifiers for ID811176334							
	Classifier	Default Value	Editable	Set To Contract	Active Date From	Active Date To	Is Ready
→	Product Based 1	value_1	No	No	00/00/0000	00/00/0000	Ready

Buttons: Ins Del Query Classifier

Configuring contract classifiers in a Product

There are two ways of adding a classifier to a list (for setting a classifier), depending on the value of the *Set To Contract* field:

- To add a classifier with the "N" value of the *Set To Contract* field, the "Set Default Classifier Value" command from the context menu of the [Approve] button in the "Products" form is used. See the section "[Setting default classifiers with "N" in the Set To Contract field](#)".
- To add a classifier with the "Y" value of the *Set To Contract* field, a new record is added in the standard way, by clicking the [Ins] button in the "Classifiers for...>" form, and filling in the fields of the new record. This form's fields are described below.

The "Classifiers for...>" form contains the following fields:

- *Classifier* – name of the contract's user classifier. This field shows the entire list of classifiers (client and contract system classifiers, user classifiers). Only contract user classifiers should be selected from this list. If a client or contract system classifier is selected, or a client user classifier, this setting will not work.
- *Default Value* – classifier value that is assigned to the contract/client when a contract is created.



The *Default Value* field is mandatory. If the *Default Value* field is left empty, the classifier that is set in the *Classifier* field will not be used.

- *Editable* – reserved for forward compatibility.
- *Active Date From* – start date of the period (the period end date is set in the *Active Date To* field). Contracts created during this period for the Product will be assigned the classifier in the *Classifier* field with the value from the *Default* field.
- *Active Date To* – end date of the period (the period start date is set in the *Active Date From* field). Contracts created during this period for the Product will be assigned the classifier in the *Classifier* field with the value from the *Default* field.



When checking the active period of a classifier set in a Product, the *Active Date From* and *Active Date To* fields are compared with the financial institution's banking date. The active period for the classifier value is determined by the system date (*Date From*, *Date To* fields in the "Values for <classifier name>" field; "Full → Configuration Setup → Common Handbooks → User Classifiers → [Values]").

- **Set To Contract** – the field defines rules for working with the default classifier value that is set in the *Default Value* field:
 - "Y" – if the field is not filled in or "Y" is specified, the value of the *Default Value* field is set in the contract when approving the contract for the first time. This is the default behavior.
 - "N" (recommended value) – the value of the *Default Value* field is NOT set in the contract when approving the contract. This value will be regarded as the default value for this Product and can be used as follows:
 - For a classifier with the "Product" value in the *Apply To* field (Full → Configuration Setup → Common Handbooks → User Classifiers), the default value in the Product (*Default Value*) is used as the value of the contract classifier. In this setup, the classifier cannot be set for a contract; the value is always taken from the Product.
 - For a classifier with the tag **DEFAULT_FROM=PRODUCT**; in the *Add Info* field (Full → Configuration Setup → Common Handbooks → User Classifiers), the default value in the Product (*Default Value*) is used as the classifier's default value if the classifier is not defined (not found) for the contract.
 - For a contract parameter with the "Product" value in the *Value Location* field and the "Classifier" value in the *Check Product* field (Full → Configuration Setup → Common Handbooks → Contract Parameters Setup), the default value in the Product (*Default Value*) is used as the value of the contract parameter. In this setup, the parameter cannot be set for a contract, the value is always taken from a Product.
 - The default value in the Product (*Default Value*) is used as the default value of the contract parameter (i.e. if the parameter is not set for the contract) for the parameter's following settings in the "Contract Parameters Setup" form (Full → Configuration Setup → Common Handbooks → Contract Parameters Setup): in the parameter's *Check Product* field, specify the "Classifier" value, in the *Value Location* field – the "Contract" value (the parameter is stored as a tag in the contract), in the *Mirror To* field – the "Classifier" value. The **DEFAULT_FROM=PRODUCT**; tag must be set for the corresponding classifier. In this setup, if a classifier is not set in the contract, the value from the Product will be shown in the interface, as both the classifier value and parameter value.

For more information, see the section "[Contract and Client Custom Parameters](#)".

In the form, two records can be registered for the same classifier, with overlapping dates, but with different values in the *Set To Contract* field. For example, one record may contain the default value for classifier N1, and the second record defines classifier N1's value that will be assigned to new contracts.

For one classifier with one value in the *Set To Contract* field, several records can be set with dates that don't overlap. For example, a new value must become active after the old (current) value expires.

- *Is Ready* – the field shows whether changes made to this record were approved (when approving the Product).

When setting a classifier with the "Y" value in the *Set To Contract* field (that is, after adding a new record with the "Y" value in the "Classifiers for..." form), approve the Product.



When setting a classifier with the "N" value in the *Set To Contract* field (that is, after adding a new record with the "N" value in the "Classifiers for..." form), the Product status (*Is Ready*) remains unchanged, that is Product approval is not required.

Clicking the [Classifiers] button in the "Classifiers for <Product name>" form (see [figure](#)) opens a form with a classifier's parameters. To see the list of the classifier's values, click the [Value] button. For classifiers with "N" in the *Set To Contract* field, this form can show the list of Products ([Prod defaults] button) and financial institutions ([FI defaults] button) for which this classifier was added as the default classifier.

For a Product, "classic" contract classifiers used for contract segmentation can be set, as well as contract classifiers used to enable Product options. Product options are indicators of certain events or stages in a contract's life cycle. For example, allowing/prohibiting authorization for a contract, etc. A Product option can be "blocked". For example, authorization for a contract can be blocked when the contract has large delinquency. For more information, see the section "[Product Option Blocking](#)".

The [Del] button is used to delete a classifier with the "Y" value in the *Set To Contract* field. After deleting a classifier, the Product status changes to "Not Ready", and the Product must be approved. Caution is required when deleting classifiers for the Product for which contracts were created.

Approving a Product and applying changes to contracts may take a time, that is this procedure may lead to the situation when contracts are not available for operations for some time.



Note that classifiers with "N" in the *Set To Contract* field are added in the "Products" form "Products" (Full → Configuration Setup → Products → Product Definition → Products) using the "Set Default Classifier Value" command from the [Approve] button's context menu. The [Ins] button should not be used to add these classifiers.

The [Del] button should not be used for deleting a classifier with the "N" value in the *Set To Contract* field. In this case the history of classifier for a contract will be lost. To delete a classifier with the "N" value in the *Set To Contract* field, use the [Deactivate] button. The button can be used to specify the date from which the classifier becomes inactive.

If it is necessary to delete a classifier with the "N" value in the *Set To Contract* field, which was erroneously set for a new Product for which no contract were created, set the "Y" value in the *Set To Contract* field for the classifier. The [Del] button will become available. Caution is required for this method – deleting the classifier using the [Del] button is **only** allowed for a newly created Products for which no contract was created.

1.3.1.2 Setting default classifiers with "N" in the Set To Contract field

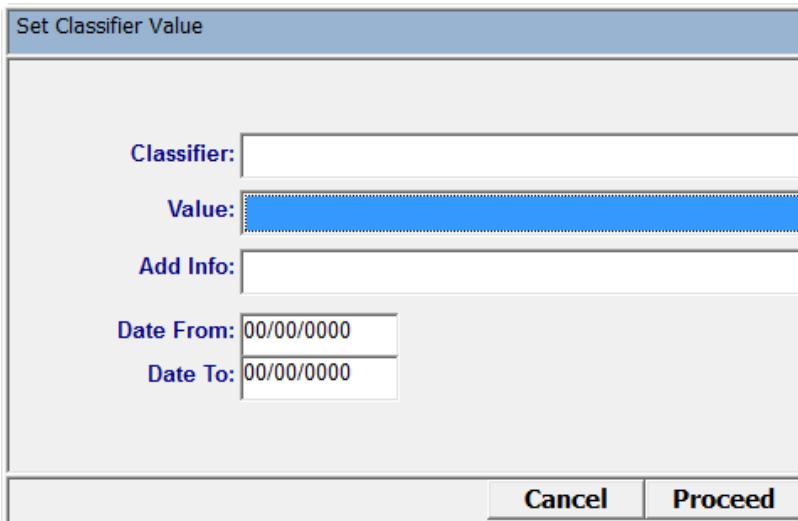


When a default value/classifier is set using the "Set Default Classifier Value"/"Set Default Classifier Value (For All)" command, the status of the Product/Products remains unchanged (Is Ready), meaning the Product doesn't have to be reapproved after this action.

When setting up contract classifiers, it is recommended to use a default classifier with "N" in the *Set To Contract* field for the Product. This makes it possible to optimize the process of installing classifiers since a classifier record is set up for the Product only and there is no need to create classifier records for separate contracts.

A default classifier with "N" in the *Set To Contract* field is set/changed for a Product in one of the following ways:

- For a separate Product – using the command "Set Default Classifier Value" from the context menu of the [Approve] button in the "Products" form (Full → Configuration Setup → Products → Product Definition → Products). This command opens the "Set Classifier Value" form, see [figure](#).



The screenshot shows a dialog box titled "Set Classifier Value". It contains the following fields:

- Classifier:** A dropdown menu.
- Value:** A text input field containing "00/00/0000".
- Add Info:** An empty text input field.
- Date From:** A date input field showing "00/00/0000".
- Date To:** A date input field showing "00/00/0000".

At the bottom of the dialog are two buttons: "Cancel" and "Proceed".

Configuring a default value for a Product

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

- *Classifier* – from the list, select a contract classifier whose parameters include the tag DEFAULT_FROM=PRODUCT; or a contract classifier with "Product" in the *Applies To* field.
- *Value* – classifier value that will be used as the default value for the Product.
- *Add Info* – reserved for forward compatibility.
- *Date From* and *Date To* – start/end dates of the active period for this default value.

When the [Proceed] button is clicked in the "Classifiers for <Product name>" form (see figure in the section "["Classifiers for <Product name>" form](#)") a new record is automatically created with the *Default Value* field filled in and "N" in the *Set To Contract* field.

If a default value for a certain classifier has already been set for the Product, when the new default value is added, a check is made of whether the effective periods overlap for the old and new values. That is, the start date of the new value must be greater than the end date of the old value.

If the *Date To* field for the old default value was not filled in, when a new record is added, the *Date To* field will be filled in automatically (with the start date for the new value). If the *Date To* field for the default value is not filled in, the [Deactivate] button will be available. Clicking this button opens a form to enter the classifier value's end date.

- For Product groups – to do so, filter Products in the "Products (No Hierarchy)" form (Full → Configuration Setup → Products → Product Definition → Products (No Hierarchy)). To assign a default classifier to all Products that are shown in the form, run the command "Set Default Classifier Value (For All)". After clicking the [OK] button in the warning message "Do you want to execute 'Set Default Classifier Value (For All)' action for all records?", a form like the one shown in [figure](#) will open for entering the default classifier's parameters. Fields are filled in like when adding a default classifier for a separate Product.

Adding/changing a default classifier for a Product doesn't lead to changes for specific contracts. These classifiers are not set physically for a contract. Information about a default value is provided when a request is received for a classifier value (in the appropriate configuration).

A record that was added for a default classifier can be viewed in the form "Classifiers for <Product name>" (see figure in the section "[Classifiers for <Product name> form](#)").

1.3.2 Configuring a default classifier for a financial institution

To set/change a default classifier for a financial institution, open the "Financial Institutions" form with the menu item "Full → Configuration Setup → Main Tables → Financial Institutions" or "Full → DB Administrator Utilities → Special OpenWay Utilities → Apply Default Classifier Value Changes → Financial Institutions", select the required financial institution, click the [Do] button and run the context menu command "Set Default Classifier Value". When this command is run, the "Set Classifier Value" form opens. This form is the same as the one used to set a default classifier value for a Product (see figure in the section "[Setting default classifiers with "N" in the Set To Contract field](#)").

From the list in the *Classifier* field of the "Set Classifier Value" form, select a contract classifier whose parameters have the tag DEFAULT_FROM with the "F_I" value or a contract classifier with the "Institution" value in the *Applies To* field.

Fill in the remaining fields in the same way as when adding a classifier for a Product (see the section "[Setting default classifiers with "N" in the Set To Contract field](#)").

When the "Set Default Classifier Value" command is used to set/change a default classifier value, no additional actions are required to activate this setting.

Setting/changing a default classifier for a financial institution doesn't lead to changes for specific contracts. A default classifier is used when a classifier value is requested, if a classifier is not set for the contract.

A special procedure must be used if actions with the contract must be performed due to the change in the default classifier value (see the section "[Actions when a default classifier value is changed for a Product, financial institution or contract subtype](#)").

A default classifier record that was added can be viewed in the "Classifiers for <financial institution name>" form (see [figure](#)) that is opened by clicking the [Classifiers] button in the "Financial Institutions" form (Full → Configuration Setup → Main Tables → Financial Institutions).

Classifiers for Principal						b	x
Financial Institution	Classifier	Default Classifier Value	Date From	Date To	Is Ready	2 of 2	
Principal	Test1	203	23/03/2016	12/06/2017	Ready		
Principal	Test1	203	15/06/2017	00/00/0000	Ready		
Ins	Del	Query	Deactivate				

Configuring a default value for a financial institution

1.3.3 Configuring a default classifier for a contract subtype

To set/change a default classifier for a contract subtype, open the "Contract Type" form using the menu item "Full → Configuration Setup → Contract Types → <Client Category> Contract Types" and click the [Sub Type] form to go to the contract subtype form. In the "Sub Types" form select the required subtype and specify a classifier and classifier value as a tag in the *Add Params* field in the format <classifier code>=<classifier value>;

No additional actions are required to active the default classifier value.

Setting/changing a default classifier for a contract subtype doesn't lead to changes for separate contracts. A default classifier is used when a classifier value is requested, if a classifier is not set for the contract.

A special procedure must be used if actions with the contract must be performed due to the change in the default classifier value (see the section "[Actions when a default classifier value is changed for a Product, financial institution or contract subtype](#)").

1.3.4 Actions when a default classifier value is changed for a Product, financial institution or contract subtype

When a contract classifier is implicitly changed (when a default classifier marked with the DEFAULT_FROM tag and set for a Product, contract subtype, or financial institution is changed), it may be necessary to perform certain actions in the system directly when the classifier value is changed. For example, to open an Event. These actions are not performed automatically when a default classifier value changes, since the value is not physically changed for the contract, but for the Product/contract subtype/financial institution.

For example, if for a classifier value, an Event is specified in the *Result Event Code* field of the "Values for" form (Full → Configuration Setup → Common Handbooks → User Classifiers → [Values]), this Event will not open for a contract when this default classifier value is set.

For actions related to a change in a default classifier value to be performed in Way4:

- Use the menu item "Apply Default Classifier Changes" that is run separately for Products, contract subtypes and financial institutions:
 - For Products – open the "Products (No Hierarchy)" form using the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → Apply Default Classifier Value Changes → Products (No Hierarchy)". In the "Products (No Hierarchy)" form, select the required Product, click the [Do] button and run the context menu command "Apply Default Classifier Changes".
 - For contract subtypes – open the "Contract Type" form using the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → Apply Default Classifier Value Changes → Contract Type" and click the [Sub Type] button to go to the contract subtypes form. In the Sub Types form, select the required subtype, click the [Actions] button and run the context menu command "Apply Default Classifier Changes".
 - For financial institutions – open the "Financial Institutions" form using the menu item "Full → DB Administrator Utilities → Special OpenWay Utilities → Apply Default Classifier Value Changes → Financial Institutions", select the required financial institution, click the [Do] button and run the context menu command "Apply Default Classifier Changes".
- Running the "Apply Default Classifier Changes" command opens the "Apply Default Classifier Changes" form, see [figure](#).

Apply Classifier Value Changes

Action For:	PRODUCT
Classifier:	CSCP_1
New Value:	value 0 for CSCP_1
Previous value:	value 1 for CSCP_1

Cancel **Proceed**

"Apply Default Classifier Changes" form

- In the "Apply Default Classifier Changes" form, fill in the following fields:

- Classifier* – select the classifier for which the default value changed.
- New Value* – enter the new value in this field.
- Previous Value* – enter the old (previous) value in this field.
- The *New Value* and *Previous Value* fields are filled in as follows:

Option 1. A new classifier value has already been set for a Product/Subtype/financial institution. In this case, in the *New Value* field, specify the new value that has already been set. The *Previous Value* field can be left empty, for example, if the classifier is being set for the first time.

Option 2. Sometimes it may be necessary to perform actions that are related to setting a default classifier value before it is set. In this case, in the *New Value* field, specify the classifier value that will be set. In the *Previous Value* field, specify the classifier's current value.

If the *New Value* or *Previous Value* field is not filled in, a search is made for the current value of the default classifier according to the classifier's settings in the "User Classifiers" form, in particular according to DEFAULT_FROM tag values. When searching according to DEFAULT_FROM tag values, the level for which the command "Apply Default Classifier Changes" was run is skipped (for example, when

DEFAULT_FROM=PRODUCT,CONTR_SUBTYPE,F_I;; if the command "Apply Default Classifier Changes" was run in the Product form, a search is made at the subtype and financial institution level and the Product level is skipped). The value that is found is used as the value of the empty field for checking: a check is made that the values in the *New Value* and *Previous Value* fields differ. If values in the *New Value* and *Previous Value* fields match, an error message is generated.

- After filling in the fields in the "Apply Default Classifier Changes" form, click the [Proceed] button. Note that:
 - A check will be made of the classifier value for contracts (if the *New Value* or *Previous Value* field is not filled in) and contracts will be selected for actions. Contracts are selected for which this default classifier at this level (Product/

subtype/financial institution) is actually used as the classifier's current value. For example, for a default classifier at the Product level, a check is made that this classifier is not set in the contract itself (if the classifier is set at the contract level, actions are not performed for the contract). For a default classifier at the contract subtype level, a check is made for the classifier in the contract itself and at the Product level (if the classifier is set in the contract or at the Product level, actions are not performed for the contract), etc.

- For a number of hardcoded contract classifiers (in particular with the codes ABU and DATA_ERASURE), actions are performed that are preset in Way4. If certain additional actions must be performed for selected contracts, specify these actions in a custom procedure CUST_OBJECT_ACTION.
- Actions that must be performed for contract classifiers with arbitrary codes must be specified in a custom procedure CUST_OBJECT_ACTION.
- In the CUST_OBJECT_ACTION procedure, in addition to actions that must be performed for selected contracts, the classifier's old and new value must be specified. For more information, contact OpenWay.



The menu item "Apply Default Classifier Changes" can be used for classifiers that are marked with the DEFAULT_FROM tag with the values "Main Contract", "Top Contract", "Any Contract" in the *Applies To* field. I.e. for classifiers that can be set at the level of the contract itself or in a Product. For classifiers with the "Institution" and "Product" values in the *Applies To* field, this menu item is not used.

The menu item "Apply Default Classifier Changes" does not set the classifier value that is specified in the *New Value* field for a Product/subtype/financial institution or for a contract. This menu item only makes it possible to initiate actions related to a classifier value.

1.4 Configuring Rules for Using Classifiers

1.4.1 Changing Values of Client or Contract User Classifiers

In Way4 user classifiers can be assigned to clients and contracts.

When an attempt is made to assign a system classifier value to a client or contract, for example, using custom procedures, the message "Classifier <> is standard and cannot be set directly" is shown.

1.4.1.1 Changing a Classifier Value when an Event Opens

Rules are set for assigning (changing) a user classifier value when an Event opens in the "Classifier Actions" form (Full → Configuration Setup → Common Handbooks → Classifier Actions) and its child form, "Rules for <Event name>", see [figure](#).

The screenshot shows two windows side-by-side. The left window is titled 'Classifier Actions' and contains a table with columns: Group Code, Code, Name, Event Code, Action Code (Custom), Is Active, Date From, and Date To. It has two rows: one for MST with TAC2 and Set contract classifier to value 2, and another for MST with TAC1 and Set contract classifier to value 1. The right window is titled 'Rules for Set contract classifier to value 1' and contains a table with columns: Action Rule, Classifier, and Classifier Value. It has one row: From OK, Test contract classifier, and Test value 1. Both windows have 'Ins', 'Del', and 'Query' buttons at the bottom.

Group Code	Code	Name	Event Code	Action Code (Custom)	Is Active	Date From	Date To
MST	TAC2	Set contract classifier to value 2	Card Event A		Yes	00/00/0000	00/00/0000
→ MST	TAC1	Set contract classifier to value 1	Card Event B		Yes	00/00/0000	00/00/0000

Action Rule	Classifier	Classifier Value
From OK	Test contract classifier	Test value 1

Setting rules for assigning classifier values according to an Event

In the "Action" form, the Event is specified that when opened causes a change in a classifier value.

The "Action" form contains the following fields:

- *Group Code* – classifier group code. Used for additional grouping of classifiers. This field is filled in from the keyboard.
- *Code* – record code (arbitrary value unique within this form's list). Used for additional grouping of the list. This field is filled in from the keyboard.
- *Name* – semantic name for the Event.
- *Event* – name of the Event type that when opened causes classifiers set in the "Rules..." form to be assigned the values specified in that form.
- *Action Code (Custom)* – the code of the custom procedure that when executed causes classifiers set in the "Rules..." form to be assigned the values specified in that form.
- *Is Active* – indicates whether the record is active:
 - "Yes" – the record is active. Opening of an Event will activate settings defined in the "Rules" form.
 - "No" – the record is inactive. Opening of an Event will not activate settings defined in the "Rules" form.
- *Date From, Date To* – fields for entering dates to specify the time interval during which this record is active (these fields are filled in when the "Yes" value is set in the *Is Active* field).

In the child form "Rules for <Event name>", that opens when the [Rules] button in the "Actions" form is clicked (see [figure](#)), the new classifier value is specified; moreover, a condition can be set that if executed successfully will change the classifier value.

The "Rules for..." form contains the following fields:

- *Action Rule* – condition for changing the classifier value:
 - "From Ok" – the classifier value is only changed if the current classifier value's *Is OK Value* parameter (specified in the *Classifier* field) is set to "Yes".

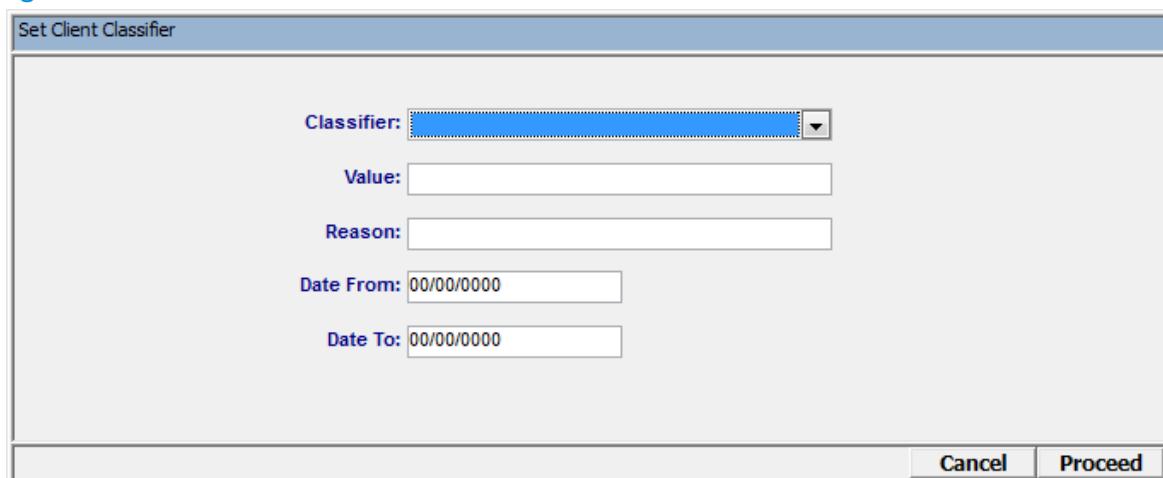
- "Nor Higher Severity" – the classifier value (specified in the *Classifier* field) is only changed if the priority of the current classifier value does not exceed the priority of the value specified in the *Classifier Value* field.
If the *Action Rule* field is not filled in, when an Event opens, the classifier will be assigned the value specified in the *Classifier Value* field.
- *Classifier* – classifier name. The value is selected from a list of user classifiers registered in the system.
- *Classifier Value* – new classifier value. The value is selected from a list of values set for this classifier.

If the *Classifier Value* field is not filled in, when an Event opens, the classifier will be assigned the default value specified in the *Default Value* field of the "User Classifiers" form, see the section "[Configuring Classifiers](#)". The default value is generally used the first time a classifier is assigned to a client or contract.

1.4.1.2 Manually Changing Classifier Values

User classifier values are manually assigned (changed) in the following forms:

- In the client form (for example, "Issuing → Contract Input & Update → Issuing Contracts (Private) → [Client]").
 - To assign a classifier value, click the [Action] button in the client form, and execute the context menu command "Set Classifier". The "Set Client Classifier" form will open (see [figure](#)).



The screenshot shows the "Set Client Classifier" dialog box. The window title is "Set Client Classifier". Inside, there are five input fields: "Classifier" (a dropdown menu), "Value" (a text input field), "Reason" (a text input field), "Date From" (a text input field with the value "00/00/0000"), and "Date To" (a text input field with the value "00/00/0000"). At the bottom right, there are two buttons: "Cancel" and "Proceed".

Manually assigning classifier values to a client

The form contains the following fields:

- *Classifier* – classifier name.
- *Value* – classifier value to be assigned to the client.
- *Reason* – comments (reason for assigning the classifier value).
- The *Date From*, *Date To* fields make it possible to set the classifier value's effective period:

- *Date From* – start date of the period when this classifier value is active.
- *Date To* – end date of the period when this classifier value is active.
- After filling in the fields, click [Proceed]. The client will be assigned the set classifier value.

When classifier values have a date in the future (the *Date From* field is filled in), a hardcoded Event that sets this value for the contract/client will open on this date:

- If the classifier value has a certain effective period (the *Date To* field is filled in), an Event with the CLS code opens. The Event will close automatically on the date specified in the *Date To* field.
- If *Date To* is not set for the classifier value, an Event with the CLS_UNIQUE code will open. The Event closes immediately after the corresponding classifier's value has been set.

When setting a classifier with a future date is repeated, a check is made of whether dates overlap. If the start and/or end date of the effective period for the classifier value falls in the effective period of an existing record, the error message "Waiting CLS-event found for the classifier "<Classifier Code>" for the intersecting period (<Date From> – <Date To>)" is generated. A check for overlapping dates will be made for Events with the CLS code and with the CLS_UNIQUE code.

- In the contract form (for example, "Issuing → Contract Input & Update → Issuing Contracts (Private)").

To assign classifier values, click the [Action] button in the contract form and execute the "Set Contract Classifier" or "Set Client Classifier" context menu command. The "Set Contract Classifier" or "Set Client Classifier" form will open, identical to the form above in [figure](#).

- In the "Customer Service" form (Customer Service → Customer Service).

To assign a classifier value, in the "Customer Service" form, select the required contract, click the [Set] button and execute the context menu command "Contract Classifier" or "Client Classifier". The "Set Contract Classifier" form or "Set Client Classifier" form will open. These forms are the same as the "Set Client Classifier" form (see [figure](#)).

After filling in the fields, click the [Apply] button. The contract will be assigned the set classifier value.

1.4.1.3 Changing Classifier Values using the Advanced Applications Module

The values of client or contract user classifiers can be changed using the Advanced Applications Module.

For more information, see the document "Advanced Applications R2".

1.4.2 Opening an Event when Assigning a Classifier Value

An Event that will automatically open when a user classifier value is assigned to a client or contract is configured directly in the classifier value parameters in the "Values for <classifier name>" form (Full → Configuration Setup → Common Handbooks → User Classifiers → [Value]), see [figure](#).

The Event type name is selected from a drop-down list in the *Result Event* field.



The Event must be registered in the contract's Service Package.

Values for Test client classifier										b	x
	Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To		
→	3	Test value 1	CL_TEST_VALUE_1		Yes		Yes	00/00/0000	00/00/0000		
	1	Test value 3	CL_TEST_VALUE_3		No		Yes	00/00/0000	00/00/0000		
	1	Test value 2	CL_TEST_VALUE_2		Yes		Yes	00/00/0000	00/00/0000		

Ins **Del** **Query**

Configuring an Event that opens when a classifier value is assigned

When a classifier value changes, the Event that opened when the previous classifier value was set will be closed.

1.4.3 Performing Actions Depending on Classifier Values

Execution of actions in the system depending on classifier values assigned to a client and/or contract is configured using tags from the IF_CS group, in particular:

- IF_CS_TYPE=<classifier code>; – this tag sets the classifier type. A classifier code from the *Code* field in the "User Classifiers" form (Full → Configuration Setup → Common Handbooks → User Classifiers) is specified as the tag value.
- IF_CS_VALUE=<classifier value code>; – this tag sets the classifier value for which an action will be executed. If the value specified in the tag corresponds to the classifier value of the contract/client, the action is executed. A classifier value code from the *Code* field of the "Values for <classifier name>" form (Full → Configuration Setup → Common Handbooks → User Classifiers → [Values]) is specified as the tag value. Several codes separated by commas can be specified as the value of this tag.
- IF_NOT_CS_VALUE=<classifier value code>; – this tag sets the classifier value for which an action will not be executed. If the value specified in the tag corresponds to the classifier value of the contract/client, the action is not executed. A classifier value code from the *Code* field of the "Values for <classifier name>" form (Full → Configuration Setup → Common Handbooks → User Classifiers → [Values]) is specified as the tag value. Several codes separated by commas can be specified as the value of this tag.
- IF_CS_TYPE_FOR – this tag is used together with IF_CS tags to redefine the contract for which these checks are made:
 - "BILLING" – for the account contract from which settlement is made.
 - "LIABILITY" – for the higher-ranking contract in the Liability hierarchy.
 - "TOP" – for the top contract in the hierarchy.
 - "BASE" – for the main contract in a "Main/Sub" hierarchy, with which this contract is related.
- It is possible to set a check of several classifiers for the contract using the IF_CS_NUMB, IF_CS_TYPE<N>, IF_CS_VALUE<N>, IF_NOT_CS_VALUE<N>, and IF_CS_TYPE_FOR<N> tags.

For more information, see the section "Control tags".

These tags can be used to configure execution of the following actions:

- Configuring selection of a Service for processing transactions (see the section "[Selecting a Service](#)").
- Attaching an additional Service Package (see the section "[Attaching an Additional Service Package](#)").
- Configuring activation of a usage limiter (see the section "[Activating a Usage Limiter](#)").
- Configuring opening of an Event (see the section "[Opening an Event](#)").
- Configuring opening an Event created in a Product (see the section "[Opening an Event Configured in a Product](#)").
- Configuring activation of a standing payment order (see the section "[Generating a Payment Order Document](#)").
- Configuring sending client messages (see the section "[Generating Client Messages](#)").
- Assigning tariff domains (see the section "[Assigning a Tariff Domain](#)").
- Selecting tariffs (see the section "[Selecting a Tariff](#)").
- Configuring selection of a routing contract (see the section "[Configuring Routing](#)").
- Configuring selection of a preferred counterparty (see the section "[Selecting a Preferred Counterparty](#)").

1.4.3.1 Selecting a Service

Additional conditions for selecting a Service to process transactions are set using tags from the IF_CS group in the form with full information about the Service (for example, "Full → Configuration Setup → Products → Service → [Source] → [Full Info]") in the *Service Details* field.

A Service that is appropriate according to all other parameters for processing a transaction will be used only when the conditions set with the tags from the IF_CS group are met.

For details on Services, see the document "Way4 Service Packages".

1.4.3.2 Attaching an Additional Service Package

Conditions for attaching an additional Service Package using IF_CS group tags are configured in the form with full information about the additional Service Package (for example, "Full → Configuration Setup → Products → Service Packs → [Additional]") in the *Apply Rules* field.



Conditions for attaching an additional Service Package are only analyzed if "Yes" is specified in the *Active by Default* field of the additional Service Package.

IF_CS conditions can be set in certain Services of an Additional Service Package (see the section "[Selecting a Service](#)"), and not in the entire Package.

For details on additional Service Packages, see the document "Way4 Service Packages".

1.4.3.3 Activating a Usage Limiter

For a usage limiter, tags from the IF_CS group are configured in the form with detailed information about the limiter (Full → Configuration Setup → Products → Service Packs" → [Usage] → [Details]) in the *Spc Params* field.

A usage limiter is activated only if the conditions set by the IF_CS tags are met.

For more information about usage limiters, see the document "Usage Limiters".

1.4.3.4 Opening an Event

For Events, tags from the IF_CS group are configured in the form with detailed information about the Event type (for example, "Full → Configuration Setup → Products → Issuing Private Products → Issuing Event Types → [Full Info]") in the Special Params field. *Special Params*.

An Event opens and is processed (actions specified in configuration of the corresponding Event type are executed) only when the conditions set by the IF_CS tags are met.

For details on Events, see the document "Events".

1.4.3.5 Opening an Event Configured in a Product

For an Event configured in a Product, tags from the IF_CS group are set in the "Start Events for <name of Product>" form (Full → Configuration Setup → Products → Product Definition → Products → [Full Info] → [Start Events]) in the *Custom Rules* field.

An Event opens and is processed only when conditions set by the IF_CS tags are met.

For more information, see the section "Event Setup" of the document "Products and Contract Subtypes".

1.4.3.6 Generating a Payment Order Document

In the standing payment order form, tags from the IF_CS group are configured in the *Posting Details* field (Full → Configuration Setup → Products → Account Schemes → [Definition] → [SO Full]).

A payment order document is only generated if the conditions set by the IF_CS tags are met.

For more information about payment orders, see the document "Standing Payment Orders".

1.4.3.7 Generating Client Messages

Conditions for sending messages to clients are set by tags from the IF_CS group in the form for configuring message templates (Full → Configuration Setup → Products → Issuing Private Products (Issuing Corporate Products) → Issuing Event Types → [Messages]). Tags are specified in the *Message Details* field.

Messages generated when an Event is opened and processed (Event Messages) are only sent if the conditions set by the IF_CS tags are met.

For more information, see the document Configuration of Client Messages".

1.4.3.8 Assigning a Tariff Domain

In tariff domain parameters, IF_CS group tags are configured in the *Apply Rules* field.

A tariff domain is assigned to a contract only when the conditions set with IF_CS group tags are met.



The Advanced Tariff Management module is not included in the Way4 basic configuration and is delivered according to an additional agreement with OpenWay.

1.4.3.9 Selecting a Tariff

In tariff parameters, tags of the IF_CS group are configured in the *Apply Rules* field.

When a transaction is made on a contract, a tariff will only be selected if the conditions set by the IF_CS group tags are met.



The Advanced Tariff Management module is not included in the Way4 basic configuration and is delivered according to an additional agreement with OpenWay.

1.4.3.10 Configuring Routing

Additional conditions for selecting a routing contract are set by tags from the IF_CS group in the "Routing for <name of group>" form, used to configure Interchange routing contract tables belonging to a BIN group (Full → Configuration Setup → Routing → BIN Groups → [Routing]). Tags are specified in the *Custom Rules* field.

A routing contract that meets all other parameters for processing a transaction will only be used if the condition set by the IF_CS tags is met.



These configurations are only used in acquiring; that is, to specify a routing contract for a card that is not registered in Way4.

1.4.3.11 Selecting a Preferred Counterparty

Additional conditions for selecting (checking) a preferred counterparty using IF_CS group tags are configured in the "Preferred Details" form (Full → Configuration Setup → Products → Service Packs → [Preferred] → [Full Info]). Tags are specified in the *Custom Params* field.

For more information, see the document "Preferred Counterparties".

1.4.3.12 Setting Classifier Values

Conditions for setting classifier values depending on the value of another client or contract classifier are set using tags of the IF_CS group. Tags are set in the *Add Info* field of a classifier's value.

If a classifier set as a condition with IF_CS group tags is not specified in the corresponding client/contract, configured conditions will not be taken into account when setting a dependent classifier.

In Way4 it is possible to configure conditions for setting a client or classifier value depending on a classifier without a fixed list of values (using the IF_PARM and IF_PARM_VALUE tags, see the section "[Classifiers without a Fixed List of Values](#)").

1.4.4 Generating a Product List for a Client



This functionality is provided according to a separate agreement with the Way4 vendor.

A list of Products that can be offered to a client is generated for display in the "Offers for <client name>" form that is opened from the customer service form (Customer Service → Customer Service → [Client] → [Offers]).

The list is generated as follows: in the properties of the corresponding Products, set the client classifier values for which a given Product will be available. These values are set in the "Product Choice Rules for <Product name>" form (Full → Configuration Setup → Products → Product Definition → Products → [Full Info] → [Choice Rules]), see [figure](#).

Status	Value	Custom Rules
Product Group	Issuing Debit	

Setting rules for assigning classifier values according to an Event

The form contains the following fields:

- **Status** – classifier name. The value is selected from a list of client user and system classifiers registered in the system for this client type (the value of the *Client Cat* field of the "User Classifiers" form).



Client user and system classifiers are classifiers for which the "Client" value is set in the *Applies To* field of the "User Classifiers" (Full → Configuration Setup → Client and Contract Classifiers → User Classifiers).

- **Value** – classifier value. The value is selected from a list of values for the classifier specified in the **Status** field.
- **Custom Rules** – field for specifying custom rules.



When several value of one classifier are added to the form, these conditions will be joined using the "OR" operator. When several values of different classifiers are added to the form, these conditions will be joined with the "AND" operator.

Example.

Two client classifiers are registered in the system: "Social status" and "Country of residence". The following classifier values are set for the Product:

1. Social status = "Retired"
2. Social status = "Student"
3. Country of residence = "France"

This means that this Product will be available to retirees and students from France.



Without these settings, the entire list of Products registered in the system for this financial institution and client type will be shown in the "Offers for <client name>" form (Customer Service → Customer Service → [Client] → [Offers]) for the client.

1.5 Viewing Classifier Data

1.5.1 System Classifiers and their Values

The list of system classifiers configured in the system is viewed in the "User Classifiers" form (Full → Configuration Setup → Common Handbooks → User Classifiers), see figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)".

1.5.2 User Classifiers and their Values

The list of user classifiers configured in the system and their values can be viewed and edited in the "User Classifiers" (Full → Configuration Setup → Common Handbooks → User Classifiers) and "Values for <classifier name>" (Full → Configuration Setup → Common Handbooks → User Classifiers → [Values]) forms, respectively.

The forms' fields are described in the section "[Configuring Classifiers](#)".

1.5.3 Viewing Client and Contract Classifier Data

Actions with classifiers (assigning and/or changing the values of system and user classifiers) are recorded in a special log.

The classifier log is used to perform the following tasks:

- To determine a stored classifier's current value assigned to a client and/or contract – done automatically when it is necessary to execute an action requiring advance analysis of classifier values.
- For recording the history of changes to classifier values – the history is used, for example, to restore the state of a classifier to the time preceding processing of an Event that caused a change in the classifier value. Classifier state is restored when the corresponding Event closes.

Information about current values of user classifiers assigned to a client and/or contract can be viewed in the following ways:

- In the form "Classifiers for <contract name>":
 - Opened in the issuing or acquiring module. For example, "Issuing → Contract Input & Update → Issuing Contracts (Private) → [Classifiers]", see [figure](#).
 - Opened from the customer service form Customer Service → Customer Service → [Classifiers]). This form is the same as the form shown in [figure](#).

The form "Classifiers for <contract name>" contains a list of all the contract's and corresponding client's classifiers.

Classifiers for Test Client 3564						
Set For	Classifier	Classifier Value	Previous Value	Value Date	Value Description	Officer
001-P-994499	Product Group	Issuing Debit		00/00/00 00:00:00		
001-P-994499	Contract Sub Type	555-Private Client Account		00/00/00 00:00:00		
001-P-994499	Service Pack			00/00/00 00:00:00		
001-P-994499	Account Scheme			00/00/00 00:00:00		
001-P-994499	Behavior Type			00/00/00 00:00:00		
001-P-994499	Contract Status			00/00/00 00:00:00		
Client	Country			00/00/00 00:00:00		
001-P-994499	Client Type	Private Resident		00/00/00 00:00:00		
001-P-994499	Test contract classifier			00/00/00 00:00:00		
Client	Test client classifier	3 Test value 1 (OK)		28/04/12 09:56:57t		SUPERUSER

Query

"Classifiers for ..." form opened from the contract form

The form contains the following fields:

- *Set For* – the object to which this classifier value is assigned. The contract name or the "Client" value is automatically shown as the classifier value.
- *Classifier* – classifier name.
- *Classifier Value* – the current value of the classifier.
- *Previous Value* – the previous value of the classifier.
- *Value Date* – the date and time the current classifier value was assigned.
- *Value Description* – comments specified when assigning a current classifier value. Comments can be specified when manually assigning a classifier value (see the section "[Manually Changing Classifier Values](#)").
- *Officer* – the user who assigned the classifier value.



In the "Classifiers for..." form, classifiers assigned to a contract and/or client are shown, as well as all classifiers (user and system) available to this contract or client, but not yet assigned. The **Value** field is not filled in for such classifiers.

- In the form "Classifiers for <client name>", opened in the issuing or acquiring module. For example, "Issuing → Contract Input & Update → Issuing Contracts (Private) → [Client] → [Classifiers]". This form contains only client classifiers (only records with the "Client" value are shown in the **Set For** field), see [figure](#).

Classifiers for SL_123		<<	<	>	>>	1 of 7	b	x
Status Type	Value	Previous Value		Value Date				
→ Institution Bank Code	5555			00/00/00 00:00:00				
Branch				00/00/00 00:00:00				
Country				00/00/00 00:00:00				
test				00/00/00 00:00:00				
CLL_DECEASE	1 No (OK)			00/00/00 00:00:00				
CLL_COUNTRY_CHANGED	1 No (OK)			00/00/00 00:00:00				
Institution Branch Code	Крайний север			00/00/00 00:00:00				

Query

The "Classifiers for ..." form opened from the client form

The [Details] and [History] buttons become available when records of classifiers are selected in the "Classifiers for..." form (changes in the values of these classifiers are registered in the classifier log, see the section "[Classifier Types](#)").

Clicking the [History] button in the "Classifiers for..." form opens the "History..." form that contains the history of changes to this classifier's values (see [figure](#)).

The [Details] button is used for convenient viewing of "Classifiers for..." form records.

History for Contract Sub Type, 555-Private Client Account, 001-P-000070										<<	<	>	>>	1 of 1	b	x
Client	Contract	Classifier	Classifier Value	Previous Value	Date From	Date To	Status Date	Officer	History Type	Description						
→ 001-P-000070	Contract Sub Type	555-Private Client Acco			27/10/2009	01/01/2010	27/10/09 00:00:00	SUPERUSER	Active							

Query

History of changes to classifier values

The History Type field shows the classifier's status. Possible values:

- "Active" – active value of the classifier.
- "InActive" – historical value of the classifier.
- "Reversed" – classifier value that was reversed when correcting transactions with the Reversal Management module.
- "Waiting" – value for a future date (value that has not been set yet).

If the classifier value was assigned according to an Event, the **Event Action** field shows the Event action under which this classifier value was assigned.

Possible values:

- "On Open" – when the Event opened.
- "On Close", "On Reject" – when the Event closed in various ways. For more information see the section "Events Log" of the document "Events".

Detailed information about an Event is available by clicking the [Event] button in the "History..." form.

- Contract classifiers ([For Contract] button) and client classifiers ([For Client]) button can be viewed in the "Client and Contract Classifiers" form ("Issuing → Customer Support → Client and Contract Classifiers", or "Acquiring → Customer Support → Client and Contract Classifiers").

2 Domain-based classifiers

2.1 Terminology

Classifier domain – used for grouping classifiers. A domain makes it possible to select a group of user classifiers that will be available to set for contracts and clients. For a contract or client to use classifiers included in a domain, the contract or client must be assigned a classifier domain. This allows a set of available values to be specified for each classifier which can be set for contracts and clients.

A classifier domain can be set for a contract individually or linked with a contract through a Product or financial institution. A domain can only be linked with a client through a financial institution.

Each domain has a specific domain type.

Domain type – attribute according to which contracts are classified. For example, the "Product line" domain type. For this type, the following domains for classifying contracts can be configured: "Debit Products", "Credit Products", "Credit Products using installation loans". For a domain type, object categories are specified (contract, financial institution, Product), to which domains of this type can be assigned, as well as a default domain.

Domain-Based Classifier – user classifier included in a domain. For this classifier to be available to contracts and clients, they must be assigned the domain that includes it. The classifier can be included in the domain in full or with a limited set of allowed values. One classifier can be included in several domains. The same classifier can have a different set of allowed values, depending on the domain, and different default values for each domain.

2.2 Configuring domain-based classifiers

Steps for setting up access to domain-based classifiers:

- Configure domain types and domains in the "User Classifiers" form. A classifier with the "Domain Type" category is a domain type and this classifier's values are domains. See the section "["Registering domain types and domains"](#)".
- Include a classifier in a domain. A link is set between regular classifiers shown in the "User Classifiers" form and domains (classifiers with the "Domain Type" category). See the section "["Including a classifier in a domain"](#)".
- Assign the domain to a financial institution, Product or contract. Set the value of a "Domain Type" classifier for a financial institution, Product or contract. This is done in the standard way. See the section "["Changing client or contract user classifier values"](#)".

Contracts with this domain (which is set directly or through a Product/financial institution) will have access to the classifiers in the domain. A client will have access to classifiers in a domain which is set for a financial institution.

At any point in time, only one domain of a certain type can be set for a financial institution/Product/contract. This means that only one "Domain Type" classifier value can be set for a financial institution/Product/contract. For example, the "Product Type" domain type with the values (domains) "Debit", "Credit" can be used for a Product. Classifiers from one of the domains "Debit" or "Credit" will be available to a contract, depending on which domain is assigned to this contract's Product. Several domains of different types can be assigned to a financial institution/Product/contract.

Examples of splitting access to domain-based classifiers:

- By Product. The "Insurance" classifier has five values (5 insurance options). For Product 1 all five values are available, and for Product 2, three values are available. Accordingly, three of the classifier's values can be used for contracts created with Product 2.
- By financial institution:
 - A separate classifier (classifier 1 and classifier 2) is configured for each of two financial institutions (FI1 and FI2). All the values of classifier 1 can be set for a contract that belongs to FI1. Classifier 2 is not available to FI1's contracts. All the values of classifier 2 can be set for a contract that belongs to FI2. Classifier 1 is not available to FI2's contracts.
 - The same classifier is used for two different financial institutions. A different set of this classifier's value is available to each financial institution.

2.2.1 Registering domain types and domains

Domain types are registered in the "User Classifiers" form (Full → Configuration Setup → Common Handbooks → User Classifiers). Domains are registered in the "Values" child form, see [figure](#).

User Classifiers											Log Changes	2 of 3	X
Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Domain-based	Add Info		
Base Style	BASE_STYLE		Domain Type	Domain 1	Institution				Primary			Own Value or Reason	
Product Type	PRODUCT_TYPE		Domain Type	Debit	Product				Primary			Own Value or Reason	
Some Domain Type	SOME_DOMAIN_TYPE		Domain Type	Domain 2	Any Contract				Primary			DEFAULT_FROM=PRODUCT_F_;	Own Value or Reason

Ins	Del	Query	Validate	Values	Mapping	Domain-Based					1 of 5	b	x
Values for Product Type													
Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To					
0	Balance Transfer	B				Yes	00/00/0000	00/00/0000					
0	Credit	C				Yes	00/00/0000	00/00/0000					
0	Credit + Instalment	CI				Yes	00/00/0000	00/00/0000					
0	Debit	D				Yes	00/00/0000	00/00/0000					
0	Technical Account	T				Yes	00/00/0000	00/00/0000					

"User Classifiers" form and "Values" child form

Fill in the following fields of the "User Classifiers" form when registering a domain:

- *Name* – domain type name.
- *Code* – domain type code.
- Specify "Domain Type" in the *Category* field.
- For the domain type, specify the object category (contract, financial institution, Product) for which this type of domain will be used. Setup options:
 - Using the *Applies To* field:
 - "Institution" – the domain is specified for a financial institution. It is not possible to set the domain for a contract.

- "Product" – the domain is specified for a Product. It is not possible to set the domain for a contract.
- "<> Contract" – the domain is set for a contract.
- Using the *Applies To* field and the DEFAULT_FROM tag – if the domain can be set in several places (for example, for a contract and for a Product), use the "<> Contract" value in the *Applies To* field and the DEFAULT_FROM tag in the *Add Info* field. The tag determines where the default classifier is stored which is used if a classifier was not found for the contract, see the sections "[Configuring default classifiers](#)" and "[Tags used when working with classifiers](#)" of the document "[Setup Tags](#)". The values "PRODUCT" and "F_I" can be used as the tag's values. The CONTR_SUBTYPE value is not used. If the domain can be defined for a financial institution, Product and contract, use the DEFAULT_FROM=PRODUCT,F_I; tag.



"Client" or "CP Client" cannot be set in the *Applies To* field. The availability of a domain-based classifier for a client is determined by whether the client belongs to the financial institution to which the domain is assigned.

- *Default Value* – default domain. This field is mandatory for "Domain Type" classifiers. The default value is used if a classifier was not found for a contract, Product or financial institution (information about determining where a domain is stored using the *Applies To* field and DEFAULT_FROM tag is provided above, and in the section "[Configuring default classifiers](#)"). The default domain in the *Default Value* field can be used, for example, when resetting a domain and deleting a "Domain Type" classifier value set earlier for a contract/product/financial institution. A default domain can be a technical domain that doesn't include classifiers. A default domain makes it possible to set rules for working with previously set domain-based classifiers when resetting the domain. See the section "[Default domain](#)".
- The *Domain Based* field is not filled in.
- The *Domain Code* field is not filled in.

Fill in the following fields when registering domains in the "Values" child form (see [figure](#)):

- *Name* – domain name.
- *Code* – domain code.

2.2.2 Including a classifier in a domain

When including a classifier in a domain, the availability of all the classifier's values is specified or certain values that can be set for contracts and clients to which the domain is assigned.

Procedure for including a classifier in a domain:

- For a user classifier, in the "User Classifiers" form (see figure in the section "[Registering domain types and domains](#)") select a domain type ("Domain Type" classifier) in the *Domain-based* field. The buttons [Domains] and [Domain-Based] will become available, see [figure](#). Specifics of setup:
 - A classifier with "Client", "Institution" in the *Applies To* field can only be linked with a domain type with "Institution" in the *Applies To* field.

- A classifier with "Product" in the *Applies To* field can only be linked with a domain type with "*Product*", "*Institution*" in the *Applies To* field.
- The DEFAULT_FROM tag can't be used for a domain-based classifier.
- A domain-based classifier cannot be linked with more than one domain type.
- A "Domain Type" classifier cannot simultaneously be a domain-based classifier (the *Domain-based* field cannot be filled in for a classifier with "Domain Type" in the *Category* field).



After a domain-based classifier has been set for a financial institution/
Products/contracts, the *Domain-based* field must not be changed.

- To set up access to a classifier, click the [Domains] button to open the "Domains" form (see [figure](#)). For each domain that must include the classifier, add a separate row in the "Domains" form. Only one record in the "Domains" form can be configured per domain. By default, the form doesn't contain records, since a classifier isn't included in any domain. The form's fields:
 - *Domain* – domain in which a classifier is included. A domain is selected from the list of domain type values (list of values for the classifier specified in the *Domain-Based* field in the previous step). This field is mandatory.
 - *Availability* – access mode:
 - *Available* – the classifier is fully included in the domain. This means that all the classifier's values can be set for a client or contract to which the domain is assigned.
 - *By Values* – when "By Values" is selected, use the [Values] button to select the classifier's available values, see [figure](#) and the description [below](#).
 - "Not Available" – the classifier is not included in the domain. This is the default value. A row for a domain with the "Not Available" value is the same as the domain not being present in the "Domains" field. Used to set up rules for changing a domain to the default domain, see the section "[Default domain](#)".
 - *Default Value* – the domain-based classifier's default value for this domain. This value is not filled in if "Not Available" is specified in the *Availability* field. If the *Availability* field contains "By Values", the default value must be included in the list of available values (see the description of the [Values] button). The default value is used if a domain-based classifier is not found for the contract. See the section "[Domain-based classifier default value](#)".
 - *Change Rule* – rules for working with a domain-based classifier when a contract's domain is changed. See the description in the sections "[Changing a domain](#)" and "[Default domain](#)".
 - *Add Info* – field for specifying tagged parameters. Reserved for forward compatibility.
- When "By Values" is specified in the *Availability* field, the [Values] button becomes available in the "Domains" form. Click the button and in the form that opens, set up the list of domain-based classifier values that are available for the domain, see [figure](#). By default, the form is empty (no available values). The form's fields:
 - *Status Value* – classifier value.

- *IsAvailable* – select "Yes" for the value to become available.
- The "No" value (classifier value unavailable) is reserved for forward compatibility.

The [figure](#) shows an example of including the "Insurance Type" domain-based classifier in the "Product Type" domain to resolve the following tasks:

- A "Product Type" domain type is registered with the "Credit", "Debit", "Credit+Instalment" domains, etc. (see figure in the section "[Registering domain types and domains](#)").
- An "Insurance Type" domain-based classifier is registered with three values (three types of insurance). The classifier is included in the "Debit", "Credit", and "Credit+Instalment" domains.
- For the "Debit" domain, two of the three "Insurance Type" classifier values are available. For the "Credit" and "Credit+Instalment" domains, all three of the classifier's values are available. The "Insurance Type" classifier is not configured (is unavailable) for the "Technical Account" technical domain (default domain). See the section "[Default domain](#)".

Configuring the link between a classifier and domain

2.3 Domain-based classifier parameters

Information about classifiers that are included in a domain can be obtained in the following ways:

- Links with a specific classifier's domains:
 - Click the [Domain-Based] button in the "User Classifiers" form (see [figure](#)) for a classifier with the *Domain-based* field. The "Domain-Based" form will open.

Classifier's links with a domain

The "Domain-Based" form contains summary information for a domain-based classifier's values in all the domains of the corresponding type. For each value, the classifier shows information about whether this value is included in the domain, and additional information, if any, from the "Domains" form (for example, rules for changing the domain):

- If a classifier's value is not included in a domain, a row with "Not Available" is displayed in the *Domain Availability* field and "No" in the *Value Availability* field.
- If a classifier's value is included in the domain and the classifier is entirely included in the domain, a row will be displayed with "Available" in the *Domain Availability* field and "Yes" in the *Value Availability* field.
- If certain values for a classifier are included in a domain, a row will be displayed with "By Values" in the *Domain Availability* field and "Yes" or "No" in the *Value Availability* field.

The [figure](#) shows the "domain-cs" classifier with two values (name1 and name2). For the classifier, the "OTS Domain Type" domain type is specified, which contains three domains. The classifier is included in only one of this type's three domains. The "Domain-Based" form shows information about whether or not the classifier's values are available for all three domains that belong to "OTS Domain Type".

- For information about a certain classifier value's link with domains, click the [Domain-Based] button in the "Values" form (User Classifiers → [Values], see [figure](#)). The button is used for quick access to information about domains in which a specific classifier values is available.
- Information about all classifiers included in a specific domain or in all domains for a specific type:
 - For information about a domain type (for an "OTS Domain Type" classifier with the "Domain Type" category) click the [Domain-Based] button in the "User Classifiers" form. See [figure](#).
 - For information about a specific domain (for a classifier value with the "Domain Type" category) click the [Domain-Based] button in the "Values" form.

Domain-Based for OTS Domain Type												b
Domain-Based	Classifier	Classifier Default Value	Value	Value Availability	Domain	Domain Availability	Domain Default Value	Domain Change Rule	Domain Add Info	Domain Value Availability	Domain Value Add Info	1 of 15
OTS Domain Type	domain_cs_test		name2	No	Domain 1	Not available						
OTS Domain Type	domain_cs_test		name1	No	Domain 1	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 3	No	Domain 1	By Values	Value 2					
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 2	No	Domain 1	By Values	Value 2					
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 1	No	Domain 1	By Values	Value 2					
OTS Domain Type	domain_cs_test		name2	No	Domain 2	Not available						
OTS Domain Type	domain_cs_test		name1	No	Domain 2	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 3	No	Domain 2	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 2	No	Domain 2	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 1	No	Domain 2	Not available						
OTS Domain Type	domain_cs_test		name2	No	Domain 3	By Values	name1	Keep		No		
OTS Domain Type	domain_cs_test		name1	Yes	Domain 3	By Values	name1	Keep		Yes		
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 3	No	Domain 3	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 2	No	Domain 3	Not available						
OTS Domain Type	OTS Domain-Based Classifier	Value 1	Value 1	No	Domain 3	Not available						

List of classifiers included in all domains of a specific type

2.4 Domain-based classifier default value

A domain-based classifier's default value is used when a contract classifier value is requested if a classifier is not set for the contract. This classifier is included in the domain that is assigned to the contract.

A default value is searched for in the following order:

- The domain-based classifier's default value set in the *Default Value* field of the "Domains" form (see the section "[Including a classifier in a domain](#)").
- The default value set for this classifier in the *Default Value* field of the "User Classifier" form is used, see the section "[Configuring user classifiers with arbitrary codes](#)". This value is used if it is available for the current domain (i.e. the classifier is entirely included in the domain or this value is included in the domain; see the section "[Including a classifier in a domain](#)").



The DEFAULT_FROM tag is not used for a domain classifier; i.e. default values set for a Product, financial institution or contract subtype are not used.

2.5 Changing a domain

A domain can be changed:

- Directly when the value of a "Domain Type" classifier assigned to the financial institution/Product/contract is changed.
- When a contract's Product is changed, or when moving a contract/client to a different financial institution.

2.5.1 Changing the domain for a financial institution/Product/contract

Changing a domain means changing the value of a "Domain Type" classifier assigned to a financial institution/Product/contract.

When a domain changes, the new and old domain may be found to be incompatible (domain-based classifiers from the old domain set for the contract). The new domain might have a different list of available domain-based classifiers, or this classifier might not be included in the domain.

Rules for changing a domain can be set up in a domain-based classifier's "Domains" form. For example, the requirement to check domain-based classifiers, rules for working with domain-based classifiers when a domain changes.



Note that domain-based classifiers can be checked and actions with these classifiers are possible only when a domain is changed for a contract. When a domain for a Product or financial institution is changed, no checks or actions are performed with domain-based classifiers.



A check is made for domain-based classifiers that are set for a contract. If at the time of the check, a domain-based classifier is not set for a contract, no actions are performed.

Setting rules to change a domain:

- Rules for changing a domain are configured in the *Change Rule* field of the "Domains" form for a domain-based classifier (see figure in the section "[Including a classifier in a domain](#)"). When changing a domain, the new domain's *Change Rule* field is analyzed. Field values:
 - "Keep" – no checks/actions with domain-based classifiers are performed. The domain-based classifier value that is set remains unchanged, even if this value or the entire classifier is not included in the new domain. After a domain has been changed, the contract classifiers form will show the following (see [figure](#)):
 - If the classifier is partially included in the new domain, but the current value set for the contract is not included in the domain, the "Classifiers" form will show a record for this classifier with information that the classifier value is not available in the current domain.
 - If the classifier is not included in the new domain, a record for this classifier will not be shown in the "Classifiers" form, although the classifier will remain set for the contract.

Classifiers for CARDHOLDER								<<	<	>	>>	1 of 2	b	x
	Set For	Classifier	Classifier Value	Previous Value	Value Date	Value Description	Officer							
→	001-P-462125	Domain Type	Domain2	Domain1	29/04/20 13:03:08		SUPERUSER							
	001-P-462125	Domain-based classifier	Value1 (NOT AVAILABLE for Domain) (deprecated Domain)		29/04/20 12:50:20		SUPERUSER							
		Query	Details	History										

Form with a contract's classifiers. The values of a domain-based classifier that is set are shown with information that the classifier is unavailable in the new domain

- "Keep Available" – if a domain-based classifier value set for a contract is included in the new domain, everything remains unchanged. The contract classifiers form shows information that the domain changed (see [figure](#)).

Classifiers for CARDHOLDER								<<	<	>	>>	1 of 2	b	x
	Set For	Classifier	Classifier Value	Previous Value	Value Date	Value Description	Officer							
→	001-P-462125	Domain Type	Domain1	Domain2	29/04/20 13:58:11		SUPERUSER							
	001-P-462125	Domain-based classifier	Value1		29/04/20 12:50:20		SUPERUSER							
		Query	Details	History										

Form with a contract's classifiers. A change in domain is shown without changes in the values of a dependent classifier

If the current value of the classifier is not included in the new domain, it will be cleared. The default value of this domain-based classifier will continue to be used for the contract (see the section "[Domain-based classifier default value](#)").

- "Set Default" – when a domain is changed, the domain-based classifier's default value defined for the new domain will be set for the contract and the old value will be cleared. See the description of the *Default Value* field in the section "[Domain-based classifier default value](#)".
- "Restricted" (default value) – if a domain-based classifier's value is not included in the list of the new domain's available values, changing the domain is not allowed.

2.5.2 Changing a contract's Product/financial institution or a client's financial institution

A contract's domain can be changed indirectly when a contract's Product is changed or when a contract/client is moved to a different financial institution, if the domain of the new Product/financial institution differs from the domain of the old Product/financial institution. In this case, domain-based classifiers are checked according to the rule specified in the *Change Rule* field of the domain-based classifier's "Domains" form (see figure in the section "[Including a classifier in a domain](#)").

Checks and actions when changing a domain are described in the section "[Changing the domain for a financial institution/Product/contract](#)". Details:

- When a client's financial institution changes, classifiers with the "Domain Type" category (domain types) and "Institution" in the *Applies To* field are checked. If a domain changed, domain-based classifiers with "Client" in the *Applies To* field are checked according to value in the *Change Rule* field. For example, when the value is "Restricted", if the current value of a domain-based classifier set for the client is unavailable in the new domain, changing the client's financial institution is not allowed.
- When a contract's financial institution changes, classifiers with the "Domain Type" category (domain types) and "Institution" in the *Applies To* field or the F_I value of the DEFAULT_FROM tag:
 - If the domain changed, a check is made that the domain has not been redefined for the Product or contract. If the domain has been redefined (with the corresponding settings of the *Applies To* field and DEFAULT_FROM tag), changing the financial institution doesn't cause the contract's domain to change and domain-based classifiers are not analyzed.
 - If the domain changed and the domain wasn't redefined for the Product or contract, domain-based classifiers with "<> Contract" in the *Applies To* field are checked according to the value in the *Change Rule* field. For example, when the value is "Restricted", if the current value of a domain-based classifier set for the contract is unavailable in the new domain, changing the contract's financial institution is not allowed.
- When a contract's Product changed, classifiers with the "Domain Type" category (domain types) and "Product" in the *Applies To* field or with the PRODUCT value of the DEFAULT_FROM tag are analyzed.
 - If the domain changed, a check is made that the domain hasn't been redefined for the contract. If it has been redefined, (with the corresponding settings of the *Applies To* field and DEFAULT_FROM) tag, changing the Product doesn't cause the contract's domain to change and domain-based classifiers are not analyzed.
 - If the domain changed and the domain wasn't redefined for the contract, domain-based classifiers with "<> Contract" in the *Applies To* field are checked according to the value in the *Change Rule* field. For example, when the value is "Restricted", if the current value of a domain-based classifier set for the contract is unavailable in the new domain, changing the Product's financial institution is not allowed.

If a domain is not assigned to a new Product or financial institution, the default domain is used for the contract and rules apply for changing the domain to the default domain (see the section "[Default domain](#)").

2.6 Default domain

A default domain is specified in the *Default Value* field of the "User Classifier" form for a classifier with the "Domain Type" category (i.e. for a domain type), see figure in the section "[Registering domain types and domains](#)".

A default domain can be used if:

- A domain isn't set for a contract. For example, during initial setup when a domain type (classifier with the "Domain Type" category) and domains are already registered, but a domain hasn't been assigned to the contract yet. In this case, when a contract domain is requested, the default value will be used.
- A domain that was set earlier is deleted for the contract/Product/financial institution.

If a domain can be set for a contract, Product and financial institution, the default domain can be used when a domain (classifier) is deleted at any of these levels.

Deleting a domain means changing it to the default domain. Rules can be configured for switching to the default domain (see the section "[Changing a domain](#)").

Configuring a default domain:

- A default domain is registered. This is a separate value for a "Domain Type" classifier. This value is specified in the *Default Value* field of a "Domain Type" classifier.

The screenshot shows the "User Classifiers" application window. At the top, there's a toolbar with buttons for Ins, Del, Query, Validate, Values, Mapping, and Domain-Based. Below the toolbar is a table header row with columns: Name, Code, Group Code, Category, Default Value, Applies To, Client Cat, Contract Cat, Product Cat, and Role. A record is selected in the table, showing "Domain Type" in the Name column and "DOM_TYPE" in the Code column. The "Default Value" field contains "Default domain". The "Applies To" field is set to "Any Contract". The "Role" field is marked as "Primary". Below the main table is a sub-table titled "Values for Domain Type" with columns: Weight Factor, Name, Code, Result Event Code, Is OK Value, Add Info, Is Active, Date From, and Date To. Three rows are listed: "Domain2" (Weight Factor 0), "Domain1" (Weight Factor 0), and "Default domain" (Weight Factor 0). The "Default domain" row is highlighted with a blue border. A blue arrow points from the "Values" button in the main toolbar down to the sub-table.

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role
Domain Type	DOM_TYPE		Domain Type	Default domain	Any Contract				Primary

Values for Domain Type								
Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
0	Domain2	D2				Yes	00/00/0000	00/00/0000
0	Domain1	D1				Yes	00/00/0000	00/00/0000
0	Default domain	Df				Yes	00/00/0000	00/00/0000

Configuring a default domain

- In general, a default domain is a technical domain which does not include classifiers (this domain is not present in the "Domains" form of domain-based classifiers). Note that:
 - Without additional settings in the "Domains" form, this domain can be deleted, and the default domain will be switched to only if a domain-based classifier is not set for the contract. Otherwise, this domain will be unavailable.
 - If a contract has classifiers that are included in a domain that is being deleted, rules for working with them when switching to the default domain must be configured in the "Domains" form for domain-based classifiers (otherwise, the domain will not be deleted):
 - In the "Domains" form, create a new record and select the default domain in the *Domain* field.

- In the *Availability* field, select "Not Available". This indicates that the record is configured for a technical (default) domain.
- In the *Change Rule* field, specify a rule for working with domain-based classifiers. See the field's description in the section "[Changing a domain](#)".



If this technical record for a default domain is not set up in the "Domains" form, the "Restricted" rule (default rule) is used when deleting a domain and switching to the default domain. For more information, see the section "[Changing a domain](#)". When this rule is used, the domain will not be deleted.

The figure shows an example of setup when in a change to the default domain, the values of domain-based classifiers for the contract are saved.

The screenshot displays two windows from the 'User Classifiers' application:

User Classifiers Window:

Name	Code	Group Code	Category	Default Value	Applies To	Role	Domain-based
Domain-based classifier	DOM_BASE		Classifier		Any Contract	Primary	Domain Type

Domains for Domain-based classifier Window:

Domain Type	Domain	Availability	Default Value	Change Rule	Add Info	Is Ready
Domain Type	Domain1	By Values		Keep Available		Ready
Domain Type	Domain2	By Values		Keep		Ready
Domain Type	Default domain	Not available		Keep		Ready

A blue arrow points from the 'Domains' tab in the User Classifiers window to the 'Domains' tab in the Domains for Domain-based classifier window.

Example of setting up a rule for working with domain classifiers in a switch to the default domain

3 Calculated Classifiers (Decisions)

A calculated classifier is a set of conditions based on client and/or contract classifiers (Full → Configuration Setup → Common Handbooks → User Classifiers) and a set of possible values, one of which is assigned to such a classifier according to the results of checking that the conditions specified have been met.

The execution of actions (for example, opening Events, activation of a limiter) depending on calculated classifiers is set up using IF_CS group tags for the corresponding objects (Events, usage limiters, etc., see the section "[Configuring Execution of Actions Depending on a Calculated Classifier Value](#)") as for client and contract classifiers.

3.1 Configuring Calculated Classifiers

3.1.1 "Decision" Form

Calculated classifiers (Decisions) are set up in the "Decision" form (Full → Configuration Setup → Common Handbooks → Decision), see [figure](#).

Each record in the "Decision" form is a separate calculated classifier. Each calculated classifier contains conditional expressions (see the description of the "Rules" and "Conditions" forms in the section "["Rules" Form](#)") that are used to determine whether client or contract parameters (client and contract classifier values) meet certain conditions. According to the results of meeting the conditions, a calculated classifier value is defined (values are configured in the "Results" form, see the section "["Results" Form](#)"). The procedure for determining the value of a calculated classifier:

- Conditional expressions configured for a calculated classifier are executed in succession.
- If the check of the conditional expression has a positive result (returns the "true" value), the value defined in the conditional expression is returned for the calculated classifier (see the section "["Results" Form](#)"). This value is assigned to the calculated classifier of the corresponding contract or client.
- If no conditional expression has a positive result when checked ("false" value), the default value is returned for the calculated classifier (see the description of the "Decisions" form's *Default Result* field). This value is assigned to the calculated classifier of the corresponding contract or client.

Decision											<<	<	>	>>	1 of 30	X
Name	Code	Group Code	Default Result	Applies To	Client Cat	Contract Cat	Product Cat	Add Info	On Off Mode	Domain Code	^					
Off only for VIP clients_BLOCK_CODE_04	BLOCK_CODE_04	BLOCK_CODES	On						Yes	FI_0272						
Bad Debt	BLOCK_CODE2		Off	Any Contract			Issuing		Yes							
Block Code C (IF_BLOCK_CODE=A+B)	C	BLOCK_CODES	Off						Yes	FI_0272						
CARD ONLINE STATUS	CARD_ONLINE_STATUS		Blocked	Any Contract	Private	Card	Issuing									
Client Group	CLIENT_GROUP															

"Decision" form

The form contains the following fields:

- *Name* – calculated classifier name.
- *Code* – calculated classifier code.
- *Group Code* – calculated classifier group code.
- *Default Result* – the default value of this calculated classifier that is returned if none of the conditional expressions has a positive check result (the value is selected from the list configured in the "Results" tab).
- *Applies To* – defines objects for which a calculated classifier value is calculated when making the corresponding requests to a contract in the hierarchy: i.e. objects for which conditional expressions are calculated and for which the values of classifiers set in these expressions are determined (if the *Applies To* field is not filled in settings for these classifiers).

A conditional expression is only calculated for one contract, depending on settings for the calculated classifier's *Applies To* field. Note that:

- If the *Applies To* field of a contract or client classifier set in a conditional expression is filled in, the value of this classifier will be determined according to its own *Applies To* field setting.
- If the *Applies To* field is not filled in for both the calculated classifier and the contract or client classifier set in the conditional expression, all calculations are made for the current contract.

Possible values for the *Applies To* field:

- "Any Contract" – an expression for a Decision is calculated on the level of the contract for which the request was made.
- "Main Contract" – an expression for a Decision is calculated for the main contract in a "Main/Sub" hierarchy.
- "Client" – when the contract gets a request for a calculated classifier value, the value is calculated at the client level.
- "Top Contract" – the classifier is calculated for the top contract in the hierarchy.
- "CP Client" – this value is reserved for use in the Customer Profile module. The Customer Profile module is not included in the standard configuration of Way4 and is supplied according to a separate agreement with OpenWay.
- "Document" – this decision is only calculated when processing a document; it is not shown in the interface and is not recorded in the CS_DECISION_LOG table (no history of changes to the classifier is recorded; see the section "[History of Changes to Calculated Classifier Values](#)". This value is used together with the "By Apply Rules" value of the *Rule Category* field (see the section "["Rules" Form](#)") to configure redefinition of contracts/accounts for recording fees and interest contracts (see the section "Redefining Contracts and Contract Accounts" of the document "Products and Contract Subtypes").

The value selected in the *Applies To* field determines whether the *Client Cat*, *Contract Cat*, and *Product Cat* fields are available. For example, when the "Client" value is selected in the *Applies To* field, only the *Client Cat* field of this group will be available.

- *Add Info* – used to enter additional parameters as tags.

- *On Off Mode* – this field is used when setting up Product options. "Yes" is set for classifiers that only have two values – "positive" and "negative" (see the section "[Blocking Product Options](#)").
- *Domain Code* – classifier domain code. This code allows classifiers to be grouped so that certain classifier groups can be shown for specific institutions and contracts. If the field is not filled in, this classifier will be available for all financial institutions and contracts.



Several classifiers can be set with the same code (*Code* field) and different *Domain Code* values.

The [Results] button is used for access to the "Results for <calculated classifier name>" form in which possible values for a calculated classifier are defined (see the section "["Results" Form](#)").

The [Rules] button is used for access to the "Rules for <calculated classifier name>" form which together with its child form "Conditions for..." is used to define conditional expressions for checking the correspondence of client and contract classifier values with the conditions specified (see the section "["Rules" Form](#)").

3.1.2 "Results" Form

The "Results for <calculated classifier name>" form is used to configure possible values for a calculated classifier, see [figure](#).

Name	Response Code
Inside Client	C_CLIENT
Outside Client	C_GUEST
Unknown Client	C_UNKNOWN

Buttons: Ins, Del, Query

"Results" form. Configuring possible values for a calculated classifier

The form contains the following fields:

- *Name* – value name.
- *Response Code* – value code.

3.1.3 "Rules" Form

The "Rules" form is used to define conditional expressions for checking the correspondence of client and contract classifier values with set conditions, see [figure](#).

Priority	Rule Category	Condition Type	Result	Comment Text	Classifier	Is Active	Date From	Date To
0	By Condition	OR				Yes	00/00/0000	00/00/0000

Buttons: Ins, Del, Query, Conditions

Configuring conditional expressions in the "Rules" form

The form contains the following fields:

- *Priority* – priority for executing the expression (the expression is executed in ascending order of the values in this field).
- *Rule Category* – type of check:
 - "By Condition" – conditions defined on the "Condition" child tab are checked, taking into account the logical operator for joining them that is specified in the *Condition Type* field; the first successful execution of the expression returns the calculated classifier value specified in the *Result* field and the check of the remaining expressions is ignored.
 - "By NOK Status" – the value of the *Valid* field for the current client or contract classifier value specified in the *Classifier* field of this form is checked. If the current value of the *Valid* field is "No", the value specified in the *Result* field is returned for the calculated classifier, otherwise, the default value is returned.
 - "By Apply Rules" – the conditions specified as tags in the *Apply Rules* field of this rule are checked. This value is used together with the "Document" value of the *Applies To* field in the "Decisions" form (see the section "["Decision" Form](#)") to redefine contracts/accounts for recording fees and contracts for accruing interest. See the section "Redefining Contracts and Contract Accounts" of the document "Products and Contract Subtypes".
 - "Custom" – the check specified in the custom procedure "CUST_CS_CHECK_RULE" is performed.
- *Condition Type* – logical operator for joining conditions that are checked:
 - "OR" – logical "OR"
 - "AND" – logical "AND"
- *Result* – calculated classifier value returned if the conditional expression is executed successfully. Selected from the list configured in the "Results for..." form (see figure in the section "["Results" Form](#)").
- *Comment Text* – comment text.
- *Classifier* – checked client or contract classifier (used when the value of the *Rule Category* field is "By NOK Status").
- *Apply Rules* – used to specify tagged parameters. Used when the value of the *Rule Category* field is "By Apply Rules". See the section "Redefining Contracts and Contract Accounts" of the document "Products and Contract Subtypes".
- *Is Active* – indicates whether expression is active. When the value in this field is "Yes", this expression will be checked, if the value is "No" – no check is made.
- *Date From* – start date of expression's activation. The field can be edited if the "Yes" value is specified in the *Is Active* field.
- *Date To* – end date of expression's activation. The field can be edited if the "Yes" value is specified in the *Is Active* field.

If the value "By Condition" is selected in the *Rule Category* field, when a record is selected in the "Rules for...." form, the "Conditions for..." form will be displayed, see [figure](#).

Conditions for Rules for Client Group

		Condition Rule	Classifier Value	Apply Rules
► Financial Institute	Same or Higher Severity As	Principal		

Ins Del Query

Configuring parameters in the "Conditions" form

The form contains the following fields:

- *Classifier* – client or contract classifier whose value is being compared.
- *Condition Rule* – operation for checking the condition.
 - "IS" – the condition is met if the current value of the client or contract classifier matches the value in the *Classifier Value* field.
 - "NOT" – the condition is met if the current value of the client or contract classifier does not match the value in the *Classifier Value* field.
 - "NOT OK" – the condition is met if "No" is specified in the *Is OK Value* field for the current client or contract classifier value (see figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)").
 - "IS OK" – the condition is met if "Yes" is specified in the *Is OK Value* field for the current client or contract classifier value (see figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)").
 - "Same or Higher Severity As" – the condition is met if for the current client or contract classifier, a value higher than or equal to the priority of the "*Classifier Value*" field value is specified in the *Weight Factor* field (priority) of the "Values for <classifier name>" form (see figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)").
 - "Same or Lower Severity As" – the condition is met if for the current value of the client or contract classifier, a value less than or equal to the priority of the value in the *Classifier Value* field is specified in the *Weight Factor* field of the "Values for <classifier name>" form (see figure in the section "[Configuring User Classifiers with Arbitrary Codes](#)").
- *Classifier Value* – client or contract classifier value with which comparison is being made.
- *Apply Rules* – used to enter additional parameters as tags. For instance, the CONTRACT_FOR tag with the value "BILLING" or "TOP" can be specified in this field. The tag defines the contract hierarchy level on which the classifier will be checked.

3.2 Viewing Current Values of Calculated Classifiers

A calculated classifier is shown in the "Classifiers" form of the client or contract together with system and user client and contract classifiers; see the section "[Viewing Client and Contract Classifier Data](#)". The current value of a calculated classifier can be viewed. The classifier value is calculated directly when the "Classifiers" form is opened.

3.3 Configuring Execution of Actions Depending on a Calculated Classifier Value

Execution of actions in Way4 depending on calculated classifier values assigned to a client and/or contract are configured using IF_CS group tags (as for client and contract classifiers), see the section "[Performing Actions Depending on Classifier Values](#)".

3.4 Sample Configuration

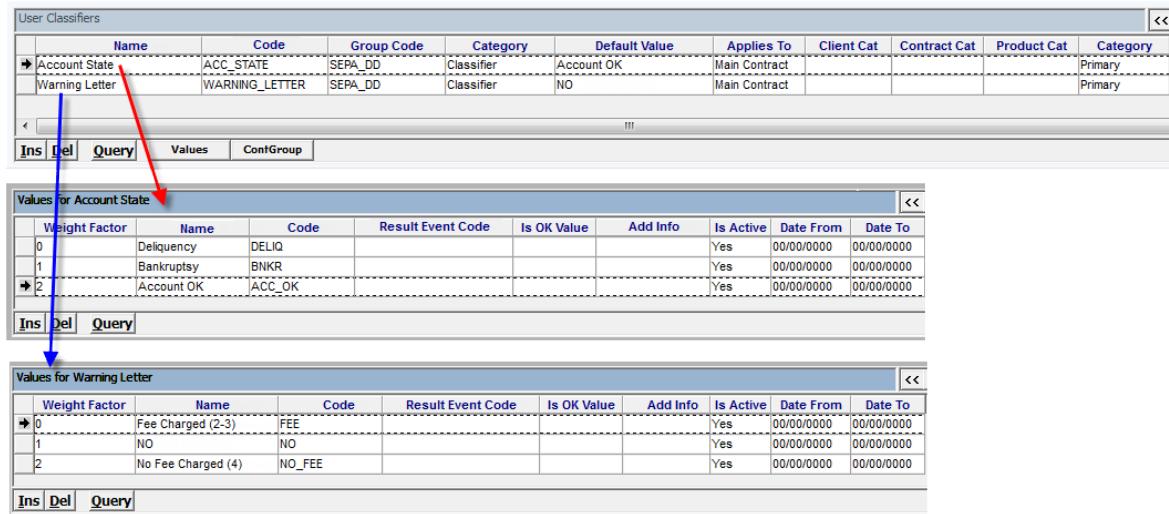
In a contract, a standing payment order is set up that is activated with a certain frequency when loan debt arise (it is used to repay debt).

The following settings must be made:

- When the first unsuccessful attempt is made to pay debt (i.e. generate and process a document according to the order), a message about this is not generated for the client.
- When the second and third unsuccessful attempts are made to pay debt, a message to the client is generated and a fee is charged.
- Beginning from the fourth unsuccessful attempt to repay debt, a message to the client is generated, a fee is not charged.
- In a number of cases (for example if the client is bankrupt), a message is not sent.

Settings with regard to client and contract classifiers and calculated classifiers (Decisions) are made as follows:

- Create client and contract classifiers (Full → Configuration Setup → Common Handbooks → User Classifiers):
 - "Account state" classifier – client (contract) status (state) classifier with "Delinquency", "Bankruptcy", and "Account OK" values, see [figure](#).
 - "Warning Letter" classifier with three statuses: "No" (don't send a message), "Fee Charged (2-3)" (a message is sent, a fee is charged), "No Fee Charge (4)" (a message is sent, no fee is charged), see [figure](#).



The screenshot displays three tables stacked vertically:

- User Classifiers** (Top Table):

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Category
Account State	ACC_STATE	SEPA_DD	Classifier	Account OK	Main Contract				Primary
Warning Letter	WARNING LETTER	SEPA_DD	Classifier	NO	Main Contract				Primary
- Values for Account State** (Middle Table):

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
0	Delinquency	DELIQ				Yes	00/00/0000	00/00/0000
1	Bankruptcy	BNKR				Yes	00/00/0000	00/00/0000
2	Account OK	ACC_OK				Yes	00/00/0000	00/00/0000
- Values for Warning Letter** (Bottom Table):

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
0	Fee Charged (2-3)	FEE				Yes	00/00/0000	00/00/0000
1	NO	NO				Yes	00/00/0000	00/00/0000
2	No Fee Charged (4)	NO_FEE				Yes	00/00/0000	00/00/0000

Configuring client and contract classifiers

- Create a calculated classifier (Full → Configuration Setup → Common Handbooks → Decision) "Warning Letter" based on "Account state" and "Warning Letter" client and contract classifiers created in the previous step, see [figure](#).
 - The "Send letter fee" value of the "Warning Letter" classifier is assigned if the contract has the "Account OK" value of the "Account State" classifier and the "Fee Charged (2-3)" value of the "Warning Letter" classifier.
 - The "Send letter w/o fee" value of the "Warning Letter" classifier is assigned if the contract has the "Account OK" value of the "Account State" classifier and the "No Fee Charged (4)" value of the "Warning Letter" classifier.

The diagram illustrates the configuration of classifiers through a series of tables:

- Decision** table (top):

	Name	Code	Decision Category	Default Result
→	Warning Letter	WRN LETTER	Transaction	
- Results for Warning Letter** table (under Results tab):

	Name	Response Code
Send letter w/o fee	NO_FEE	
→ Send letter fee	FEE	
- Rules for Warning Letter** table (under Rules tab):

Priority	Rule Category	Condition Type	Result	Comment Text	Classifier	Is Active
→ 0	By Condition	AND	Send letter w/o fee			Yes
1	By Condition	AND	Send letter fee			Yes
- Conditions for Rules for Warning Letter (1)** table (under Conditions tab):

Classifier	Condition Rule	Classifier Value
→ Warning Letter	IS	No Fee Charged (4)
Account State	IS	Account OK
- Conditions for Rules for Warning Letter (1)** table (under Conditions tab):

Classifier	Condition Rule	Classifier Value
→ Warning Letter	IS	Fee Charged (2-3)
Account State	IS	Account OK

Configuring calculated classifiers (Decisions)

- Configure two Event types (see figure):
 - An "e-mail w/o fee" Event opens if the contract has the "Send letter w/o fee" value of the "Warning Letter" calculated classifier (see IF_CS tags in the Special Params field).
 - An "e-mail fee" Event opens if the contract has the "Send letter fee" value of the "Warning Letter" calculated classifier (see IF_CS tags in the Special Params field).

Event Types										
Product	Contract	Institution	Name	Code	Op	Cciration T	Duration	Ev	Custom Co	Special Params
Issuing	Account	NWB1	e-mail fee	LETTER_FEE		Single	0			IF_CS_TYPE=WRN LETTER;IF_CS_VALUE=FEE;
→ Issuing	Account	NWB1	e-mail w/o fee	LETTER_NO_FEE		Single	0			IF_CS_TYPE=WRN LETTER;IF_CS_VALUE=NO_FEE

Configuring Event types

3.5 History of Changes to Calculated Classifier Values



The global parameter DECISION_LOG_MODE determines the mode for logging the history of changes to calculated classifiers (Decisions) (see the section "DECISION_LOG_MODE" of the document "Way4™ Global Parameters").

The history of changes to calculated classifier values is logged, for example, to optimise the export of data to external systems, for example to the Datamart module. The module is not included in the basic configuration of Way4 and is supplied according to a separate agreement with the Way4 vendor.



Before version 03.46.30, history was logged in deferred mode after running the menu item "Full → DB Administrator Utilities → Object Tasks → Start Object Tasks Scheduler" once. Starting from version 03.46.30, decisions are not logged by default.

The global parameter DECISION_LOG_MODE determines the mode for logging the history of changes to calculated classifiers (Decisions) in the CS_DECISION_LOG table. The logging mode can be set globally or for specific decisions. Possible values for the global parameter:

- "SKIP" – changes are not logged.
- "IMMEDIATE" – a change is logged immediately when a linked classifier changes.
- "DEFERRED" – changes are logged in deferred mode after running the menu item "Full → DB Administrator Utilities → Object Tasks → Start Object Tasks Scheduler" once. In deferred logging mode, a classifier value is calculated in the background over the course of the day, not at the time of the corresponding request.
- "CHECK_SKIP" – used if the logging mode is determined individually for specific decisions. When this value is specified, a check is made for the LOG_MODE tag in the classifier. If the tag is not set, the default mode is used (in this case, "SKIP").
- "CHECK_IMMEDIATE" – used if the logging mode is determined individually for separate decisions. When this value is specified, a check is made for the LOG_MODE tag in the classifier. If the tag is not set, the default mode is used (in this case, "IMMEDIATE").
- "CHECK_DEFERRED" – used if the logging mode is determined individually for separate decisions. When this value is specified, a check is made for the LOG_MODE tag in the classifier. If the tag is not set, the default mode is used (in this case, "DEFERRED").



For the "SKIP", "IMMEDIATE", and "DEFERRED" values, the logging mode is not checked for specific classifiers, i.e., these values only work globally. These values do not affect the mode for logging decisions exported to Datamart.

The LOG_MODE=<value> tag is set in a decision's *Add Info* field. The tag can have one of the three following values:

- "SKIP" – changes are not logged (see the description of the same value for the global parameter "DECISION_LOG_MODE").
- "IMMEDIATE" – a change is logged immediately when a linked classifier changes (see the description of the same value for the global parameter "DECISION_LOG_MODE").
- "DEFERRED" – changes are logged in deferred mode (see the description of the same value for the global parameter "DECISION_LOG_MODE").



Decisions that are exported to Datamart are always logged, and logging cannot be disabled for them or incorrect data will be imported to Datamart. It is recommended to set up logging mode for these classifiers individually (only for those that are included in export to Datamart). Only one of the following modes can be selected for them: CHECK_IMMEDIATE (used by default) or CHECK_DEFERRED (see the description above).

The history of changes to calculated classifiers cannot be viewed in Way4Cards.

4 Blocking Product Options

4.1 General Information

Classifiers can act as Product options. Product options are indicators of additional functions (actions) performed by a specific Product's contract (or with regard to a contract) during its lifecycle. This may be allowing/prohibiting authorization for a contract, charging a fee, etc.

Contract user classifiers with the *On Off Mode* attribute are used to set up Product options. These classifiers can only have two values – "Off" and "On", one of which is positive and the other negative (see the description of the *Is OK Value* field).

Product options (i.e. the corresponding classifiers) are set in a Product and inherited by all contracts created on its basis (see the section "Contract classifiers" of the document "Products and Contract Subtypes"). For example, when a contract is created, authorization for it is permitted by default – the contract inherits the Product's "Authorization" classifier with the default "positive" value – "On".

A Product option's positive value can be "blocked". For example, authorization for a contract may be blocked when the contract has serious overdue debt, or when a collection case is opened for the contract.

Blocking conditions are set up using calculated classifiers (Decisions) and are based on a combination of contract and client user and/or system classifiers values used for contract and client segmentation.

Depending on a Product option's blocking status (blocking is switched on/off), various actions can be set up in Way4. For example, an additional fee may be charged or a client notification generated.

4.2 Blocking Setup

4.2.1 Segmentation Classifiers

Client and contract user and system classifiers can be used to segment contracts and clients.

The following classifiers are used in our example:

- "Client Category" user classifier ("Normal", "VIP", "SUPERVIP" values).
- "DLQ_LEVEL" system classifier (see the section "[Configuring the "DLQ_LEVEL" System Classifier](#)"). Values:
 - "No debts" – no delinquency.
 - "Due" – delinquency of 1 to 30 days.
 - "Past Due 01" – delinquency of 31 to 60 days.
 - "Past Due 02" – delinquency of 61 to 90 days.
 - ...

- "Past Due 04" – delinquency of 121 to 150 days.
- "Collection Indicator" user classifier determining the contract's collection status. For values, see [figure](#).

User Classifiers

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info	On Off Mode	Domain Code
Delinquency Level	DLQ_LEVEL		Classifier	No Debts	Main Contract				Standard			
Collection Indicator	COLLECTION		Status	10 Normal	Main Contract		Issuing	Primary				FI_0272
Client Category	CL_CATEGORY		Classifier	Normal	Client			Primary				FI_0272

Ins	Del	Query	Validate	Values	ConfigGroup
-----	-----	-------	----------	--------	-------------

Values for Collection Indicator_0272

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
50	Voluntary Debt Settlement	VOL_DEBT				Yes	00/00/0000	00/00/0000
40	Freeze due to debt negotiation	BAD_DEBT				Yes	00/00/0000	00/00/0000
30	Repayment plan inst	REPAIMENT_INST				Yes	00/00/0000	00/00/0000
20	Repayment plan core	REPAIMENT_CORE				Yes	00/00/0000	00/00/0000
10	Normal	NORMAL				Yes	00/00/0000	00/00/0000

Ins	Del	Query
-----	-----	-------

Configuring segmentation classifiers

4.2.2 Blocking Conditions (Decisions)

Conditions for blocking Product options are a combination (combinations) of segmentation classifier values (see the section "[Segmentation Classifiers](#)"). These combinations are configured using calculated classifiers (Decisions) with the *On Off Mode* attribute. I.e. these calculated classifiers have only two values – "Off" and "On". Blocking is switched on if the calculated classifier's value is "On". When the value is "Off", blocking is not active (switched off).

The following "blocking" calculated classifiers are configured in our example:

- In the example in the figure below, blocking conditions are as follows: a collection case is open for the contract (see the Collections module) and the value of the corresponding "Collection Indicator" classifier is "Voluntary Debt Settlement" or "DCA Collection". In this case, blocking is switched on according to the "Contract in Collection" classifier.

The screenshot shows four windows stacked vertically:

- Decision**: Shows a single row with Name: "Contract in Collection", Code: "BLOCK_CODE01", Group Code: "BLOCK_CODES", Default Result: "Off", and a green circle around the "On Off Mode" column value "Yes".
- Rules for Contract in Collection**: Shows one rule with Priority: 0, Rule Category: "By Condition", Condition Type: "OR", Result: "On" (circled in blue), Comment Text: "Collection Indicator", Classifier: "Collection Indicator", Is Active: "Yes", Date From: "00/00/0000", and Date To: "00/00/0000".
- Conditions for Rules for Contract in Collection**: Shows two conditions: "Collection Indicator IS 50 Voluntary Debt Settlement (OK)" and "Collection Indicator IS 60 DCA Collection (OK)".
- Results for Contract in Collection**: Shows two rows: "On" with Response Code "ON" and "Off" with Response Code "OFF".

Configuring the "Contract in Collection" calculated classifier

- In the example in the figure below, blocking is performed when a critical level of delinquency is recorded for the contract: if a VIP client's contract has delinquency of more than four months (the value of the DLQ_LEVEL classifier is "Past Due 4"), and a regular client's contract has delinquency of more than one month (the value of the DLQ_LEVEL classifier is "Past Due 1"). In this case, blocking is switched on according to the "Bad Debt" classifier.



Dependence on the "Delinquency Level" classifier is configured in the standard way using the "Rules" and "Conditions" forms (see [figure](#)). Dependence on the "Client Category" classifier is configured using IF_CS tags (see the *Apply Rules* field in the "Rules" form in [figure](#)). For more information, see the section "[Performing Actions Depending on Classifier Values](#)".

Decision

Name	Code	Group Code	Default Result	Applies To	Client Cat	Contract Cat	Product Cat	Add Info	On Off Mode	Domain Code
Bad Debt	BLOCK_CODE2		Off	Any Contract					Issuing	Yes

Rules for Bad Debts

Priority	Rule Category	Condition Type	Result	Comment Text	Classifier	Is Active	Date From	Date To	Apply Rules
10	By Condition	AND	On	Bad Debts for VIP Clients		Yes	00/00/0000	00/00/0000	IF_CS_TYPE=CL_CATEGORY; IF_CS_VALUE=VIP;
20	By Condition	AND	On	Bad Debts for non VIP Clients		Yes	00/00/0000	00/00/0000	IF_CS_TYPE=CL_CATEGORY; IF_NOT_CS_VALUE=VIP;

Conditions for Rules for Bad Debts

Classifier	Condition Rule	Classifier Value	Apply Rules
Delinquency Level	IS	Past Due (1 - 29)	

Results for Bad Debts

Name	Response Code
On	ON
Off	OFF

Configuring the "Bad Debt" calculated classifier

Decision

Name	Code	Group Code	Default Result	Applies To	Client Cat	Contract Cat	Product Cat	Add Info	On Off Mode	Domain Code
Authorization Prohibited	BLOCK_CODE3		Off	Any Contract					Issuing	Yes

Rules for Authorisation Prohibited

Priority	Rule Category	Condition Type	Result	Comment Text	Classifier	Is Active	Date From	Date To	Apply Rules
10		On	On	Contract in Collection or Bad Debt are On		Yes	00/00/0000	00/00/0000	IF_CS_TYPE=BLOCK_CODE1; IF_CS_VALUE=ON;
20		On	On	Contract in Collection or Bad Debt are On		Yes	00/00/0000	00/00/0000	IF_CS_TYPE=BLOCK_CODE2; IF_CS_VALUE=ON;

Results for Authorisation Prohibited

Name	Response Code
On	ON
Off	OFF

Configuring the "Authorization Prohibited" aggregating calculated classifier

Dependence of the "Authorization Prohibited" aggregating classifier on the "Collection Indicator" (with the code BLOCK_CODE1) and "Bad Debt" (with the code BLOCK_CODE2) classifiers is configured using IF_CS tags (see the *Apply Rules* field in the "Rules" field in [figure](#)). For more information, see the section "[Performing Actions Depending on Classifier Values](#)".

4.2.3 Product Option Blocking

A Product option (i.e. the corresponding user classifier for the contract) is set in the Product (see the section "Contract classifiers" of the document "Products and Contract Subtypes").

This classifier is configured with the *On Off Mode* attribute. I.e., it has only two values: "Off" and "On" and one of these values is "positive" and the other "negative" (see the description of the *Is Ok Value* field).

In our example, two options are set up for the Product:

- "Authorization" classifier – defines whether authorization for the contract is allowed/prohibited. By default, the classifier has the positive value "On" (i.e. authorization is allowed).
- "Collection Fee" classifier – charge a fee at a certain stage in a contract collection case. By default, the classifier has the positive value "Off" (i.e. no fee is charged).

Blocking conditions (i.e. a "blocking" calculated classifier) are specified in the Product option's *Add Info* field (of the contract's user classifier) using the `BLOCK_CODE=<code of the blocking calculated classifier (Decision)>; tag` (see figures below). Blocking is switched on if this calculated classifier's value is "On".

Several calculated classifier (Decisions) codes with internal symbols can be used as the tag value:

- "+" (or) – blocking is enabled if one of the specified classifiers (or both classifiers) has the "On" value. For example, `BLOCK_CODE=<code 1>+<code 2>`.
- "-" – blocking is enabled if the value of this classifier is "Off". For example, the tag `BLOCK_CODE=-<code1>`.
The `BLOCK_CODE=<code 1>+<code 2>-<code 3>; tag` means that blocking is enabled if the value of the classifier with code 1 or code 2 is "On" and the value of the classifier with code 3 is "Off".

When blocking is enabled and a "positive" value is set for the Product option ("Yes" is specified in the *Is OK Value* field), this "positive" value is blocked.



Note that only a "positive" value for a Product option is blocked. If the option has a "negative" value, blocking is not enabled.

The screenshot shows two tables. The top table, titled "User Classifiers", lists a single row for "Authorization" with the following data:

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info	On Off Mode Domain Code
Authorization	AUTH	PRODUCT_OPTION	Classifier	On	Main Contract		Issuing	Primary		BLOCK_CODE=BLOCK_CODE3; Yes	

The bottom table, titled "Values for Authorization", lists two rows:

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
10	On	ON		Yes		Yes	00/00/0000	00/00/0000
20	Off	OFF		No		Yes	00/00/0000	00/00/0000

Configuring the "Authorization" Product option

User Classifiers

Name	Code	Group Code	Category	Default Value	Applies To	Client Cat	Contract Cat	Product Cat	Role	Add Info	On Off Mode	Domain Code
Collection Fee	COLLECTION_FEE	PRODUCT_OPTION	Classifier	Off	Main Contract		Issuing	Primary	BLOCK_CODE=BLOCK_CODE1	Yes		

Values for Collection Fee

Weight Factor	Name	Code	Result Event Code	Is OK Value	Add Info	Is Active	Date From	Date To
10	On	ON		No		Yes	00/00/0000	00/00/0000
20	Off	OFF		Yes		Yes	00/00/0000	00/00/0000

Configuring the "Collection Fee" option

4.2.4 Showing Blocking Reasons in the Interface

The reason for blocking a Product option is shown in customer service workbench (Customer Service → Customer Service), see figure.

CSS for 272-P-117007

Contract #	272-P-117007	Product	272-Block Code	Currency	RUR
Relation Type		Main Product	272-Block Code t	Available	49 800,00
Parent		Product Details		Credit Limit	50 000,00
Bank Account #		Subtype	272-Private Client Account	Last Paym. Amt	0,00
Bank #		Reporting		Last Paym. Date	00/00/0000
Short Name	Test Client 100000004868330	Institution	Block Codes FI	Last Activity	30/05/2016
First Name	Test	Branch		Current Billing	
Last Name	Test	Service Group		Start Date	01/05/2016
Security Name		Date Open	30/05/2016	End Date	31/05/2016
Company Name		Card Expire		Total Due	0,00
Birth Date	00/00/0000	Status	Account OK	Past Due	0,00
Reg Number	Test Client 100000004868330	Status Details		Due Date	00/00/0000

Query Set Financials Memo Client Related Billing Auth Limiters Collection Services Active Addr Own Addr Classifiers

Classifiers for Test Client 100000004868330, Top Level [272-P-117007]

Set For	Classifier	Classifier Value	Previous Value	Value Date	Value Description	Officer
272-P-117007	Behavior Type			00/00/00 00:00:00		
272-P-117007	Bal Type Limits Yearly FOD			00/00/00 00:00:00		
272-P-117007	Bal Type Limits Yearly			00/00/00 00:00:00		
272-P-117007	Bad Debt	On		00/00/00 00:00:00		
272-P-117007	Authorization	On (Blocked by BLOCK_CODE3)		00/00/00 00:00:00		

Ins Del Query

Showing the reason for blocking the "Authorization" Product option

When blocking of a Product option is enabled, the code of the blocking calculated classifier is shown (in brackets) next to the Product option's value in the *Classifier Value* field of the "Classifiers" form.

If a combination of codes using the BLOCK_CODE tag was specified when setting up blocking, the *Classifier Value* field will show the first code of the calculated classifier that blocked the option. For example, when the tag BLOCK_CODE=BLOCK_CODE1+BLOCK_CODE2; is set, if the calculated classifier with code 1 has the "On" value, no further check is made, the option is blocked and "On (Blocked by BLOCK_CODE1)" will be shown in the *Classifier Value* field in the interface. If the value of the second calculated classifier BLOCK_CODE2 is also "On", incomplete information about blocking will be shown in the interface. In this case, it is recommended to configure an additional aggregating classifier and

use it as the value of the BLOCK_CODE tag (in the example in the section "[Blocking Conditions \(Decisions\)](#)", this is the classifier with the code BLOCK_CODE3).

4.2.5 Execution of Actions Depending on Blocking Status

Execution of an action in Way4 depending on the blocking status (i.e. on the values of the corresponding calculated classifiers) can be configured as follows:

- Using IF_CS tags (like for client and contract classifiers, see the section "[Performing Actions Depending on Classifier Values](#)"). For example, IF_CS_TYPE=BLOCK_CODE1;IF_CS_VALUE=ON; tags set in a payment order determine that the order will activate if blocking is enabled (if the value of the BLOCK_CODE1 blocking calculated classifier is "On").
- Using the IF_BLOCK_CODE=<code of the blocking calculated classifier (Decision)>; tag. An action will be performed if blocking is enabled (if the value of this calculated classifier is "On"). Several calculated classifier (Decisions) codes in various combinations with internal symbols can be used as the tag value:
 - "+" (or) – an action is performed if one of the specified calculated classifiers (Decisions) has the "On" value. For example, BLOCK_CODE=<code 1>+<code 2>.
 - "-" – an action is performed if the value of this calculated classifier (Decision) is "Off". For example, the tag BLOCK_CODE=-<code1>.

The BLOCK_CODE<code 1>+<code 2>-<code 3>; tag means that an action is performed if the value of the calculated classifier with code 1 or code 2 is "On" and the value of the calculated classifier with code 3 is "Off".

The IF_BLOCK_CODE tag can be set for objects for which IF_CS tags can be set; i.e. to select a Service, open an Event, activate a standing payment order, etc. For more information, see the section "[Performing Actions Depending on Classifier Values](#)".

5 Classifiers without a Fixed List of Values

Classifiers without a fixed list of values expand the area of activity of client and contract classifiers (Full → Configuration Setup → Common Handbooks → User Classifiers) described earlier in this document. The main difference in classifiers without a fixed list of value from regular client and contract classifiers is the possibility to set arbitrary parameters for contracts.

When working with contract and clients, it is often necessary to classify them according to various parameters that are not defined in Way4, that don't have a fixed list of values known in advance (for example, the limit on the amount of cash that can be withdrawn in a 24-hour period; the region in which the cardholder is currently located; the client's registration number in an external system), or according to parameters with a large list of values (for example, client age). Regular client and contract classifiers can't be used for this since they assume preconfiguration of a fixed list of classifiers and their values. To resolve this task, classifiers without a fixed list of values are used. These classifiers are used to classify contracts as follows:

- Classification is made using arbitrary tags (for example, AGE=32;).
- These tags are set in the following contract fields: ext_data, add_info_01, add_info_02, add_info_03, add_info_04.
- These tags can be set, for example, using applications.

Conditions for executing actions in Way4 depending on classifiers without a fixed list of values are configured using the IF_PARM, IF_PARM_VALUE, and IF_PARM_FOR tags. It is possible to set a check of several parameters for a contract using the IF_PARM_NUMB, IF_PARM<N>, IF_PARM_VALUE<N>, and IF_PARM_FOR<N> tags. See the description of the IF_PARM_NUMB tag. IF_PARM_NUMB

The existence of the parameter can be checked without checking its value. To do so, the tag IF_PARM_VALUE=NOT_EMPTY; is used.

Execution of actions in WAY depending on classifiers without a fixed list of values is configured as with "IF_CS" tags, see the section "[Performing Actions Depending on Classifier Values](#)".

6 Contract and Client Custom Parameters

6.1 "Contract Parameters Setup" Form

Contract and client custom parameters are kept in the "Contract Parameters Setup" form (handbook) (Full → Configuration Setup → Common Handbooks → Contract Parameters Setup).



Starting from version 03.46.30, the "Contract Parameters Setup" form is based on the CONTR_PARM table. In previous versions of Way4, the form was based on data from the SY_HANDBOOK table with the CONTRACT_PARM_LIST handbook code. The CONTRACT_PARM_LIST handbook is no longer supported.

6.1.1 Overview of the "Contract Parameters Setup" Handbook

The "Contract Parameters Setup" handbook is a custom list of various important parameters and properties for contracts and clients, specifying their type, location and how the history of changes will be logged.

For all parameters registered in the "Contract Parameters Setup" handbook, single interfaces are used to get the current value and to set a new value. What exactly must be done and where in the contract hierarchy is determined automatically in Way4, based on settings in the "Contract Parameters Setup" handbook.

There are three types of contract custom parameters – tags (tags can be stored in the contract's ext_data, add_info_01, add_info_02, add_info_03, and add_info_04 fields at any level of the contract hierarchy), classifiers (user classifiers, see the section "[Configuring User Classifiers with Arbitrary Codes](#)"), threshold tariffs and tariffs with the "Technical" role (see the document "Way4™ Advanced Tariff Management").

It is not usually necessary to register tags, classifiers and threshold tariffs in the handbook; their use is standard. Registration is recommended in the following cases:

- If it is necessary to log the history of changes to a tag and/or view certain tags separately from the general list of a contract's tags. Moreover, the tag is already used in Way4 and for one reason or another it's not possible to go from using the tag to using a classifier and/or tariff. For example, if there is a fixed interface for working with tags used by external systems (tags are loaded/updated from an external system). To resolve these tasks, register the tag in the "Contract Parameters Setup" handbook and link it with a classifier or tariff. The link is made with consideration of the following conditions:
 - A string tagged parameter, i.e. a tag whose value is a sequence of characters and/or digits (for example, CONTRACT_ROLE=<role code>) should be linked with a client/contract/Product

classifier (see the description of the "Classifier" value in the *Mirror To* field). In this case, changes to the tag will be logged as changes to the classifier.

A tag with a fixed list of values should be linked to a classifier. I.e. it's necessary that all possible values have been registered in the list of values for the corresponding classifier in order to log. For tags without a fixed list of values, the history of changes will not be logged within a classifier.

- A numeric tag (containing a counter) is linked with a tariff (see the description of the "Tariff" value in the *Mirror To* field). In this case, changes to the tag will be logged as changes to a tariff with the special "Technical" role. It's possible that a tag is not linked either to a classifier or tariff. In this case, registering the tag in the handbook may optimize searching for the tag – i.e. defining fields and level of the hierarchy where a search will be made for the tag. Therefore, it is possible to register a tag without a fixed list of values.



If the tag was not used earlier in Way4 (the tag is not present in the configuration), register a classifier with the necessary code in the "User Classifier" handbook (or configure a tariff). Tags should not be used in this situation.

- Classifiers can be registered in the "Contract Parameters Setup" handbook if it's necessary to search for a classifier value all the way up the contract hierarchy. It is not usually necessary to register classifiers in the "Contract Parameters Setup" handbook, since changes to classifiers are logged, they have their own management interfaces (view, set, etc.).
- It is not usually necessary to register Threshold tariffs in the "Contract Parameters Setup" handbook. Changes to these tariffs are logged in the standard mode for logging tariffs. Moreover, by default all Threshold tariffs are contract inexplicit custom parameters. I.e. when working with Threshold tariffs by default an interface is used that is applied to parameters from the "Contract Parameters Setup" handbook. For example, when getting a contract parameter in the GET_CONTRACT_PARMS procedure, a search is automatically made for a tariff with the "Threshold" role that has the required code.
A threshold tariff can be created in explicit form in the handbook to be able to redefine where a search will be made for the current tariff value (for example, in the Top Level contract instead of the current contract).
- Registration of parameters in the "Contract Parameters Setup" handbook is mandatory when assigning parameters with applications and when assigning parameters in the "Product Inspector" module. If the parameter is not in the handbook, the application will not be processed and the parameter will not be assigned.



The difference of custom parameters from client and contract classifiers: classifiers have a fixed list of values, custom parameters can have arbitrary values.

To optimize the online check of classifiers, it is recommended to configure a custom parameter with the "Classifier" value in the *Mirror To* field and a code of the corresponding classifier and make a check using tags of the IF_PARM group. If the parameter refers to a classifier through the *Mirror To* field, this parameter has a fixed list of values.

If a classifier is registered in the "Contract Parameters Setup" form, it can be checked through IF_CS and IF_PARM tags.

6.1.2 Overview of the "Contract Parameters Setup"

The "Contract Parameters Setup" form (see [figure](#)) used to register contract and client custom parameters is opened with the user menu item (Full → Configuration Setup → Common Handbooks → Contract Parameters Setup).

Contract Parameters Setup													1 of 19	
Name	Code	Value Type	Role	Value Location	Location Field	Hierarchy Level	Mirror To	Check Product	Check FI	Sub Main Inheritance Rule	Tariff Code Ext	Correction Action	Add Info	Is Ready
AUTO_ER_KEEP	AUTO_ER_KEEP	String	Contract			Till Top Level	Yes					Reapply		Ready
BILLING_DAY	BILLING_DAY	Counter	Contract			Billing Level Only						Reapply		Ready
CONTRACT_ROLE	CONTRACT_ROLE	String	Contract			Current Level Only						Reapply		Ready

"Contract Parameters Setup" form

The form contains the following fields:

- Name
- Code
- Value Type
- Role
- Value Location
- Location Field
- Hierarchy Level
- Mirror To
- Check Product
- Sub Main Inheritance Rule
- Tariff Code Ext
- Is Ready

6.1.2.1 Name

Name of custom parameter.

6.1.2.2 Code

Code – parameter code. This may be:

- The name of the tag from field add_info_01, add_info_02, add_info_03, add_info_04, or ext_data of the ACNT_CONTRACT table.
- The name of the tag from field add_info_01, add_info_02, add_info_03, or add_info_04 of the CLIENT table.
- The name of the tag from the Product's *Custom Data* field.
- The name of the tag in the contract, client or Product.
- Classifier code.
- Tariff type code.

6.1.2.3 Value Type

Value Type – parameter type. Possible values:

- "Amount" – amount.
- "Counter" – numeric value.
- "Percentage" – percentage.



For parameters with the "Classifier" value in the *Mirror To* field and "Percentage", "Amount" or "Counter" value in the *Value Type* field, the corresponding classifier's values are checked – numeric value must be specified as the classifier value code.

- "String" – string.
- "Date".

When a parameter with the "Date" type is set, the date must be in YYYY-MM-DD format. A default value can be set for a "Date" type parameter. To do so, a hardcoded date must be specified as the value of the DEFAULT_FROM=<> tag in the *Add Info* field of the "Contract Parameters Setup" form. Contract/client dates, for example, can be set as the tag's value (in the format <table name>.<table field name>):

- CONTRACT.DATE_OPEN
- CONTRACT.FIRST_ACTIVITY_DATE
- CLIENT.DATE_OPEN
- CLIENT.BIRTH_DATE
- CLIENT.ADD_DATE_01
- CLIENT.ADD_DATE_02

The code of another parameter with the "Date" type can be specified as the value of the DEFAULT_FROM tag.

Restrictions on registration of contract parameters with the "Date" type:

- The *Mirror To* field is not filled in for this parameter.
- This parameter's *Value Location* field must not have the "Classifier" or "Tariff" value.
- This parameter's *Check Product* and *Check FI* fields are not filled in (the "Yes" or "Classifier" value must not be set in these fields).

- The parameter must not have the same code as that of a standard functional date (DUE_DATE, LP_DATE, and others).
- The parameter must not have the same code as the following hardcoded codes:
 - DATE_OPEN
 - BIRTH_DATE
 - DATE_EXPIRE
 - CARD_EXPIRE
 - ACTIVE_CARD_EXPIRE
 - FIRST_ACTIVITY_DATE
 - ACTIVITY_DATE
 - LAST_BILLING
 - NEXT_BILLING
 - ADD_DATE_01
 - ADD_DATE_02

A contract parameter with the "Date" type can be used to define the time from which a recurring weekly, monthly, quarterly, or yearly fee is charged (see the description of the BASE_DATE tag for transaction subtypes).

6.1.2.4 Role

Role – parameter role. Possible values:

- "Tariff Plan" – used to set up contract parameters for attaching tariff plans (see the section "Tariff Plans" of the document "Way4™ Advanced Tariff Management"). The Advanced Tariff Management module is not included in the Way4 basic configuration and is delivered according to an additional agreement with OpenWay. Specify the "String" value in the *Value Type* field for this value.
Only the "Top Level Only", "Billing Level Only", "Current Level Only", and "Effective Level" values in the *Hierarchy Level* field can be used for a parameter with the "Tariff Plan" role. If a "Top Level Only"/"Billing Level Only" hierarchy type is specified for a parameter with the "Tariff Plan" role, when assigning a Tariff Plan to a top contract, all subcontracts will be checked (in a Main/Sub hierarchy, or for both hierarchies, respectively) for this Tariff Plan's suitability in the subtype. Only values "Contract" and "Classifier" can be used in the *Value Location* field for a parameter with the "Tariff Plan" role.
- "Calculation" – used to set up calculated contract parameters. Calculated parameters make it possible to use a contract balance type value to calculate a fee or to determine threshold values for tariffs with the "Service Limit" role. See the document "Calculated Contract Parameters". This functionality is provided according to an additional agreement with OpenWay.
- "Contract Number" – used to configure the parameter that sets the contract number. This parameter is used to redefine the contract number using FOR tags (for example, the CONTRACT_FOR tag) or the FEE_CONTRACT tag. Specifics for configuring the parameter:

- For the parameter, specify "String" in the *Value Type* field and "Contract" in the *Value Location* field.
- The parameter is set in a contract's EXT_DATA field. Select "Ext Data" in the *Location Field* field.
- Don't fill in the *Mirror To*, *Check Product*, *Check FI* fields for the parameter or specify the DEFAULT_FROM tag.
- When the parameter's value is set for a contract, specify the number of the account contract.
- If the parameter is not set for a contract or is not found for the number specified, the procedure for actions in this situation can be set up using the DEFALUT_CONTRACT tag in the *Add Info* field of the "Contract Parameters Setup" form. Possible values for the DEFAULT_CONTRACT tag: "DEFAULT" – the default contract is used, for example the one that is set in the Service; "SELF" – the current contract is used, for which redefinition was attempted; "MAIN" – the main contract in the "Main/Sub" hierarchy of the current contract for which redefinition was attempted is used; "TOP" – the top contract in the hierarchy of the current contract for which redefinition was attempted is used.
- A value for the corresponding FOR tag or FEE_CONTRACT tag should be set in the following format (using the CONTRACT_FOR tag as an example):


```
CONTRACT_FOR=CONTRACT_PARM:<user parameter code>;
```
- In other cases, the field should not be filled in.

6.1.2.5 Value Location

Value Location – the object in which the parameter value is stored. The location in which a search will be made for the parameter:

- "Client" – the parameter (tag) will be searched for in the table with client data (CLIENT). For this value, the *Check FI* field can be additionally filled in to check the parameter's value in the financial institution, if the parameter is not set for the client.



For parameters with the "Client" value in the *Value Location* field, a check is made that the *Location Field* field specifies a value other than the value in the *Ext Data* field.

- "Contract" – the parameter (tag) will be searched for in the table with contract data (ACNT_CONTRACT). For this value, the *Check Product* and/or *Check FI* field can be additionally filled in to check the parameter's value in the Product and/or financial institution, if the parameter is not set in the contract. For a custom parameter with the "Contract" value in the *Value Location* field, the "Classifier" value in the *Check Product* field and the "Classifier" value in the *Mirror To* field, the parameter value is taken from the *Default Value* field of the "Classifiers for <Product name>" form (from the PRODUCT_OPTION table; "Full → Configuration Setup → Products → Product Definition → Products → [Classifiers]") if a classifier is not set for the contract. The

DEFAULT_FROM=PRODUCT; tag must be set for the corresponding classifier. See the section "Contract classifiers" of the document "Products and Contract Subtypes".

- "Product" – the parameter (tag) will be searched for in the Product table (APPL_PRODUCT). For a custom parameter with the "Product" value in the *Value Location* field and the "Classifier" value in the *Check Product* field, the parameter value is taken from the *Default Value* field of the "Classifiers for <Product name>" form (from the PRODUCT_OPTION table; "Full → Configuration Setup → Products → Product Definition → Products → [Classifiers]"). In this setup, the parameter cannot be set for a contract, the value is always taken from a Product. See the section "Contract classifiers" of the document "Products and Contract Subtypes".
- "Classifier" – the parameter's current value is stored as the value of a custom classifier. When getting the parameter, its value is determined on the basis of the classifier.
- "Decision" – the parameter's current value is saved as the value of a calculated classifier. When getting the parameter, its value is determined on the basis of a calculated classifier.
- "Tariff" – the current value of the parameter is stored as a tariff value. When getting the parameter, its value is determined on the basis of the tariff with the corresponding code. According to the specified code, the tariff type and tariff role are defined in the "Tariff Types" form (Tariffs → Tariff Types & Tariff Domains → Tariff Types). If there are several tariff types with this code and different roles registered in the form, an arbitrary role will be selected and further search for the tariff will be made according to the combination of the code and selected role. This value, in particular, is used when setting up tariffs with the "Threshold" and "Redefinition" roles (to redefine the frequency with which an order is activated).

When a contract parameter with "Tariff" in the *Mirror To* or *Value Location* field is set or changed, a personal tariff related to the parameter is created/changed automatically.

If "Tariff" is set in the *Value Location* field, personal tariffs are only created on the basis of template tariffs (the parameter ALLOW_TRF_PERS=T is set globally or as a tag in the corresponding Product) and for the tariff and for the record in the "Contract Parameters Setup" form, the *Tariff Code Ext* field must be filled in so that changes in the values of the custom parameter cause the values of the personal tariff to be changed, to save the history of changes to the parameter.

When the value of a custom parameter with the "Contract" or "Client" value is cleared (for example, when an empty value for the parameter is set in the Customer Service form), the corresponding tag is deleted from contract/ client parameters.

When the value of a custom parameter with "Tariff" in the *Value Location* or *Mirror To* field (for example, when an empty value for the parameter is set in the Customer Service form) is cleared, the corresponding personal tariff is deactivated. The "Skip" value is set in the "Tariff Data" form for the corresponding record. After a personal tariff has been deactivated, default tariff settings can be applied to the contract – tariff settings defined by a contract parameter, from a template or standard domain.



The *Value Location* field is filled in when registering parameters. It is not recommended to change the *Value Location* field's value when the parameter is already used. When the storage location of the parameter is changed, register a new parameter with a new storage location.

6.1.2.6 Location Field

Location Field – the field where the tag value is stored. Used for more exact definition of the tag value's location, to optimize searching. Used only for "Client" and "Contract" objects (only for records with the "Client" and "Contract" values in the *Value Location* field).

6.1.2.7 Hierarchy Level

Hierarchy Level – the field is filled in for the "Contract" value of the *Value Location* field and defines which contracts in the hierarchy will be checked when searching for the value of this parameter (when making the corresponding requests to a contract in the hierarchy). First a search is made on the contract level, and then on the level of the corresponding Product:

- "Top Level Only" – a parameter value is searched for in the hierarchy's top contract. When a custom parameter value is set for a subordinate contract, the parameter is set for the top contract in the hierarchy. For example, for the top contract, the value Value1 is set. When Value2 is set for the subordinate contract, this value is set for the top contract. A classifier is not set for the subordinate contract.
- "Billing Level Only" – a parameter value is searched for in the billing contract (contract used for settlements). This is the main account contract in a Main/Sub contract.
- "Current Level Only" – a parameter value is searched for in the contract to which the request is being made.
- "Till Top Level" – a parameter value is searched for starting from the contract for which the request was made and upward in the hierarchy to the top contract in the hierarchy.
- "Till Billing Level" – a parameter value is searched for starting from the contract for which the request was made and upward in the hierarchy to the billing contract.
- "Effective Level" – when this value is specified, the contract that is being checked is defined using the EFF_CONTRACT tag in the *Add Info* field of the "Contract Parameters Setup" form.

6.1.2.8 Mirror To

Mirror To – the field is used when registering tags in the form that are related to a specific tariff or classifier. Determines the object used to store the log of changes to a tag. The log is used when correcting transactions with Reversal Management module tools. It is only recommended to enable tag log storage if the Reversal Management module is used. Possible values:

- "Tariff" – this value should be specified if the tag value is an amount, interest rate, or counter (see the *Value Type* field). This value can only be used for the "Contract" value of the *Value Location* field. When a contract parameter with "Tariff" in the *Mirror To* or *Value Location* field is set or

changed, a personal tariff related to the parameter is created/changed automatically. Note that the tag's value is specified as the value of the corresponding tariff when approving a contract.



Creation (manual/by pipes) of personal tariffs that are based on the "Tariff" value of the *Mirror To* field is prohibited. Personal tariffs related to these parameters are created/changed automatically when the corresponding parameter is set/changed.



If the mode for creating personal tariffs only on the basis of template tariffs (ALLOW_TRF_PERS=T is set globally or as a tag in the corresponding Product) is used when "Tariff" is set in the *Mirror To* field, for both the tariff and for the record in the "Contract Parameters Setup" form, the *Tariff Code Ext* field must be filled in for the tariff so that a change in the value of a contract parameter leads to a change in the personal tariff's value, to save the history of changes to the parameter.

When the value of a custom parameter with "Tariff" in the *Value Location* or *Mirror To* field (for example, when an empty value for the parameter is set in the Customer Service form) is cleared, the corresponding personal tariff is deactivated. The "Skip" value is set in the "Tariff Data" form for the corresponding record. After a personal tariff has been deactivated, default tariff settings can be applied to the contract – tariff settings defined by a contract parameter, from a template or standard domain.

- "Classifier" – this value should be specified if the tag has a fixed list of values and can be linked with a specific classifier.

If changes must be logged, all possible values for the tag should be registered in the list of values for the corresponding classifier. This value can only be used for the "Contract" or "Client" values of the *Value Location* field.

Note that the tag's value is specified as the value of the corresponding classifier when approving a contract. I.e. when approving a contract, a search is made for the tag in the client/contract/Product (according to settings in the "Contract Parameters Setup" form). The tag value is registered as the current value of the corresponding classifier (with the same code).

If a contract parameter has the "Classifier" value of the *Mirror to* field, for the corresponding classifier a default value is set in the Product or financial institution using the DEFAULT_FROM tag (for example DEFAULT_FROM=Value1;) the history of changes will be kept only when "Value1" is set using the contract parameter. When the default value from the DEFAULT_FROM tag is used, for example, when creating a contract, this is not shown in the history of changes to the classifier.

For parameters with the "Classifier" value in the *Mirror To* field and values "Percentage", "Amount" or "Counter" in the *Value Type* field, the corresponding classifier's values are checked – numeric value must be specified as the classifier value code.

6.1.2.9 Check Product

Check Product – this field makes it possible to set a check for the parameter value in the Product. Used when the *Value Location* field value is "Contract". Values:

- "Yes" – a search for the parameter (tag) is first made in the table with contract data (ACNT_CONTRACT) and then in the Product table (APPL_PRODUCT).
- "No" – if "No" is specified in the field, a search for the parameter will not be made in the Product. This is the default value.
- "Classifier" – in this case, the default value specified for the Product in the "Classifiers for <Product name>" form (PRODUCT_OPTION table) "Full → Configuration Setup → Products → Product Definition → Products → [Classifiers]" is used. See the section "Contract classifiers" of the document "Products and Contract Subtypes".
- If the field is not filled in, and the "Classifier" value is specified in the *Mirror To* field or in the *Value Location* field, a check is made for the presence of the DEFAULT_FROM tag in the *Add Info* field of the corresponding classifier. If the tag is found with the "PRODUCT" value (or one of the tag's values is "PRODUCT"), the *Check Product* field's value is considered to be equal to "Classifier", and a search is made for the default value according to tag settings. If the tag is not found or it is found with a different value, a search for the default value is not made.

6.1.2.10 Check FI

Check FI – this field makes it possible to set a check for the parameter value in the financial institution if the parameter is not set in the client or contract and/or in the Product. Used for the "Contract", "Client", and "Product" values of the *Value Location* field.

- (i) If the *Check FI* field is not filled in, and the "Classifier" value is specified in the *Mirror To* field or in the *Value Location* field, a check is made for the presence of the DEFAULT_FROM tag in the *Add Info* field of the corresponding classifier. If the tag is found with the "FI" value (or one of the tag's values is "FI"), the *Check FI* field value is considered to be equal to "Classifier", and a search is made for the default value according to tag settings. If the tag is not found or it is found with a different value, a search for the default value is not made.

6.1.2.11 Sub Main Inheritance Rule

Sub Main Inheritance Rule – the field is used to work with Tariff Plans (i.e. for contract parameters with the "Tariff Plan" role). The field defines rules for inheriting a tariff domain from a card contract to an account contract. When the Tariff Plan in the card changes, the priority of the new Tariff Plan is compared with that of the Tariff Plan in the account contract. There are two ways of comparing:

- "Higher Priority" – comparison is made according to the "STRICTLY GREATER" principle. If the new Plan's priority is greater, the Tariff Plan in the account contract will be changed automatically.

- "Equal or higher priority" – comparison is made according to the principle "GREATER OR EQUAL TO". If the new Plan's priority is greater than or equal to that of the Tariff Plan in the account contract, the account contract's Tariff Plan will be changed automatically.

Inheriting by priority can be used, for instance, when several cards with different Tariff Plans are set up under an account contract.

6.1.2.12 Tariff Code Ext

Tariff Code Ext – a tariff's unique identifier. The field is filled in if "Tariff" is specified in the *Mirror To* field and several tariffs with the "Technical" role are set up.

6.1.2.13 Correction Action

Correction Action – this field determines the procedure for working with this parameter when correcting transactions with Reversal Management module tools.

- "Reapply" – the log of changes to the parameter will be reapplied without changes. This value should be selected if the parameter is set/changed with applications or manually.
- "Recalc" – the log of changes to the parameter is cleared to the date of correction and new recalculated values are not displayed. This value should be selected if the parameter is set/changed using custom procedures.
- "Skip" – adjustment of transactions with Reversal Management module tools does not affect this parameter.

6.1.2.14 Is Ready

Is Ready – "Yes" will be shown in this field if the parameter was successfully checked using the [Check] button or automatically when migrating the handbook from the SY_HANDBOOK table to the CONTR_PARM table during Way4 upgrade to version 03.46.30 (see the section "[""OBSOLETE Contract Parameters handbook" Form](#)"). If errors occur, this field will contain "N". Error messages are available in the process log or in the "Contract Parameters Setup" form opened using the [Messages] button for a specific parameter.

6.2 Current parameter values

Information about the current values of client or contract custom parameters can be viewed in the following forms:

- In the "Contract Parameters" form (see [figure](#)), opened with the following menu items:
 - "Issuing → Customer Support → Contract Parameters" – for issuing contracts.
 - "Acquiring → Customer Support → Contract Parameters" – for acquiring contracts.
 - "Full → Configuration Setup → Accounting Setup → Contract Parameters" – for bank contracts.

The "Contract Parameters" form contains a list of contracts that are registered in Way4. This form can show contract parameters (click the [For Contract] button) and parameters for the corresponding clients (click the [For Client] button). See the form's description [below](#).

- In the "Contract Params" form (the form's fields are the same as those in the "For Contract for <...>" form, see [figure](#)) containing contract parameters. The following menu items open this form:
 - "Customer Service → Customer Service → [Contract Parm]"
 - "Issuing → Contracts Input & Update → Issuing Contracts (Private) → [Contract Parm]".
 - "Issuing → Contracts Input & Update → Single Cards → [Contract Parm]".
 - "Issuing → Contracts Input & Update → Issuing Contracts – New (Private) → [Contract Parm]".
 - "Issuing → Contracts Input & Update → Issuing Contracts (Corporate) [Contract Parm]". In this case, the "Contract Parm for <contract number>" form is opened using the "Links" item from the DB Manager system menu.
 - "Acquiring → Acquiring Contracts → Acquiring Contracts → [Contract Parm]".
- In the "Contract Params" form (the form's fields are the same as those in the "For Client for <...>" form, see [figure](#)) with client parameters. The following menu items open this form:
 - "Issuing Contracts Input & Update Clients (Private) [Contract Parm]".
 - "Issuing Contracts Input & Update Clients (Corporate) [Contract Parm]".

Also see the sections "Working with Contract and Client Custom Parameters" of the document "Customer Support Manual" the section "Editing Contract Parameter Values" of the document "Issuing Module", and the section "Contract Custom Parameters" of the document "Acquiring Module".

Contract Parameters											30 of 23700	X
Contract #	Contract Name	Liab Category	Contract Type	Open	Status	Curr	Credit Limit	Available	Product	Product Category		
6799990125151419	See main [6799990125151419]	Our Cirrus/Maestro	01/01/2015	Card OK	USD	0,00	0,00	TARIFFS PLAN	Issuing			
6799990135711830	See main [6799990135711830]	Our Cirrus/Maestro	01/01/2015	Card OK	USD	0,00	0,00	TARIFFS PLAN	Issuing			
6799990146848571	See main [6799990146848571]	Our Cirrus/Maestro	01/01/2015	Card OK	USD	0,00	0,00	TARIFFS PLAN	Issuing			
6799990160159228	See main [6799990160159228]	Our Cirrus/Maestro	01/01/2015	Card OK	USD	0,00	0,00	TARIFFS PLAN	Issuing			

Buttons at the bottom: Ins, Del, Query, Full Info, For Contract, For Client.

"Contract Parameters" form

The "Contract Parameters" form contains a list of contracts that are registered in Way4. The following buttons are used to view, set or change a parameter in the "Contract Parameters" form:

- For a contract – using the [For Contract] button. It opens the "For Contract for <...>" form, see [figure](#). The "For Contract for <...>" form shows all contract parameters registered in the DB that have "Contract" in the *Location of Current Value* field.
- For a client – using the [For Client] button. It opens the "For Client for <...>" form (see [figure](#)). The "For Client for <...>" form shows all contract parameters registered in the DB that have "Client" in the *Location of Current Value* field.

For Contract for Top Level [5413330155094536]

Code	Name	Value	Value Type	Role	Effective contract	Eff Level	Eff Location
DEC_DOM_TEST3	DEC_DOM_TEST3	res233	String		5413330155094536	Current Level	Classifier
DEF_1	DEF_1		String				
DEF_CR_LIMIT	default credit limit						
DEF_FI_CURRENT	DEF_FI_CURRENT		String				
DEF_FI_TILL_BILLING	DEF_FI_TILL_BILLING	f3	String				Fin Institution
DEF_FI_TILL_BILLING_PROD	DEF_FI_TILL_BILLING_PROD		String				

Ins Del Query History

"For Contract for <...>" form

For Client for Top Level [5413330155094536]

Code	Name	Value	Value Type	Role	Effective contract	Eff Level	Eff Location
PERSONAL_MANAGER	PERSONAL MANAGER		String				
CLIENT CONTR PAR	CLIENT CONTR PAR		String				

Query Edit History

"For Client for <...>" form

The "For Contract for <...>" and "For Client for <...>" forms contain the following fields:

- *Code, Name, Value, Value Type, Role* – parameter code, name, type, and role. These fields are filled in when creating a parameter and are described in the section "["Contract Parameters Setup" Form](#)".
- *Effective Contract* – number of the contract for which the classifier value is set.
- *Eff Level* – hierarchy level of the contract for which the parameter value is set, relative to the current contract. Possible values:
 - "Top" – the parameter is set for the top contract in the hierarchy.
 - "Billing" – the parameter is set for the settlement contract. This is the main account contract in a "Main/Sub" contract hierarchy.
 - "Current" – the parameter is set for the current contract.
 - "Effective" – the parameter is set in the middle of the hierarchy. The parameter is set for a contract other than the top contract or billing contract.
- *Eff Location* – location in which the parameter value is stored. Possible values:
 - "Client" – the parameter value is set for a client.
 - "Contract" – the parameter value is set for a contract.
 - "Product" – the parameter value is set for a Product.
 - "FI" – the parameter value is set for a financial institution.

6.3 Manually changing the value of a client/contract custom parameter

To edit a parameter, select it in the "For Contract for <...>"/"For Client for <...>" form (for ways of opening these forms, see the section "[Current parameter values](#)") and use the [Edit] button to open the

"Contract Parameter – Set ..." form (see [figure](#)). In the **New Value** field set the parameter's value and click the [Proceed] button.



If a custom parameter cannot be edited manually, the [Edit] button will not be shown in the interface. It is not possible to edit parameters with the "Calculation" role or parameters related to tariffs (these parameters might not be registered in the "Contract Parameters Setup" form but are present in the list of contract/client classifiers).

Contract Parameter - Set Number

Edit value for contract "001-P-200960"	
Contract Parameter Code :	TECH_3
Current Value :	0,00
New Value :	0,00
Cancel Proceed	

"Contract Parameters – Set ..." form



Important! When custom parameters are set for a contract through standard interfaces (including by using applications), the contract is not automatically approved. Therefore, if the use of a contract's changed parameter requires approval of the contract (for example, when the PARENT_LIMIT_PART parameter is set), this process must be additionally run for the contract.

6.4 History of changes to a custom parameter

The history of custom parameters can be viewed in the "Contract Params" form, in "For Contract for <...>", "For Client for <...>" forms when clicking the [History] button. The "History for <>" form will open. See an example of this form in [figure](#) showing the contract parameter history; the form with the client parameter history has the same fields.

Ways of opening the "Contract Params" form, "For Contract for <...>", "For Client for <...>" forms are listed in the section "[Current parameter values](#)".

History for Contract Parm for Test Client 146880, See main [1000050175447021], Card OK											1 of 1	
Code	Contract	Value	Is Active	Local_date_from	Local_date_to	DB_date_from	DB_date_to	Prev Value	Officer	Ext Data	b	x
PRD BSD CONTR PRM CURR	0000501754470212	Active	01/10/09 00:00:00	01/01/10 00:00:00	01/10/09 00:00:00	01/01/10 00:00:00				SUPERUSERPREV DEF VALUE_ID=147420		
Query												

"History for Contract Params for ..." form

The "History for..." form contains the following fields:

- *Code* – parameter code.
- *Contract* – number of the contract for which the parameter is set. The field is filled in for contract parameters. For client parameters, it is left empty.
This field shows the number of the contract that is specified in the *Effective Contract* field of the "For Contract for <...>"/"For Client for <...>" form (see the section "[Current parameter values](#)").
That is, the contract parameter's history is shown for the contract from the *Effective Contract* field.
- *Value* – parameter value.
- *Is Active* – parameter status. Possible values:
 - "Active" – the value is active for the contract. This value is used when the first historic record is created for parameters with the "Contract"/"Client" value of the *Value Location* field and an empty *Mirror To* field (the classifier's current value is registered in this record).
 - "InActive" – the value is inactive. Set for a parameter value's historic record.
 - "Reversed" – this value was reversed when correcting transactions in the Reversal Management module.
 - "Waiting" – used for parameters with the "Classifier" value of the *Mirror To* field, if the value of the corresponding classifier is set for a future date.
- *Local_date_from* – banking date from which the parameter value is effective.
- *Local_date_to* – banking date on which the parameter value expires.
- *DB_date_from* – system date from which the parameter value is effective.
- *DB_date_to* – system date on which the parameter value expires.
- *Prev Value* – parameter's previous value.
- *Officer* – Way4 user who set the parameter value.
- *Ext Data* – this field contains technical tags.



For parameters with the "Calculation" value in the *Role* field, when a record is created in the "History..." form, in addition to registration of the parameter's value, additional information in the form of tags is additionally registered in the *Ext Data* field:

AMOUNT=<amount> – corresponds to the *<parameter code>_AMOUNT* tag stored in the contract

CURR=<numeric currency code> – corresponds to the *<parameter code>_CURR* tag stored in the contract

DATE_FROM=<date> – start date of the calculation period

DATE_TO=<date> – end date of the calculation period

For parameters with the "Calculation" role, a historic record is added at the end of the calculation period (i.e. at the end of the calendar month/quarter/year/billing cycle). A calculation period's start and end dates might not match *Local_date_from*. For more information, see the document "Calculated

"Contract Parameters". This functionality is provided according to an additional agreement with OpenWay.

For parameters with the "Classifier" value of the *Mirror To* or *Value Location* field, the "History for..." form shows the history of the corresponding classifier. The classifier's history can also be viewed by clicking the [History] button in the "Classifiers for..." form. See the section "[Viewing Client and Contract Classifier Data](#)".

For parameters with the "Tariff" value of the *Mirror To* or *Value Location* field, the "History for..." form shows the history of changes to the corresponding personal tariff. This history can also be viewed in the "Tariffs for..." form (Tariffs → Tariff for Contracts (Edit Personal)) → [Tariffs] that contains a contract's personal tariffs. To view the history, click the [Threshold] or [Technical] button to open the form with tariff numeric values. The button name depends on the tariff role. The form with tariff numeric values contains active and historic records. History can be traced using the *Start Date* field (*Start Date* is the date from which the tariff became effective; this field is filled in automatically when tariffs are approved). See the document "[Way4 Advanced Tariff Management](#)".



When a custom parameter is set or changed, personal tariffs related to this parameter are automatically created/changed.

6.4.1 History of parameters with "Contract"/"Client" in the Value Location field and an empty Mirror To field

The history of custom parameters with "Contract"/"Client" in the *Value Location* field and an empty *Mirror To* field is logged in Way4 starting from version 03.49.30.19. After installing this version, parameter change history will start to be logged after one of the following actions has been performed:

- After the contract parameter value has been changed.
- After the contract has been reapproved.
- After initialization of parameter change history. History for contracts is initialized after installation of version 03.49.30.19 if it is necessary to record the state of parameters and start logging their history from a certain date. For example, if a parameter can be used when correcting transactions with Reversal Management module tools. For history initialization, contact OpenWay.

After one of these actions has been performed, the first historic record is registered for the parameter (if the parameter is set for the contract/client). This is a technical record containing the parameter's current value for the contract. This record is registered with the current banking date and the current system date (regardless of the date the parameter was actually set for the contract) and with the "Active" value of the *Is Active* field. Note that for the first technical record, the *Prev Value* field is not filled in. I.e., even if a historic record is created when there is a change in a value that was already set, the parameter's previous value is not shown in the *Prev Value* field. The next time the parameter's value changes, a standard historic record will be created containing the parameter's new and previous value.

- i** For contract parameters with the "Calculation" role, history is not initialized. For these parameters, a historic record is added at the end of the corresponding settlement period; that is, at the end of the calendar month/quarter/year/billing cycle. See the document "Calculated Contract Parameters". This functionality is provided according to an additional agreement with OpenWay.

6.4.2 Initializing history

The history of parameters with "Contract"/"Client" in the *Value Location* field and an empty *Mirror To* field is initialized with the following menu items:

- "Full → DB Administrator Utilities → Special Contract Utilities → Contract Parameters → Contract Parameters history initialization for Contracts" – initialize contract parameter history for contracts.
- "Full → DB Administrator Utilities → Special Contract Utilities → Contract Parameters → Contract Parameters history initialization for Clients" – initialize contract parameter history for clients.

Contract parameters for which history must be initialized should be marked with the TO_INIT=Y; tag in the *Add Info* field of the "Contract Parameters Setup" form (Full → Configuration Setup → Common Handbooks → Contract Parameters Setup).

6.5 "OBSOLETE Contract Parameters handbook" Form

- i** Starting from version 03.46.30, the "Contract Parameters Setup" form is based on the CONTR_PARM table. In previous versions of Way4, the form was based on data from the SY_HANDBOOK table with the CONTRACT_PARM_LIST handbook code. When Way4 is upgraded to version 03.46.30, the handbook is automatically migrated to the CONTR_PARM table. During migration, data are moved to the CONTR_PARM table and are also saved (duplicated) in the SY_HANDBOOK table with the OLD_CONTRACT_PARM_LIST handbook code (see figure). Data from the old handbook can be viewed in the "OBSOLETE Contract Parameters handbook" form.

The "OBSOLETE Contract Parameters handbook" form (Full → DB Administrator Utilities → Special OpenWay Utilities → Product Utilities → OBSOLETE Contract Parameters handbook) is used to view data from the old handbook and troubleshooting errors that occurred when loading data from earlier versions of Way4 using the "Configuration Inspector" module or in other ways.

OBsolete Contract Parameters handbook										<<	<	>	>>	1 of 17	X
Handbook code	Validation Flag	Name	Code	Value Type	Location of Current Value	Location Field	Hierarchy Level	Mirror To	Tariff Code Ext	Correction Action	^				
OLD_CONTRACT_PARM_LIST	AUTO_ER.KEEP	AUTO_ER.KEEP	String	Contract or Product			Till Top Level			Reapply					
OLD_CONTRACT_PARM_LIST	BILLING_DAY	BILLING_DAY	Counter	Contract			Billing Level Only			Reapply					
OLD_CONTRACT_PARM_LIST	CONTRACT_ROLE	CONTRACT_ROLE	String	Contract			Current Level Only			Reapply					
OLD_CONTRACT_PARM_LIST	CSCP_1	CSCP_1	String	Contract			Current Level Only	C		Reapply					
OLD_CONTRACT_PARM_LIST	CSCP_2	CSCP_2	String	Client				C		Reapply					

[Ins] [Del] [Query]

"OBsolete Contract Parameters handbook" form

If an old configuration is imported, data for contract parameters are loaded to the SY_HANDBOOK table with the CONTRACT_PARM_LIST handbook code. It will not be possible to approve Products, Accounting Schemes, or Service Packages. In this case, the handbook's data should be manually moved in the "OBsolete Contract Parameters handbook" form.

- Filter data for the obsolete handbook with the CONTRACT_PARM_LIST code. Records corresponding to this handbook are highlighted in red.
- Click on the [Check] button to check.
- After checking, all handbook records that are duplicates of the new CONTR_PARM handbook (if there are records in the CONTR_PARM table) will be automatically moved to the OLD_CONTRACT_PARM_LIST handbook.
- Records from the obsolete handbook that are not duplicates of the new handbook will be assigned the "New" value (new records that are not present in the CONTR_PARM table) or "Different" value (records are present in the CONTR_PARM table but there are differences in parameters of the record from the old and new handbook) in the *Validation Flag* field. For these records the [Messages] button will be available to view the latest messages on the results of the check.
- New records (with the "New" value) loaded into the old handbook can be added one-by-one to the new handbook, using the menu item "Add to new Contract Parameters Setup" from the [Actions] button. Then the check using the [Check] button must be repeated for the CONTR_PARM handbook (i.e. in the "Contract Parameters Setup form").
- For records with the "Different" value, all necessary changes must be manually made to the new handbook. Then, to move duplicates to the historic handbook, the [Check] button should be used to repeat the check in the "OBsolete Contract Parameters handbook" form.



When not all parameters of a record from the old handbook must be moved to the new one, after the check, the [Messages] button can be used in error messages to see which parameters for this record differ. If data on discrepancies is expected, a record with the CONTRACT_PARM_LIST code must be forcibly moved to history, regardless of the discrepancies. The "Remove" context menu command of the [Actions] button is used to do so.