States

Contents

Introduction

This document describes how WAY4™ States are configured. States are used to automatically execute certain actions when meeting specified conditions. For example, a State can be configured to automatically change the contract's Behaviour Group if the balance of any of its accounts is more than 0.

This document is intended for WAY4 users, bank or processing centre employees responsible for configuring WAY4. It provides information about actions that should be taken to register and configure States.

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

- WAY4™ Accounting Schemes
- Events
- Standing Payment Orders

The following conventions are used throughout this document:

- Field labels in screen forms are typed in *italics*.
- Button labels used in screen forms are placed in square brackets, such as [Approve].
- Menu selection sequences are shown with the use of arrows, such as Issuing → Contracts Input & Update → Events for Issuing Contracts.
- Warnings of possible erroneous actions are marked with the ⚠ sign.
- Messages marked with the ℹ sign contain information about important features, additional facilities, or the optimal use of certain functions of the system.

Chapter 1. Configuring States in WAY4

This section contains a description of State properties and setup of State parameters.

Definition and Basic Properties of States

States, as well as Events, are used to automatically execute certain actions in WAY4. Use of States for automatic execution of actions is based on the main property of States, their status. It can take on one of the two values: Active or Inactive. Statuses change when conditions set up for a State are met (or not met): when certain Events are opened/closed or statuses of other States change (see "State Conditions"). Thus, it is possible to create hierarchical trees where Events serve as "leaves" and States serve as "branches". An example of a hierarchical tree is shown below (see Fig. 1).

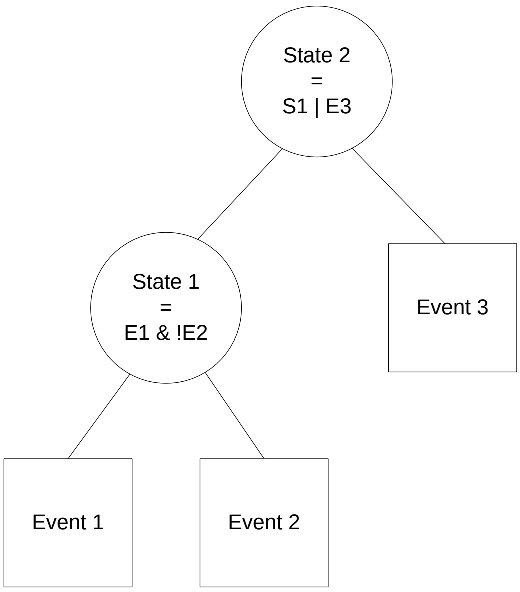

Fig. 1. Example of a State tree

In this tree, State 1 is active if Event 1 is open and Event 2 is closed; State 2 is active if either of two conditions is met: State 1 is active or Event 3 is open.

There are two substantial differences between Events and States.

The first difference is that, unlike Events, which may have certain duration, States are only characterised by their status.

The second difference is that, unlike Events, which can be opened or closed by users, States cannot change their status upon user command, because it would be against their inner logics.

State Parameters

This section describes setup of State parameters and the way of accessing information about contracts' States.

Form "Issuing Event States"

Basic State Parameters

Depending on the client category, new States are registered in one of the following forms:

- For Issuing contracts, the "Issuing Event States" form is used. To open this form, select the "Full → Configuration Setup → Products → Issuing Private Products → Issuing Event States" menu path.
- For Acquiring contracts, the "Acquiring Event States" form is used (Full → Configuration Setup → Products → Acquiring Products → Acquiring Event States).

The fields of these forms have the same structure, thus only the "Issuing Event States" form (see Fig. 2) is described below.

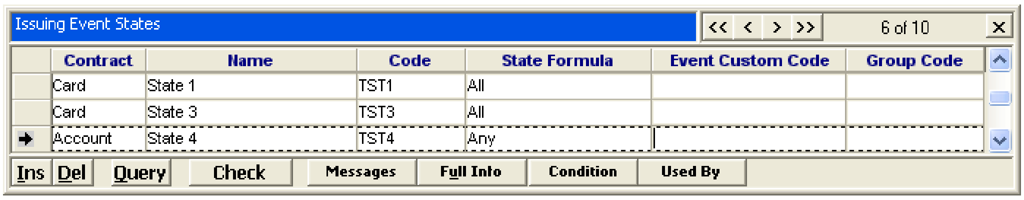

Fig. 2. Form for entering information about States

This form contains fields referring to the main State parameters.

The form also contains the following buttons:

- [Check] – used to check State parameters (see "Check of State Parameters")
- [Full Info] – used to access full information about a State (see "Full Information About States")
- [Conditions] – used to set up conditions under which a State is active (see "State Conditions")
- [Used By] – used to view dependent Events (see "State Hierarchy")

Full Information About States

To access more detailed information, click on the [Full Info] button. As a result, the screen will display the "Full Info for ‹State name›" form (see Fig. 3).

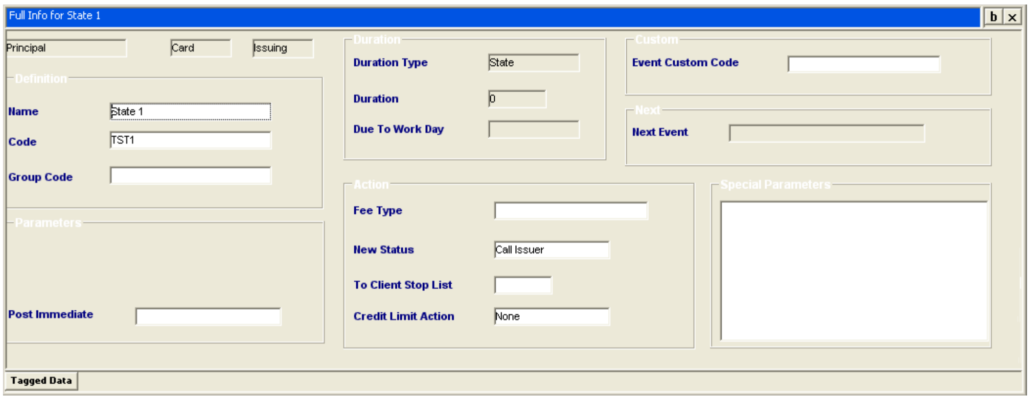

Fig. 3. Form for entering full information about a State

The fields of the "Full Info for ‹State name›" form are described below:

- *Name* – State name
- *Code* – code that is used to identify the State in the database
- *Group Code* – State group code that is used to filter States according to a certain criterion
- The *Post Immediate* field may take on one of the following values:
  - "Post Immediate" – the State will be processed immediately upon activation
  - "Post Later" – the State will be processed under the "Contracts Daily Update" procedure
  - "Post and Close Later" – the State will only be deactivated after all macrotransactions formed by its activation have been posted
- The fields of the "Duration" and "Next" groups are not editable as they are used for Events only
- *Fee Type* – type of the fee that is charged when the State is activated; this field contains a drop-down list of fee types registered in the system (to access the fee types dictionary, select the "Full → Configuration Setup → Transaction Types → Fee Types" menu item)
- *New Status* – status that the contract has while the State is active (when the State is deactivated, the initial value is assigned to the contract's status); to view the list of contract statuses registered in the system, open the "Contract Statuses" form (Full → Configuration Setup → Contract Types → Contract Statuses)
- *To Client Stop List* – determines whether or not the card will be in the stop list while the State is active; either "Yes' or "No" may be specified in this field
- *Credit Limit Action* – additional actions concerning the credit limit that can be executed when the State is activated; the field may take on one of the following values:
  - "Clear" – the contract's credit limit will be set to zero

- "Suspend" – the contract will be given an additional credit limit equal to the value of the base credit limit, but with the opposite sign. Thus, the credit limit will be completely eliminated from the Amount Available
- "None" (the default value) – no additional actions concerning the credit limit will be executed

- *Custom Event Code* – a custom code is specified in this field. It can be used in one of the following ways:
  - When a State with a code specified in the *Custom Event Code* field is activated, a custom procedure is initiated.
  - If the *Custom Event Code* field contains the "CALC_INT=‹account code 1, account code 2, ...›;" value, interest is accrued to the contract accounts whose codes are listed.

    It is necessary to use the ";" character in the "CALC_INT=‹account codes›;" value.

- The *Special Parameters* field can be used in one of the following ways:
  - If the "FROM_VALID" value is specified in this field, the State will only be activated for a contract with a Valid status (in the "Full → Configuration Setup → Contract Types → Contract Statuses" table, the *Is Valid* field for the status of the contract must contain the "Valid" value).
  - If the value is "NOT_BETTER" and the *New Status* field is filled in, the contract status will only be changed if the new status is higher in priority than the old one. The priority of statuses is determined by the value of the "PR" variable in the *Code Parms* field of the "Contract Statuses" grid form (Full → Configuration Setup → Contract Types → Contract Statuses). E.g. this field contains the "PR=43" variable for the "PickUp S 43" status and the "PR=5" variable for the "Card Do not honour" status. Thus, if a card has already been stolen, the "Card Do not honour" status will not be assigned to it when a State is activated as a result of an overdue loan.

State Conditions

The [Condition] button in the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters") is used to open the "Condition for ‹State name›" form (see Fig. 4).

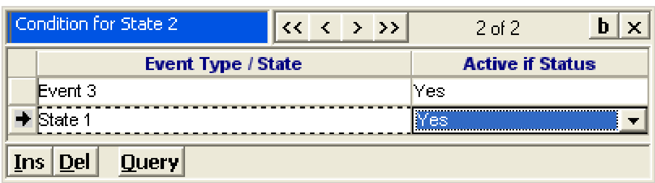

Fig. 4. Form for entering State activity conditions

To enter a new condition, click on the [Ins] button. For each condition, two fields are filled in:

- In the *Event Type / State* field, an Event or State whose status influences the activity of the current State is specified (in the Fig. 4, Event 3 and State 1 influence the activeness of State 2). The value of the field is selected from a drop-down list containing all Event Types and States registered in the system. To access the Event Types dictionary and the States dictionary, select the "Full → Configuration Setup → Products → Issuing Private Products → Issuing Event Types" and "Full → Configuration Setup → Products → Issuing Private Products → Issuing Event States" menu items for issuing contracts and the "Full → Configuration Setup → Products → Acquiring Products → Acquiring Event Types" and "Full → Configuration Setup → Products → Acquiring Products → Acquiring Event States" menu items for acquiring contracts.

- In the *Active if Status* field, the "Yes" value is specified if the Event (State) must be open (active); otherwise, the "No" value is specified.

The rule for activating/deactivating the State is specified in the *State Formula* field of the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters"). This field may contain one of the following values:

- "All" – the State is only active if all conditions specified in the "Condition for ‹State name›" form are met
- "Any" – the State is active if any of the conditions specified in the "Condition for ‹State name›" form is met

State Hierarchy

The [Used By] button in the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters") is used to open the "Used By for ‹State name›" form (see Fig. 5).

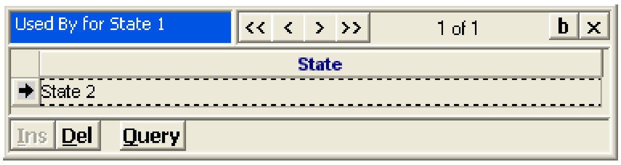

Fig. 5. Form containing information about the hierarchy of States

In this form, States whose activity depends on the current State's status are indicated (in the Fig. 5, only State 2 depends on State 1).

Check of State Parameters

The [Check] button in the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters") is used to check whether the State fields have been filled in correctly. After the check, the system informs users about its results.

Event (State) Log

The Events Log, which is opened by clicking on the [Events Log] button in the "Events for Issuing Contracts" form (Full → Issuing → Contracts Input & Update → Events for Issuing Contracts), registers information about all Events (States) that have ever been opened (activated), even if they are already closed (inactive). To view full information about the contract's active Events (States), click the [States] button. This will bring the "States for ‹name of contract›" form to the screen (see Fig. 6).

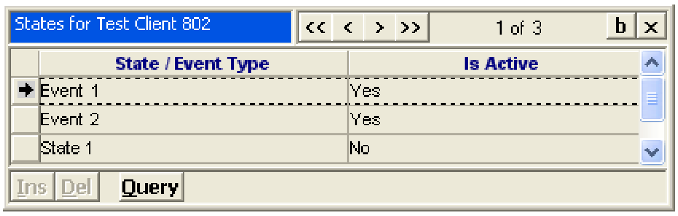

Fig. 6. Form containing information about open Events and active States

Chapter 2. Examples of States in Use

This section contains examples of the use of States in the system.

Monitoring Non-Zero Balances on Contract Accounts

One way of using States in the system is monitoring non-zero balances on contract accounts. Let us consider a specific example of this.

In the system, every contract contains a number of accounts. It is necessary for keeping account of funds in different currencies, keeping separate balances for transactions of different types, etc. To avoid complexity, let us consider a contract with only two accounts.

Let us assume that if the balance of at least one of the two accounts is higher than zero, it is necessary to automatically execute a certain action (e.g. to change the contract's Behaviour Type or to generate a document according to a standing payment order). This task can be fulfilled through States.

First of all, it is necessary to register two Event Types, Event 1 and Event 2 (see the "Event Types" section of the Events Administrator Manual). These Events will be automatically opened when an account balance is changed. For this, two account templates (e.g. "AS 1" and "AS 2") in the Accounting Scheme should be configured in the following way: for account template "AS 1", "Event 1" should be specified in the *Open/Close Event* field, for account template "AS 2", "Event 2" should be specified in this field (see the "General" section of the WAY4™ Accounting Schemes Administrator Manual). After some funds are transferred to any account of a contract that uses this template, an Event will be opened; when the account balance is set back to zero, the Event will be closed.

Then, it is necessary to configure a State that will be active if at least one of the Events ("Event 1" or "Event 2") is open. To do this, the "Any" value should be specified in the *State Formula* field of the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters") and the fields of the "Condition for State 1" form (see Fig. 4 in section "State Conditions") should be filled in.

When the balance of at least one account is other than zero, either "Event 1" or "Event 2" will be opened. As a result, "State 1" will be activated, which, depending on user configurations, may change the Behaviour Type of the contract or generate a document according to a standing payment order.

Special Case of Generating Documents according to Standing Payment Orders

In addition to manual management of standing payment orders, they can also be activated/deactivated automatically when a specific State is activated/deactivated. For this, use the second field in the *If Beh Type / State* group of fields in the "SO Full for ‹name of account template›" form (see section "Parameters of General/Template Standing Payment Orders" in the Standing Payment Orders Administrator Manual). This field contains a drop-down list of States registered in the system.

Let us consider an example in which States are used in a special case of generating documents. Let us assume that a document according to a certain standing payment order must be generated if Event 1 and Event 2 are open, but Event 3 is closed. To do this, a State ("State 1") with the "All" value in the *State Formula* field of the "Issuing Event States" form (see Fig. 2 in section "Basic State Parameters") should be configured. After that, the "Condition for State 1" form should be filled in as shown in Fig. 7.

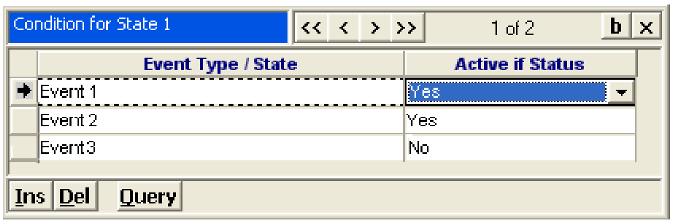

Fig. 7. Example of filling in the "Condition for ‹State name›"form

The last step is to generate a document according to a standing payment order. When configuring the standing payment order, the "Event Opened" value should be specified in the *Date Event* field, and the "State 1" value should be selected from the drop-down list in the *Event Type* field of the "SO Full for ‹account template name›" form (see section "Parameters of General/Template Standing Payment Orders" section in the Standing Payment Orders Administrator Manual).

If Event 1 and Event 2 are opened while Event 3 is closed, State 1 will be activated, and a document according to the standing payment order will be generated.