

WAY4 Manager Menu Editor

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Menu Editor: Introduction

WAY4 Manager users access forms and processes through the user menu.

The WAY4 Manager user menu is a hierarchical structure where items are brought together in groups, just as folders and files in the MS Windows Explorer.

By selecting a menu item, users start a sequence of steps performed by the system to ensure user access to information contained in the WAY4 database and/or to start a system process.

The sequence of steps performed by the program when an item is selected on the user menu is known as a menu item definition. A menu item definition contains menu subitems that either open specific editing windows (forms) on the screen or start specific processes.

Editing the menu means the following:


- Creating, deleting or renaming WAY4 Manager user menu items
- Creating, deleting or editing menu item definitions


This document is intended for WAY4 Manager users (bank or processing center employees) acting as system administrators.

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

- WAY4 Manager Manual
- WAY4 Manager Form Editor
- WAY4™ User Management


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.
- Item selection sequences, in the system menu, are shown with the use of different arrows, such as Database => Change password.
- Key combinations used while working with WAY4 Manager are shown in angular brackets, such as <Ctrl>+<F3>.
- The names of directories, files and file paths that vary for each local instance of the program are also displayed in angular brackets, as in <OWS_HOME>.
- The  sign warns that there is an increased chance of making an incorrect action.

- Messages marked with the  sign contain information about important features, additional facilities, or the optimal use of certain functions of the system.

Chapter 1. Editing the User Menu

This chapter contains basic definitions and describes methods of editing the user menu.

 Note that it is forbidden to edit the structure of the WAY4 Manager standard menu folder (editing user menu folders and items) supplied together with the system. This menu folder is named "OpenWay".

Menu Editor is started in one of the following ways:

- By selecting "Tools => Editors => Menu Editor" from the WAY4 Manager system menu
- By pressing <F10>
- By selecting [Edit] from the context menu opened in the user menu window

This will open the "Menu Editor" window (see Fig. 1).

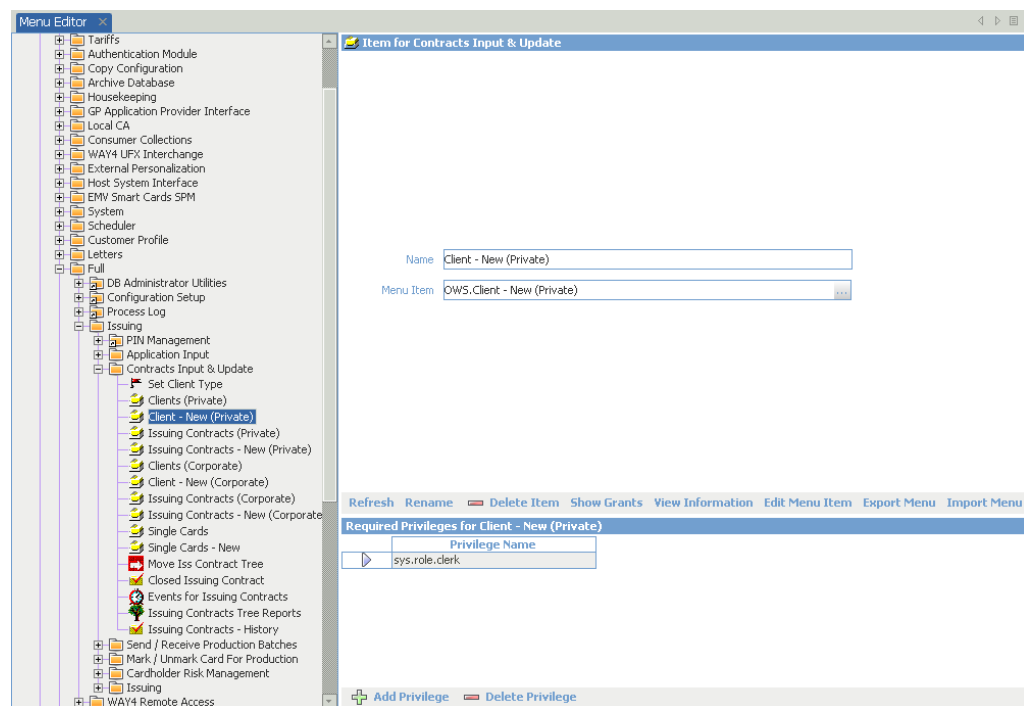





Fig. 1. Menu Editor window

The user menu is displayed as a hierarchical structure in the left-hand section of the window.

The user menu consists of:

- Menu folders marked with the  icon
- Menu items marked with the icons of the corresponding menu item definitions
- Links marked with the  sign added to the icons of menu folders or items

A form with a description of main properties of an item is displayed in the right-hand section of the window. The name of the form and its buttons depend on the selected user menu item.

The "Required Privileges for <name of item>" form is used to grant access privileges to users and user groups that will have access to this menu item (for more details on access privileges, see section "WAY4 System Users" in the WAY4™ User Management Administrator Manual). To add access privileges registered in the system, click the  button. As a result, the "Add Privilege for <name of menu item>" form will be displayed.

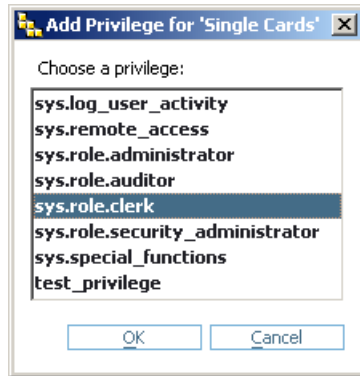


Fig. 2. Granting privileges for a user menu item

After selecting necessary access privileges, click [OK]; to cancel the action, click [Cancel].

To delete a role from the "Required Privileges for <name of item>" form, use the  button.


Menu Folder

A menu folder is an element of the hierarchical structure of the user menu. It may contain menu folders next level down, menu items and links to menu folders and/or items contained in other sections of the user menu.

Menu folders are marked with  icons.

Adding Menu Folders

To add a menu folder, select in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") a folder to which the new folder will be added and then proceed in one of the following ways:

- Right-click the selected folder and select "Add Menu" from the context menu that opens.
- Click the  button in the "Folder for <name of parent menu folder>" form.

As a result, a new folder named "New Menu 1" will be added in the user menu.

Renaming Menu Folders

To rename a menu folder, click the necessary folder in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") and proceed in one of the following ways:


- Enter the necessary folder name in the *Name* field of the "Folder for <name of parent menu folder>" form.
- Click the [Rename] button in the "Folder for <name of parent menu folder>" form and then enter the necessary folder name.

- Right-click the selected folder and select "Rename" from the context menu that opens. Then, enter the necessary folder name.


Note that the new folder name will be immediately available in the user menu.

Deleting Menu Folders

To delete a menu folder, click the necessary folder in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") and proceed in one of the following ways:

- Press the <Delete> key.
- Right-click the selected folder and select "Delete Menu" from the context menu that opens.
- Click the  button in the "Folder for <name of parent menu folder>" form.

As a result, a dialogue box with the "Do you really want to perform Delete Menu?" prompt will be displayed on the screen. To confirm deletion, click [Yes]; to cancel the action, click [No].

 Users should be careful when deleting menu folders since this can action render specific system resources inaccessible to users.

Menu Folder Parameters

To access menu folder parameters, use buttons in the "Folder for <name of parent menu folder >" form of the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu").

Information about menu folder parameters can also be accessed through the context menu opened by right-clicking the name of the corresponding folder (see Fig. 3).

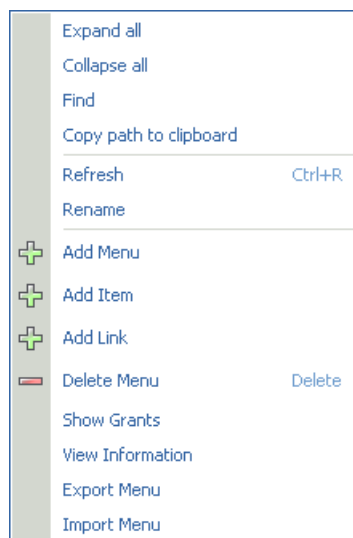


Fig. 3. Context menu of a folder

This context menu contains the following items:

- "Expand all" – expand the menu folder and all child folders
- "Collapse all" – collapse the menu folder

- "Find" – find a folder or an item in the user menu; after this command is selected, enter the first letters of the name of the menu folder or item
- "Copy path to clipboard" – copy the name of the folder and the path to the folder in the user menu to the clipboard
- "Refresh" – refresh user menu data
- "Rename" – rename the menu folder
- "Add Menu" – add a menu folder (see "Adding Menu Folders")
- "Add Item" – add a menu item (see "Adding Menu Items")
- "Add Link" – add a link (see "Adding Links")
- "Delete Menu" – delete a menu folder (see "Deleting Menu Folders")
- "Show Grants" – show what privileges are necessary to access the menu folder
- "View Information" – show the position of the selected folder in the hierarchical structure of the user menu
- "Export Menu" – export menu folders or items (see "Exporting Menu Folders and Items to a File")
- "Import Menu" – import menu folders or items (see "Importing Menu Folders and Items from a File")

Menu Item

A menu item is an element of the hierarchical structure of the user menu. Menu items are used to start a sequence of actions performed by the system.

When a menu item is selected, the right-hand section of the Menu Editor window contains the "Item for <name of folder containing this menu item>" form (see Fig. 4).





Fig. 4. Menu item properties

This form contains the following fields:

- *Name* – menu item name
- *Menu Item* – menu item definition corresponding to this item

To assign another menu item definition to a menu item, click the  button in the *Menu Item* field. As a result, the "Choose Menu Item Definition" window will be displayed on the screen. It contains a list of menu item definitions created in WAY4 Manager (see Fig. 5).

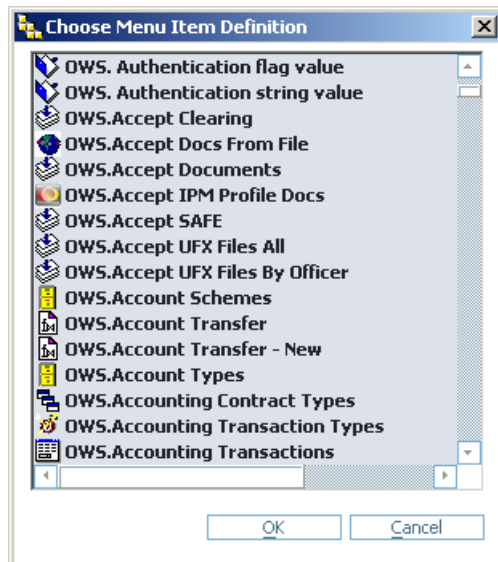


Fig. 5. List of WAY4 Manager menu item definitions


After selecting the necessary menu item definition, click [OK]; to cancel the action, click [Cancel].

The function of buttons in the "Item for <name of folder containing this menu item>" form and of the same-name items in the context menu of a menu item is the same as the function of the corresponding items in the context menu of a menu folder (see "Menu Folder Parameters").

Clicking the [Edit Menu Item] button opens Menu Item Definition Editor (see "Working with Menu Item Definition Editor").

Adding Menu Items

To add a menu item, select in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") a folder to which the menu item will be added and then proceed in one of the following ways:

- Right-click the selected folder and select "Add Item" from the context menu that opens.
- Click the  Add Item button in the "Item for <name of folder containing this menu item>" (see the figure Fig. 4 in section "Menu Item") form.

As a result, the "Choose Menu Item Definition" window (see the figure Fig. 5 in section "Menu Item") will be displayed. In the window, select the necessary definition and click [OK]. To cancel addition of a menu item, click [Cancel].



To add a menu item with a new definition, it is first necessary to enter the new menu item definition in the list (see "Creating Definitions").

Renaming Menu Items

Menu items are renamed in the same way as menu folders (see "Renaming Menu Folders").

Deleting Menu Items

To delete a menu item, select the necessary item in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") by clicking it and then proceed in one of the following ways:

- Press the <Delete> key.

- Right-click the selected menu item and select "Delete Item" from the context menu that opens (see Fig. 6).

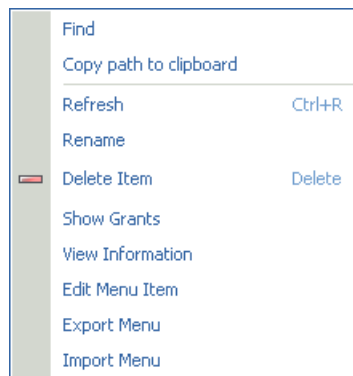




Fig. 6. Context menu of an item


- Click the  button in the "Item for <name of folder containing this menu item>" form (see the figure Fig. 4 in section "Menu Item").

As a result, a dialogue box with the "Do you really want to perform Delete Item?" prompt will be displayed on the screen. To confirm deletion, click [Yes]; to cancel the action, click [No].

 It is recommended that users be careful when deleting menu items since this action can render specific system resources inaccessible to users. At the same time, note that deleting an item from the user menu does not delete the definition of the item from the list of definitions.


Links

Users can create links to menu folders and items to configure the user menu to suit their individual needs.

Creating a link means adding to the user menu a copy of a menu folder or item linked to the menu folder or item. Links are marked in the menu with  signs added to the icons of menu folders or items.

The system of links allows users to regroup menu items according to users' wishes without changing the structure of the menu supplied by the system vendor.

The user menu may change after system upgrade or menu upgrade. To make sure that links reflect user menu changes that occurred as a result of upgrade, select "Synchronise" from the context menu of a link (see Fig. 7) or click the [Synchronise] button in the "Link Item for <...>" or "Link Folder for <...>" form of the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu").

 When the "Synchronise" item is executed after a menu item for which a link is created is deleted or renamed, the corresponding link will also be deleted or renamed.

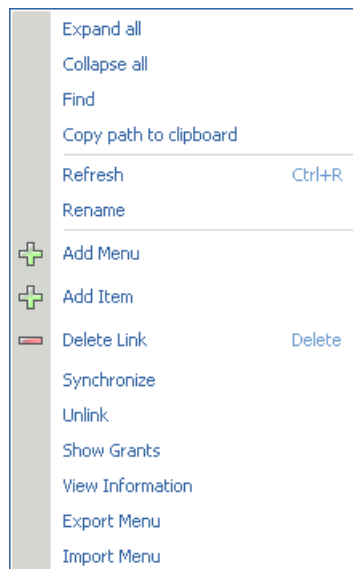



Fig. 7. Context menu of a link

Adding Links

To add a link, select in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") a folder to which the link will be added and then proceed in one of the following ways:

- Right-click the selected folder and select "Add Link" from the context menu that opens.
- Click the  **Add Link** button in the "Folder for <name of parent menu folder>" form.

As a result, the "Select Item or Menu" window will be displayed on the screen. The window shows the user menu tree.

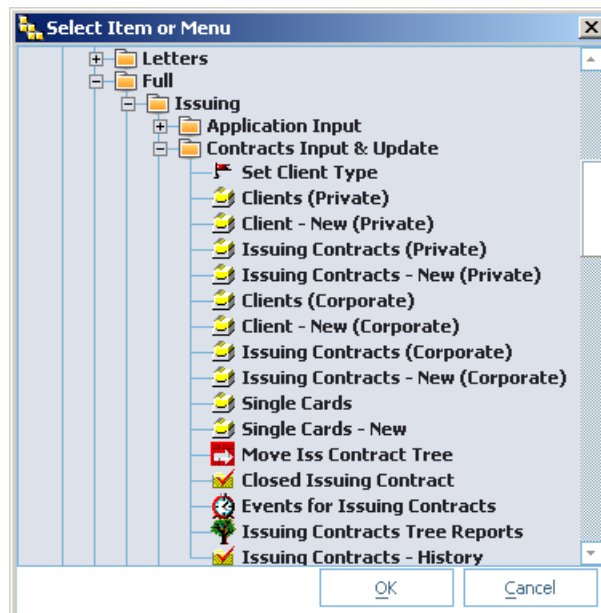



Fig. 8. User menu tree

In the window, select the menu folder or item a link to which is required and click [OK]; to cancel addition of a link, click [Cancel].


Renaming Links

Links are renamed in the same way as menu folders (see "Renaming Menu Folders").


 Note that when the "Synchronise" context menu item is executed, the old name of the link will be restored.

Deleting Links

To delete a link, select the necessary link in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") by clicking it and then proceed in one of the following ways:

- Press the <Delete> key.
- Right-click the selected link and select "Delete Link" from the context menu that opens.
- Click the  button in form "Link Item for <...>" (for links to menu items) or "Link Folder for <...>" (for links to menu folders) of the Menu Editor window.

As a result, a dialogue box with the "Do you really want to perform Delete Link?" prompt will be displayed on the screen. To confirm deletion, click [Yes]; to cancel the action, click [No].

 Note that when the "Synchronise" context menu item is executed for the menu folder that contained the deleted link, the link will be restored.

Unlinking Links and Menu Items

To unlink a link from a menu item, select the necessary link in the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") by clicking it and then proceed in one of the following ways:

- Right-click the selected link and select "Unlink" from the context menu that opens.
- Click the [Unlink] button in form "Link Item for <...>" (for links to menu items) or "Link Folder for <...>" (for links to menu folders) of the Menu Editor window.

As a result, the link will be unlinked from the menu item, while the item remains unchanged. Note that when a link is unlinked from a menu folder, it will automatically be unlinked from all items contained in the folder.

Chapter 2. Working with Menu Item Definition Editor

This section describes the principles of operation of Menu Item Definition Editor.



Note that it is forbidden to edit the structure of the WAY4 Manager standard menu folder (editing user menu folders and items as well as menu item definitions) supplied together with the system. This menu folder is named "OpenWay".

Menu Item Definition Editor can be started in two ways:

- By selecting "Tools => Editors => Menu Item Editor" from the system menu (or pressing the <F7> functional key)
- By clicking the [Edit Menu Item] button in the "Item for <name of folder containing this menu item>" form (see the figure Fig. 4 in section "Menu Item").

As a result, the Menu Item Definition Editor window (see Fig. 9) will be displayed on the screen.

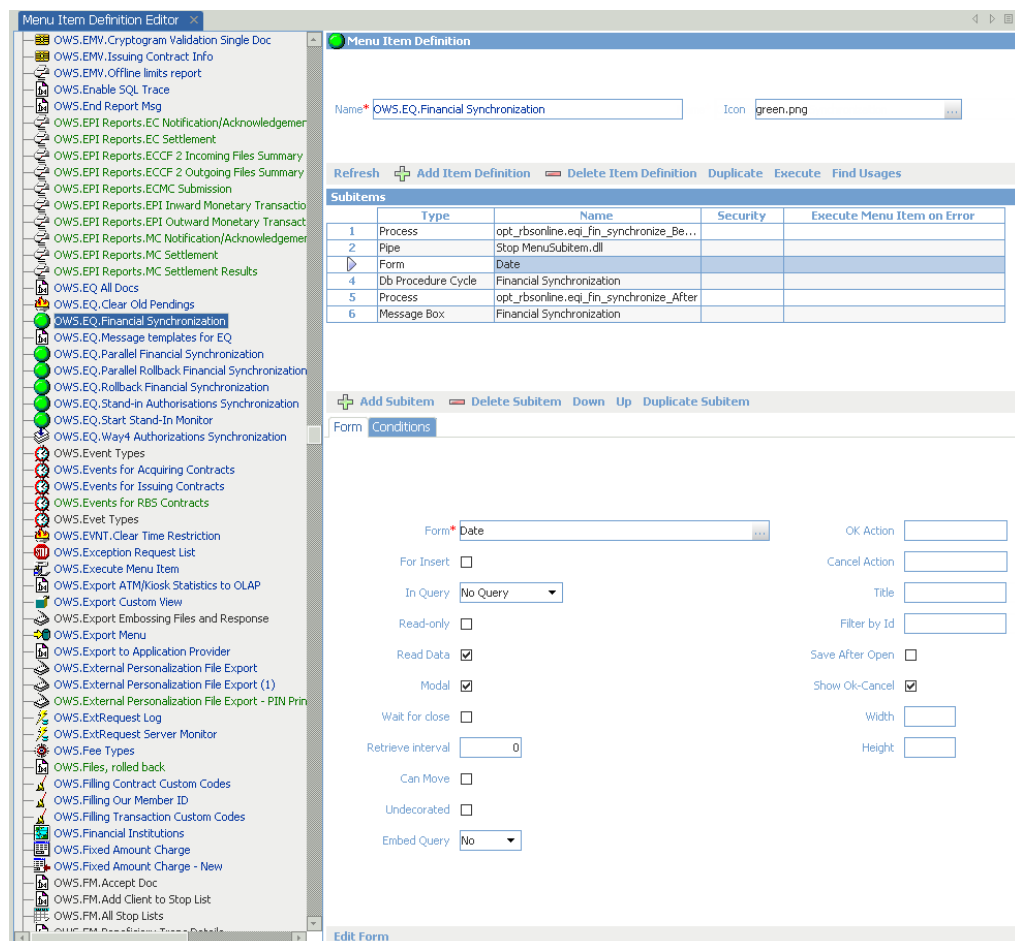




Fig. 9. Window of Menu Item Definition Editor

The left-hand section of the window contains an alphabetically sorted list of menu item definitions created in the system.

The "Menu Item Definition" form contains main parameters of the current menu item definition.

The "Subitems" form and its child forms contain a list of subitems of the current menu item definition and their parameters.

 Fields of Menu Item Definition Editor marked by the "*" character are mandatory.

 Menu item definitions supplied together with the system distribution kit and correspondingly stored in the <OWS_HOME> directory are considered standard. Names of standard menu item definitions contain the "OWS" prefix. It is forbidden to edit them in any way or delete them.

Standard menu item definitions may only be modified by OpenWay specialists and are only updated during system version upgrade.

When standard definition are edited (modified), e.g. definition names are translated into a national language, and when system users create custom definitions, copies of the definitions are created in the <OWS_WORK> directory. When users work with the system, the custom definitions will be opened instead of the standard ones. Names of standard definitions are shown in black, names of custom definitions, in green, names of edited standard definitions, in blue.

Editing Menu Item Definitions

Main properties are specified in the "Menu Item Definition" form (see Fig. 10) of the Menu Item Definition Editor window.

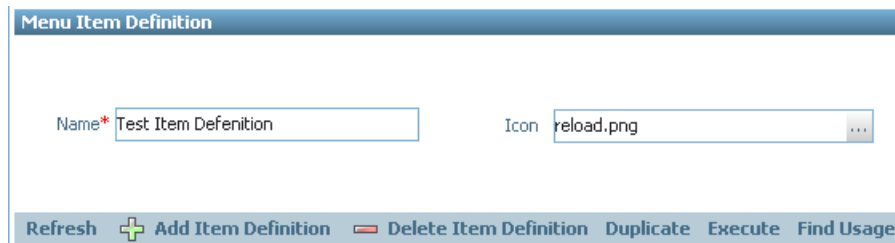


Fig. 10. Main properties of a menu item definition

This form contains the following fields:

- *Name** – menu item definition name
- *Icon* – name of the graphic .png file containing the icon of the menu item definition


The [Refresh] button is used to refresh Menu Item Definition Editor data.

Buttons [Add Item Definition] and [Duplicate] are used to create menu item definitions (see "Creating Definitions").

To delete a definition, use the [Delete Item Definition] button (see "Deleting Definitions from the List").

Clicking the [Execute] button executes a menu item definition.

The [Find Usage] button is used to search for links between this definition and forms, menu items and other definitions (see "Search by Links").

 The context menu opened by right-clicking a menu item definition contains items whose names are the same as the labels of the buttons used in this form.

Creating Definitions

There are two ways to add a menu item definition to the list generated in the system:

- To create a menu item definition
- To copy an existing menu item definition and edit it

To create a menu item definition, click the [Add Item Definition] button in the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions") or select "Add Item Definition" from the context menu opened by right-clicking the Menu Item Definition Editor window (see the figure Fig. 9 in section "Working with Menu Item Definition Editor"). This will open the "WAY4Manager" form (see Fig. 11). In this form, enter the name of the item definition and click [OK]. To cancel creation of a definition, click [Cancel].

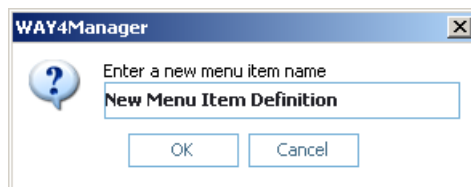


Fig. 11. Entering an item definition name

As a result, a new definition containing no subitems will be added to the list.


To create a copy of an existing menu item definition, click the [Duplicate] button in the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions"). Then, enter the name of the item definition in the "WAY4Manager" form that opens (see Fig. 11) and click [OK].


As a result, a definition whose parameters and list of subitems correspond to the original menu item definition will be added to the list.

Deleting Definitions from the List

To delete the current menu item definition, click the [Delete Item Definition] button in the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions").

As a result, a dialogue box with the "Do you really want to perform Delete Item Definition?" prompt will be displayed on the screen. To confirm deletion, click [Yes]; to cancel deletion, click [No].

 If at least one menu item has been created using this definition or the definition is included in other menu item definitions (see section "Search by Links"), the menu item definition cannot be deleted. The following message will be displayed on the screen: "The menu item definition you want to delete is used in the following menu item definitions: <...>".


 Note that deleting menu item definitions may have substantial impact and render specific system resource inaccessible to users.

Renaming Menu Item Definitions

To rename a menu item definition, enter a new name in the *Name** field of the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions").

The "OWS" prefix in a name shows that this is a standard menu item definition supplied by the system vendor. Menu item definitions with this prefix can change during system upgrade (see chapter "Importing and Exporting the User Menu"). Therefore, it is forbidden to edit such definitions. When it is necessary to change them, it is recommended that new definitions (not containing the "OWS" prefix in their names) that will not change during system upgrade be created.

Changing Icons of Menu Item Definitions

To specify the icon of a menu item definition, click the  button found to the right of the *Icon* field in the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions"). As a result, the "Select Icon" window (see Fig. 12) will be displayed.

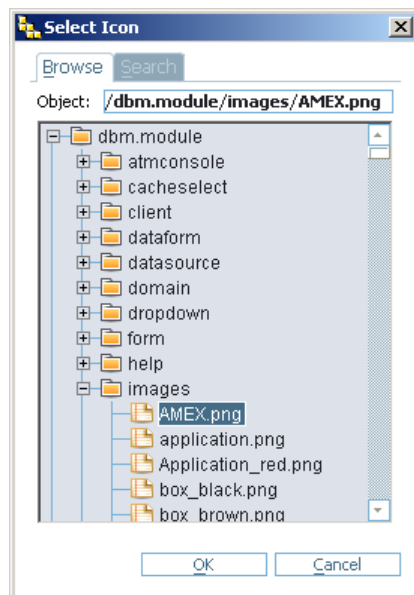


Fig. 12. Selecting a menu item definition icon

There are two ways to select a graphic .png file:

- Specify the path and name of a file in the "Browse" tab and click [OK].
Note that this tab shows directories and .png files found in "<OWS_name_of_directory>\Client\Way4manager\components" subdirectories of standard system directories <OWS_HOME> and <OWS_WORK>.
- Enter the first letters of the name of a graphic file in the *Search for:* field in the "Search" form, select the necessary value from the list opened in the lower field, and click [OK].

After an icon file is specified, the corresponding image will be displayed to the left of the menu item definition name in the Menu Item Definition Editor window (see the figure Fig. 9 in section "Working with Menu Item Definition Editor")) and to the left of the name of the corresponding user menu item.

Search by Links

To search for links between a menu item definition and forms, menu items and other menu item definitions, click the [Find Usage] button in the "Menu Item Definition" form (see the figure Fig. 10 in section "Editing Menu Item Definitions"). As a result, the "<name of menu item definition> Usages" window (see Fig. 13) will be displayed.

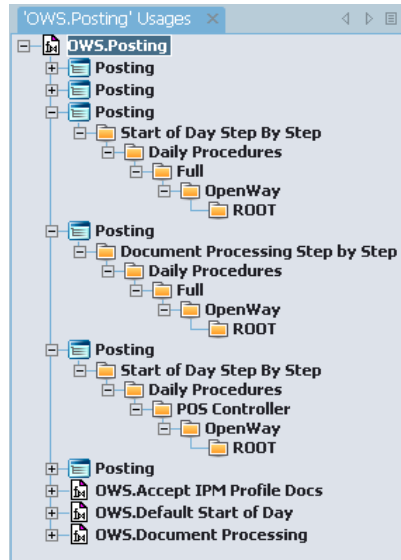






Fig. 13. Menu item definition in a hierarchical structure

This window shows a hierarchical diagram representing links between a specific menu item definition and menu items, forms or other definitions up to the root level. The following icons are used in the window to show different objects:

-  –menu folder
-  – menu item
-  – menu item definition
-  –form

Editing Menu Subitems

To edit subitems of menu item definitions, use the "Subitems" form (see Fig. 14) of the Menu Item Definition Editor window and its child forms and windows whose names depend on the subitem type.

Subitems				
	Type	Name	Security	Execute Menu Item on Error
1	Form	Date From - To		
	Oracle Report	ATM_Balances.rdf		
3	Menu Item	OWS.GL Account Plan		






 Add Subitem
  Delete Subitem
  Down
  Up
  Duplicate Subitem

Fig. 14. List of subitems

The "Subitems" form contains an ordered list of menu item definition subitems.

The following fields are used in the form:

- *Type* – subitem type; the field can take on one of the following values:

- "Form" – open a form for viewing and editing data
- "Screen" – display a screen (a set of forms)
- "Assignment" – assign local constant values for the current WAY4 Manager session
- "Menu Item" – start a menu item registered in the system
- "Pipe" – start a C pipe
- "Java Pipe" – start a Java pipe
- "Oracle Report" – start the Oracle Report generator
- "EXE File" – start an executable file of the operating system
- "Sql" – execute an SQL expression or program file
- "Process" – start a stored procedure executed by the database server
- "Db Procedure Cycle" – execute a stored database procedure for all table rows that meet specified conditions
- "Sql Cycle" – execute the specified SQL expression for all table rows that meet the specified condition
- "Db Row Procedure" – execute a stored database procedure for the current table row
- "Java Class" – start an external Java application to perform specific actions, e.g. to export XML data from the database; this subitem type may only be used by OpenWay specialists
- "Message Box" – display a message window on the screen
- "Change Password" – display the password change window; this subitem type is used without parameters
- "Voice Authorisation" – open the voice authorisation interface for bankcard requests
- "Luhn Calculator" – calculate a Luhn digit for the number entered by the user; this subitem type is used without parameters
- "User Management" – open the "User Management" window; this subitem type is used without parameters
- "Save Current" – save current changes
- "Microhelp Drawer" – refresh the status bar, this subitem type is used without parameters
- "Blob Management" – execute an action (loading, opening, saving) with BLOB objects (Binary Large Object). This subitem type is used, for example, if files must be saved in the database (documents, images, software code)
- "Run Script" – run a JavaScript script
- "Flag" – specify or delete a special parameter (flag); subitems of this type are used when working with WAY4 Scheduler (see the document "Scheduler R2")

- "Waiting Files" – wait until the specified file appears in the specified directories; subitems of this type are used when working with WAY4 Scheduler (see the document "Scheduler R2")
- "Send mail" – a message will be sent by e-mail.
- "Other" – execute a special software module on the client's workstation; this subitem type may only be used by OpenWay specialists
- *Name* – subitem name
- *Security* – drop-down list for specifying user privileges necessary to start this menu item (see section "Configuring Privilege Packages" in the WAY4™ User Management Administrator Manual)
- *Execute Menu Item on Error* – menu item definition that will be executed if business logic errors occur during execution of this subitem. This mechanism is used for exception handling that requires violation of the order for executing menu subitems defined in this menu item. Such an exception may be, for example, the absence of an imported file in a specific directory.

If system errors occur (for example, an SQL Error), the menu item definition specified in this field will not be executed.



It is recommended to use this field when working with Scheduler (see the document "Scheduler R2") and only for the menu subitem types "Sql", "Flag", "Waiting Files" and "Java Pipes".

To add a subitem, click the [Add Subitem] button.

To create a copy of an existing subitem, click the [Duplicate Subitem] button.

To delete a subitem, click the [Delete Subitem] button. As a result, a dialogue box with the "Do you really want to perform Delete Subitem?" prompt will be displayed on the screen. To confirm deletion, click [Yes]; to cancel deletion, click [No].

Buttons [Up] and [Down] move a subitem one position up and down, respectively.



Note that deleting subitem definitions may have substantial impact and render specific system resource inaccessible to users.

Type "Form"







When a subitem of the "Form" type is executed, the specified form is displayed on the screen. Main parameters of a subitem of this type are shown in the "Form" tab (see Fig. 15).

The screenshot shows the 'Conditions' tab for a 'Form' type subitem. The 'Form*' field is set to 'Date'. The 'For Insert' checkbox is unchecked. The 'In Query' dropdown is set to 'No Query'. The 'Read-only' checkbox is unchecked. The 'Read Data' checkbox is checked. The 'Modal' checkbox is checked. The 'Wait for close' checkbox is unchecked. The 'Retrieve interval' is set to 0. The 'Can Move' checkbox is unchecked. The 'Undecorated' checkbox is unchecked. The 'Embed Query' dropdown is set to 'No'. On the right side, there are input fields for 'OK Action', 'Cancel Action', 'Title', 'Filter by Id', 'Save After Open', 'Width', and 'Height'. The 'Show Ok-Cancel' checkbox is checked. At the bottom left, there is an 'Edit Form' button.

Fig. 15. Parameters of a subitem of the "Form" type

This tab contains the following fields:

- **Form*** – drop-down list of forms registered in the system (see section "Starting Form Editor" in the WAY4 Manager Form Editor Administrator Manual). To open the list of forms, click the button.
 - **For Insert** – when the box is checked, the form is only used to add records, and data is not read from the database when the form is opened
 - **In Query** – method of specifying preliminary data selection for the specified form (see section "Preliminary Record Selection by Arbitrary Criteria" in the WAY4 Manager Administrator Manual):
 - "No Query" – no preliminary data selection window will be displayed when the form is opened
 - "Free Query" – preliminary selection can be performed both by criteria specified by users and by queries entered in advance
 - "Prepared Query" – preliminary selection can only be performed by queries entered in advance
 - **Read-only** – when this box is checked, the form fields cannot be edited; otherwise, this is determined by form field editing parameters (see section "Form Editor Window. "Fields" Tab" in the WAY4 Manager Form Editor Administrator Manual).
- Note that if in parameters of the Editor's subform on the "Links" tab the "Edit Mode" field's value is "Default", and column parameters of the subform have the "Editable" flag while settings of the main menu item of the "Form" type have the "Read-only" flag in parameters, the subform will not be editable.
- **Read Data** – when this box is checked, data will be read from the database while the form is opened; otherwise, the form will contain no data
 - **Modal** – form modality checkbox. When this box is checked, data can only be entered and edited in this form after the form is opened, while other forms become inaccessible for entering and editing data.

- *Wait for close* – when this box is checked, the next subitem can only be executed after this form is closed.
 This checkbox is only available when the *Modal* box is not checked.
- *Retrieve interval* – time interval (in seconds) at which the contents of the form is refreshed. If the field contains "0", data will only be read from the database when the form is opened.
- *Can move* – when this box is checked, users can drag the form while the right mouse button is pressed down
 This checkbox is only available when the *Modal* box is checked.
- *Undecorated* – when this box is checked, the title of the form will not be displayed in the MS Windows style
 This checkbox is only available when the *Modal* box is checked.
- *Embed Query* – determines whether the preliminary data selection dialogue window will be displayed on the same tab with this form:
 - "Yes" – the data selection window is displayed together with the form
 - "No" (default value) – the data selection window is not displayed together with the form
- *OK Action* – name of the associated procedure performed when the [OK] button is clicked in the form; parameters of the associated procedure are specified in the "Actions" tab of the Form Editor window (see section "Form Editor Window. Tab "Actions"" in the "WAY4 Manager Form Editor Administrator Manual")
 This checkbox is only available when the *Modal* box is checked.
- *Cancel Action* – name of the associated procedure executed when the [Cancel] button is clicked in the form; parameters of the associated procedure are specified in the "Actions" tab of the Form Editor window (see the section "Form Editor Window. "Actions" Tab" in the document "WAY4 Manager Form Editor").
 This field is only available when the *Modal* box is checked.
- *Title* – form title.
- *Filter by Id* – form record ID according to which data is filtered in the form before displaying the form on the screen.
- *Save After Open* – when this box is checked, the opened form's data will automatically be saved in the database.
- *Show OK-Cancel* – when this box is checked, the [OK] and [Cancel] buttons will be present in the form.
- *Width* – form width in pixels.
- *Height* – form height in pixels.
 The *Show OK-Cancel*, *Width* and *Height* fields are only available if the *Modal* box is checked.

Clicking the [Edit Form] button in the form opens Form Editor for the form (see the WAY4 Manager Form Editor Administrator Manual).

The "Conditions" tab (see Fig. 16) is used to specify whether the condition specified in the "Conditions" tab of the Form Editor window is true or false (see section "Form Editor Window. "Conditions" Tab" in the WAY4 Manager Form Editor Administrator Manual).

Conditions for Form		
	Name	Enable
1	Condition 1	<input checked="" type="checkbox"/>
	Condition 2	<input type="checkbox"/>

+ Add Condition - Delete Condition

Fig. 16. Tab "Conditions"

This tab contains the following fields:

- *Name* – condition name
- *Enable* – when this box is checked, the condition specified in the "Conditions" tab is considered true; otherwise, it is considered false

Buttons **Add Condition** and **Delete Condition** are used to add and delete conditions, respectively.

Type "Screen"

When a subitem of the "Screen" type is executed, a screen (a set of forms) is displayed on the screen. Main parameters of a subitem of this type are shown in the "Screen" tab (see Fig. 17).

Screen Conditions

Title

Script Title ☐

Screen*

Icon

Modal ☒

Wait for close ☐

Use Desktop ☒

Undecorated ☐

Read Data ☒

Show Ok-Cancel ☐

Width

Height

Edit Form

Fig. 17. Parameters of a subitem of the "Screen" type

This tab contains the following fields:

- *Title* – screen title
- *Screen** – drop-down list of screens registered in the system; to open the list, click the button.
- *Script Title* – when this box is checked, the value of the *Title* field will be interpreted as a JavaScript script
- *Icon* – name of the graphic file containing the icon used for this screen; to select a file, click the button

- *Modal* – screen modality checkbox. When this box is checked, data can only be entered and edited in an opened window after the screen is opened, while other forms become inaccessible for entering and editing data.
- *Wait for close* – when this box is checked, the next subitem can only be executed after this screen is closed



This checkbox is only available when the *Modal* box is not checked.

- *Use Desktop* – when this box is checked, the screen will be displayed as a child MDI (Multiple Document Interface) window
- *Undecorated* – when this box is checked, the title of the form will not be displayed in the MS Windows style



This checkbox is only available when the *Modal* box is checked.

- *Read Data* – when this box is checked, data will be read from the database while the form is opened; otherwise, the form will contain no data.
- *Show OK-Cancel* – when this box is checked, the screen will contain the [OK] button.
- *Width* – screen width in pixels.
- *Height* – screen height in pixels.



The *Show OK-Cancel*, *Width* and *Height* fields are only available if the *Modal* box is checked.

The "Conditions" tab of the "Screen" subitem is the same as the "Conditions" tab of the "Form" subitem (see the figure Fig. 16 in section "Type "Form"").

Type "Assignment"

Executing a subitem of this type changes local constants for the current WAY4 Manager session. Values are assigned to local constants in fields of the "Assignment parameters for <name of subitem>" form (see Fig. 18).

Fig. 18. Parameters of a subitem of the "Assignment" type

Values of local constants are selected from a list or entered on the keyboard. An empty field in the above dialogue window means that this menu subitem is not influenced by the value of the corresponding local constant.

This subitem type does not allow for setting local constant values to NULL. For this, use a subitem of the "SQL" type (see "Type "Sql"").

Type "Menu Item"

When a subitem of this type is executed, actions specified in the corresponding menu item definition are performed. Subitem parameters are specified in the "Menu Item Parameters for <...>" form (see Fig. 19).

Fig. 19. Parameters of a subitem of the "Menu Item" type

To specify a menu item definition, click the button in the *Menu Item* * field. As a result, the "Choose Menu Item Definition" window will be displayed on the screen (see the figure Fig. 5 in section "Menu Item"). It contains a list of menu item definitions created in WAY4 Manager.

Clicking the [Edit Menu Item] button opens Menu Item Definition Editor for the specified menu item definition.

Type "Pipe"

Executing a subitem of the "Pipe" starts a C pipe. Main parameters of a subitem are specified in the "Pipe" form, additional parameters, in the "Additional Parameters for Pipe" form (see Fig. 20).

Process	Name	Value
	NAME_PREFIX	T
2	DOC_PROCESSING	APPROVE

Fig. 20. Parameters of a subitem of the "Pipe" type

The "Pipe" form contains the following fields:


- *Pipe Name** – drop-down list for selecting a pipe name; to open the list of pipe names, click the button.
- *Confirm Execution* – when this box is checked, a prompt to confirm pipe execution is displayed before the pipe is started; in case of a negative response, the pipe is not started.
- *Is Unique* – when this box is checked, only one instance of the pipe can be executed at the same time (on the same workstation during the same WAY4 Manager session).

- *Dialog Type* – a pipe can be executed in one of the following modes:
 - "Interactive" – pipe execution is shown in the corresponding dialogue box
 - "Errors only" – a dialogue box only shows errors that occur during pipe execution
 - "Silent" – during execution of the pipe, only the progress bar is displayed and logging is maintained in the process log. Auxiliary dialog windows (for example, the file selection window, window confirming the execution of various actions) are not displayed

The "Additional Parameters for Pipe" form (see Fig. 20), used to specify pipe parameters, contains the following fields:

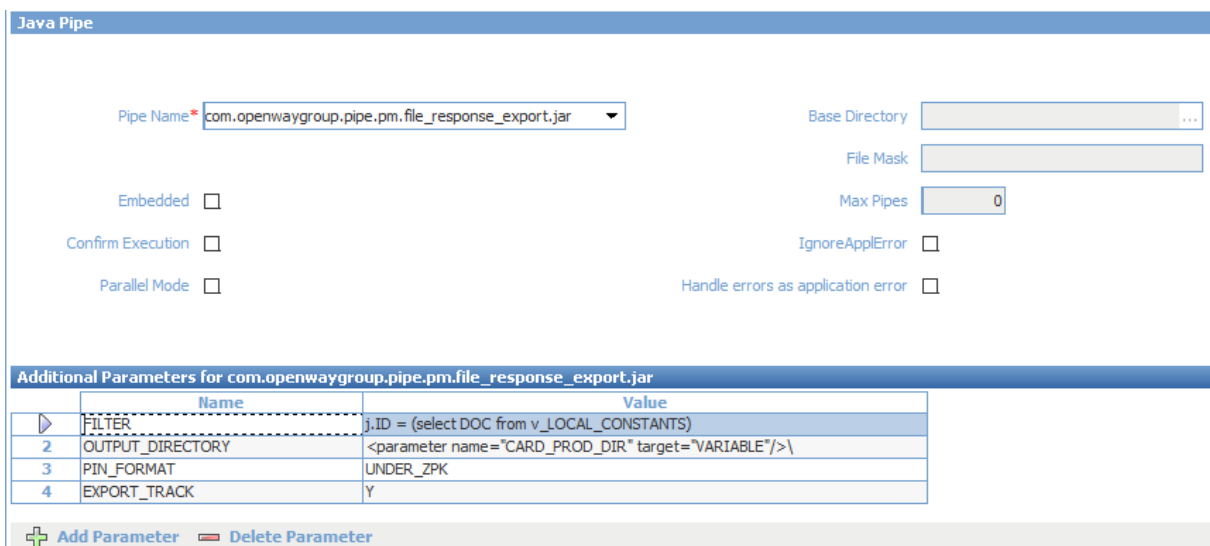
- *Process* – this field is used to enable parallel mode. The mode is only used for pipes importing and exporting data from files and increases performance when executing a large number of similar operations. In this case, process identifiers are specified in the *Process* field. The number of different identifiers is the number of parallel executed processes. Pipe parameters for which the same value is specified in the *Process* field belong to the same process. Parameters for which the *Process* field is not filled in are common to all processes.
- *Name* – pipe parameter name.
- *Value* – parameter value.

To add a parameter, click the  **Add Parameter** button; to delete a parameter, click the  **Delete Parameter** button.

 Note that each pipe has a unique set of parameters and their values. For details on pipe parameters, see the corresponding documents from OpenWay's documentation series.

Type "Java Pipe"

Executing a subitem of the "Java Pipe" type starts a Java pipe. Main parameters of a subitem are specified in the "Java Pipe" form, additional parameters, in the "Additional Parameters for <...>" form (see Fig. 21).




Additional Parameters for com.openwaygroup.pipe.pm.file_response_export.jar		
	Name	Value
1	FILTER	j.ID = (select DOC from v_LOCAL_CONSTANTS)
2	OUTPUT_DIRECTORY	<parameter name="CARD_PROD_DIR" target="VARIABLE"/>\
3	PIN_FORMAT	UNDER_ZPK
4	EXPORT_TRACK	Y

Fig. 21. Parameters of a subitem of the "Java Pipe" type


The "Java Pipe" form contains the following fields:


- *Pipe Name** – drop-down list for selecting a pipe name
- *Embedded* – this checkbox may only be used by OpenWay specialists
- *Confirm Execution* – when this box is checked, a prompt to confirm pipe execution is displayed before the pipe is started; in case of a negative response, the pipe is not started
- *Ignore Appl Error* – when this box is checked, business logic errors occurring during pipe operation will be ignored.

If the box is not checked and during Java pipe operation business logic errors occurred that were saved in the process log during operation (i.e. the corresponding record in the "Process Log" form has the "Closed" status, and the *Error Level* field contains the "Error" value), the menu item specified in the *Execute Menu Item on Error* field of the "Subitems" form will be started (see the figure Fig. 14 of the section "Editing Menu Subitems").

 Note that it is recommended this checkbox only be used when working with Scheduler (see the document "Scheduler R2").

- *Handle errors as application error* – when this flag is set, system errors (for example SQL errors) will be interpreted by WAY4 as business logic errors occurring during pipe operation. When this flag is set, the operation mode specified with the *Ignore Appl Error* flag will be used for system errors; if a system error occurs, operation of the menu item will not be terminated.


 Note that it is only recommended to use this flag when working with Scheduler (see the document "Scheduler R2").

- *Parallel Mode* – when this box is checked, parallel mode is turned on, and several pipe instances can be started simultaneously. The mode is only used for pipes that import data from files to increase performance when a large number of similar operations is performed
- *Base Directory* – directory from which files are imported; to select a directory, click the  button. The field is only available when the *Parallel Mode* box is checked.
- *File Mask* – regular expression (mask) for file names; characters "*" (any number of characters) and "?" (any character) can be used in masks. The field is only available when the *Parallel Mode* box is checked.
- *Max Pipes* – maximum number of pipe instances executed simultaneously. The field is only available when the *Parallel Mode* box is checked.

The "Additional Parameters for <...>" form (see Fig. 21), used to specify pipe parameters, contains the following fields:

- *Name* – pipe parameter name
- *Value* – parameter value

To add a parameter, click the  **Add Parameter** button; to delete a parameter, click the  **Delete Parameter** button.

 Note that each pipe has a unique set of parameters and their values. For details on pipe parameters, see the corresponding documents from OpenWay's documentation series.

Type "Oracle Report"

Executing a subitem of this type starts Oracle Report Generator, which generates a report using the specified Oracle Report Definition file (see section "Report Generation Principles" in the WAY4 Manager Administrator Manual). Main parameters of a subitem are shown in the "Oracle Report" tab (see Fig. 22).

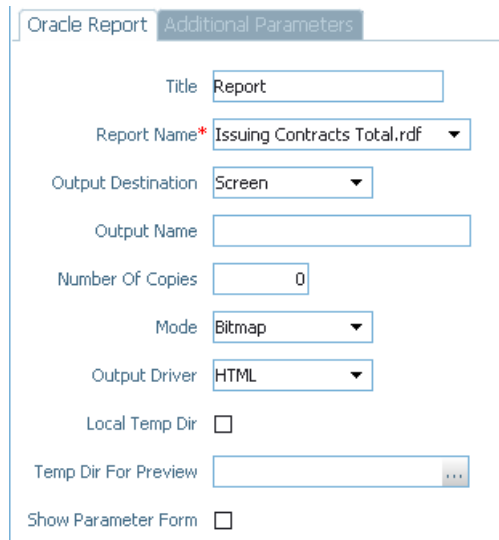



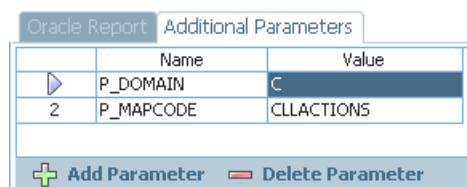
Fig. 22. Parameters of a subitem of the "Oracle Report" type

This tab contains the following fields:

- *Title* – report title that will be shown on each page of the report
- *Report Name** – drop-down list of report templates
- *Output Destination* – drop-down list for specifying the type of the device to which the report will be sent:
 - "Preview" – to the computer screen
 - "File" – to a file. It is necessary to specify the name of the file and its path in the *Output Name* field in the following format: "<parameter name='STMT_DIR' target='VARIABLE'/>\<file name>", where STMT_DIR is the name of an environment variable specifying the directory in which the file will be saved; STMT_DIR can be specified in the "db.ini" file or in the system menu by selecting "Database => Configure".
 - "Printer" – to the printer
 - "Mail" – by e-mail; in this case, MAPI (Messaging Application Programming Interface) support must be installed on the computer, and the e-mail address of the report recipient must be specified in the *Output Name* field
- *Output Name* – name of the device to which the report will be sent (file name, e-mail address, printer name, etc.)
- *Number Of Copies* – number of generated copies

- *Mode* – drop-down list for selecting the format of data presented in the report:
 - "Bitmap" – text and graphics
 - "Character" – text only
- *Output Driver* – drop-down list for determining the report file format:
 - "DFLT" – printer description file used by the Oracle Reports executive; it is also possible to manually enter names of other Oracle printer description files, e.g. "wide" or "wide180"
 - "PDF" – Portable Document Format files
 - "HTML" – Hypertext Markup Language files
 - "Spreadsheet" – Microsoft Excel files (*.xls); only used for Oracle Report 10G and later
 - "XML" – Extensible Markup Language files
- *Local Temp Dir* – when this box is checked, a temporary report file will be created in the temporary file directory of the operating system. When the box is not checked, a temporary report file will be created in the directory specified in the Temp Dir For Preview field; if the field is left blank, a file will be created in the standard temporary file directory
- *Temp Dir For Preview* – directory for temporary report files; to select a directory, click the  button
- *Show Parameter Form* – when this box is checked, a form for entering report parameters will be displayed before the report is generated; otherwise, the form will not be displayed

The "Additional Parameters" tab (see Fig. 23) is used to specify additional parameters used during report generation.



	Name	Value
	P_DOMAIN	C
2	P_MAPCODE	CLLACTIONS



 Add Parameter
  Delete Parameter

Fig. 23. Additional report parameters

This tab contains the following fields:

- *Name* – parameter name
- *Value* – parameter value

Buttons  **Add Parameter** and  **Delete Parameter** are used to add and delete parameters, respectively.

Type "EXE File"

Executing a subitem of this type starts an executable MS Windows file on the user's workstation. Subitem parameters are specified in the "EXE File Parameters for <...>" form (see Fig. 24).

Fig. 24. Parameters of a menu subitem of the "EXE File" type

This form contains the following fields:

- *Name** – name and path to the executable file; to select the necessary name in the standard MS Windows window "Open", click the button
- *Parameters* – file execution parameters
- *Working Directory* – working directory of the executable file
- *Save Message From* – field specifying where to obtain information about the results of program operation:

- "Return Code" – from the program's return code
- "Standard Flow" – from the program's standard flow
- "Error Flow" – from the program's error flow
- "File" – from a file; when this value is specified, the *File Name* field appears in the form. The name of the file should be specified in this field.
- "None" – information about the results of program operation is not required



The *Wait* flag must be set if any value other than "None" is specified in this field.

- *Save To* – a field specifying where information about the results of program operation should be saved:
 - "Local Constant" – to a local constant whose name should be specified in the *With Name* field
 - "Program Context" – to a WAY4 Manager internal constant whose name should be specified in the *With Name* field



The *Wait* flag must be set if any value is specified in this field.

- *With Name* – name of the local constant or WAY4 Manager internal constant to which information about the results of program operation will be saved
- *Wait* – when this box is checked, next menu subitems will only be executed after the program started by this subitem finishes its operation



In the *Name* and *Parameters* fields, local constants can be used (fields of the LOCAL_CONSTANTS table), "ows_home" (system root directory) and

"ows_work" (system working directory) variables as well as variables specified in the configuration files "<OWS_WORK>\db.ini", "<OWS_HOME>\client\dbm\dbm.ini" and in the form for configuring the local machine's WAY4 Manager parameters (the menu item "Database => Configure..."). In doing so, the following format for calling variables is used:

- "<parameter name=<Name>" target="LOCAL_CONSTANT"/>" – for local constants. For example, when the expression "<parameter name="FI" target="LOCAL_CONSTANT"/>" is specified, the "FI" (financial institution) variable is called.
- "<parameter name=<Name>" target="VARIABLE"/>" – for other variables. For example, when the expression "<parameter name="ows_work" target="VARIABLE"/>" is specified, the variable "ows_work" (system working directory) is called.

Type "Sql"

When a subitem of the "Sql" type is executed, an SQL expression or program file is executed.

Subitem parameters are specified in the "Sql Parameters for <...>" form and depend on the value of the *SQL Source* field, which determines whether an SQL expression will be specified in a file or directly in the subitem.


When the "Text" value is specified in the *SQL Source* field, the "Sql Parameters for <...>" form will contain the fields shown on the figure Fig. 25.

The screenshot shows a dialog box titled "Sql Parameters for Subitem #1". It contains several fields and a checkbox:

- SQL Source:** A dropdown menu with "Text" selected.
- Encoding:** A dropdown menu with "UTF-8" selected.
- File Type:** A dropdown menu with "Custom" selected.
- With Headers:** A checked checkbox.
- Result File:** An empty text field.
- Action:** A dropdown menu with "Execute" selected.
- Execution Timeout:** An empty text field.
- SQL Script:** A text area containing the SQL command: `update v_local_constants set buf=null`.

Fig. 25. Parameters of an SQL expression specified directly in a subitem

This form contains the following fields:

- *File Type* – drop-down list for selecting the format of the file to which a database sample will be placed:
 - "Comma-Separated" – text file with commas as separators
 - "Tab-Separated" – text file with tabulation characters as separators
 - "Custom" – text file with characters specified in the *Separator* field as separators
- *Separator* – character used as a separator between values in a database sample
 -  The *Separator* field is only available when the "Custom" value is selected in the *File Type* field.
- *Encoding* – field to specify the encoding of the file to which a database sample will be placed; the value in this field can be manually entered or selected from the following list:

- "UTF-8" (default value).
- "ANSI".
- *With Headers* – when this box is checked, a file with sampling results will include headings of database table fields
- *Result File* – name of the file to which database sampling results will be placed; if this field is left blank, the results are displayed on the screen. To specify the path to the file local constants can be used (fields of the LOCAL_CONSTANTS table), "ows_home" (system root directory) and "ows_work" (system working directory) variables as well as variables specified in the configuration files "<OWS_WORK>\db.ini", "<OWS_HOME>\client\dbm\dbm.ini" and in the form for configuring the local machine's WAY4 Manager parameters (the menu item "Database => Configure..."). In doing so, the following format for calling variables is used:
 - "<parameter name=<Name> target=LOCAL_CONSTANT type=in substitution_type=bind/>" – for local constants. For example, when the expression "<parameter name=FI target=LOCAL_CONSTANT/>" is specified, the "FI" (financial institution) variable is called.
 - "<parameter name=<Name> target=VARIABLE type=in substitution_type=bind/>" – for other variables. For example, when the expression "<parameter name=ows_work target=VARIABLE/>" is specified, the variable "ows_work" (system working directory) is called.
 - "<parameter name=<Name> target=ROW type=in substitution_type=bind/>" – value of the parameter from the current row of the current form.
- *Action* – drop-down list for specifying an action:
 - "Execute" – execute an SQL expression
 - "Check and interrupt" – this value is used for logical branching of menu items depending on the results of executing a stored procedure or function. The following expression must be specified in the *SQL Script** field:
 - ◆ For a stored procedure – "{call <procedure_name>(1,<parameter name=SQL_SCRIPT_RESULT_VALUE type=out substitution_type=bind target=CONTEXT/>))", where <procedure_name> is the name of the stored procedure
 - ◆ For functions – "{call <parameter name=SQL_SCRIPT_RESULT_VALUE type=out substitution_type=bind target=CONTEXT/>:=<function_name>(1)}", where <function_name> is the name of the function

If a stored procedure or function returns the "Y" value, the next menu subitem will be executed. If the procedure or function returns the "N" value as a result of execution, execution of the menu item will be terminated and the menu item specified in the *Execute Menu Item on Error* field of the "Subitems" form will be started (see the figure Fig. 14 in section "Editing Menu Subitems").



It is recommended to use the "Check and interrupt" value if it is necessary to change the order in which menu subitems will be executed in exception handling; for example, if a contract has the "Not Ready" status when the daily closing procedure is executed.

- *Execution Timeout* – the maximum time for executing an SQL expression; if the SQL expression was not executed by the end of the time interval, execution of the subitem will be terminated and an error message will appear on the screen. The time interval can be specified in one of the following ways:
 - "<number>" – <number> milliseconds
 - "<number>ms" – <number> milliseconds
 - "<number>s" – <number> seconds
 - "<number>m" – <number> minutes
 - "<number>h" – <number> hours




It is recommended to use this parameter when working with the Scheduler (see the "Scheduler R2" document).

- *SQL Script** – SQL expression. Either one SQL query or a PL\SQL block can be specified as an expression (according to PL\SQL syntax).

When the "File" value is specified in the *SQL Source* field, the "Sql Parameters for <...>" form will contain the fields shown on the figure Fig. 26.

Fig. 26. Parameters of an SQL expression specified in a file

When the *Use Absolute Path* box is checked in this form, it is necessary to enter manually or select (by clicking the  button) in the *Absolute SQL File Name* field the absolute path to the file containing the SQL expression. When the *Use Absolute Path* box is not checked, specify in the *Relative SQL File Name* field a path from the <OWS_HOME> directory.

The function of the other fields in the form is the same as the function of the same name fields in the form shown on the [figure](#) Fig. 25.

Type "Process"

Executing a subitem of this type starts a stored database procedure. Subitem parameters are determined in the "Process Parameters for <...>" form (see Fig. 27).

Fig. 27. Parameters of a menu subitem of the "Process" type

This form contains the following fields:

- *Name** – procedure name
- *Confirm Execution* – when this box is checked, a prompt to confirm execution is displayed before a procedure is started; in case of a negative response, the procedure is not started
- *Lock Screen* – when this box is checked, users cannot perform any other actions in the system while the procedure is being executed
- *Cancel on Warning* – when this box is checked, execution of the menu item will be interrupted if messages of the "Warning" type occur during execution of the procedure
- *Only Error Messages* – when this box is checked, only messages about errors that occur during procedure execution will be displayed in the dialogue box
- *Execution Timeout* – the maximum time for executing an SQL expression; if the SQL expression was not executed by the end of the time interval, execution of the subitem will be terminated and an error message will appear on the screen. The time interval can be specified in one of the following ways:
 - "<number>" – <number> milliseconds
 - "<number>ms" – <number> milliseconds
 - "<number>s" – <number> seconds
 - "<number>m" – <number> minutes
 - "<number>h" – <number> hours



It is recommended to use this parameter when working with the Scheduler (see the "Scheduler R2" document).

Type "DB Procedure Cycle"

Executing a subitem of this type starts a stored database procedure for all table rows that meet the conditions described in the subitem. Subitem parameters are determined in the "DB Procedure Cycle Parameters for <...>" form (see Fig. 28).

Db Procedure Cycle Parameters for Daily Value-dated Docs

Title: Daily Value-dated Docs

Table*: ACNT_CONTRACT

Confirm Execution: ☐

Is Unique: ☐

Commit Interval*: 10

Delay*: 0

Procedure: bal.ACNT_OPER_DUE

Condition: pcat in('B', 'M') and amnd_state='A' and acnt_contract_oid is null

Fig. 28. Parameters of a menu subitem of the "DB Procedure Cycle" type

This form contains the following fields:

- *Title* – title of the procedure execution window
- *Table** – name of the database table from which a sample is selected
- *Confirm Execution* – when this box is checked, a prompt to confirm execution is displayed before a stored procedure is started; in case of a negative response, execution of the menu item is terminated
- *Is Unique* – when this box is checked, only one instance of the stored procedure can be executed at the same time (on the same workstation during the same WAY4 Manager session)
- *Commit Interval** – number of records processed during one transaction; the recommended range is from 10 to 1000
- *Delay** – delay in milliseconds after each execution of the COMMIT operator to decrease the database server load
- *Procedure* – name of a stored database procedure
- *Condition* – sampling condition

Type "Sql Cycle"

Executing a subitem of the "Sql Cycle" type starts a specified SQL expression for all table rows that meet a specific condition. Subitem parameters are determined in the "Sql Cycle Parameters for <...>" form (see Fig. 29).

Sql Cycle Parameters for Clear bin by channel

Title: Clear bin by channel

Table*: BIN_TABLE

Confirm Execution: ☐

Is Unique: ☐

Commit Interval*: 1000

Delay*: 0

SQL Script*: update bin_table set bin_status = 'I' where id = ?

Condition: amnd_state = 'A' and data_source in ('V', 'P', 'C')


Fig. 29. Parameters of a menu subitem of the "Sql Cycle" type

This form contains the following fields:

- *Title* – title of the SQL expression execution window
- *Table** – name of the database table from which a sample is selected
- *Confirm Execution* – when this box is checked, a prompt to confirm execution of an SQL expression is displayed before the SQL expression is executed; in case of a negative response, execution of the menu item is terminated
- *Is Unique* – when this box is checked, only one instance of the SQL expression can be executed at the same time (on the same workstation during the same WAY4 Manager session)
- *Commit Interval** – number of records processed during one transaction; the recommended range is from 10 to 1000
- *Delay** – delay in milliseconds after each execution of the COMMIT operator to decrease database server load
- *SQL Script** – SQL expression executed for each record of a database sample. The "?" sign is synonymous to the *ID* field of the database table from which a sample is selected
- *Condition* – sampling condition

Type "Db Row Procedure"

Executing a subitem of this type starts a stored database procedure for the current table row.

 It is recommended that subitems of the "Db Row Procedure" type be only used for menu item definitions started from forms (see section "Form Editor Window. Tab "Actions"" in the WAY4 Manager Form Editor Administrator Manual).

Subitem parameters are determined in the "Db Row Procedure Parameters for <...>" form (see Fig. 30).

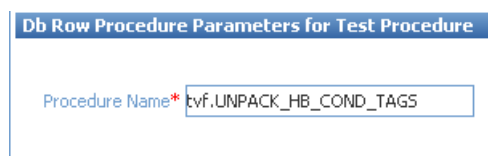



Fig. 30. Parameters of a subitem of the "Db Row Procedure" type

The name of a stored procedure is specified in the *Procedure Name** field of the form.

Type "Java Class"

Executing a subitem of the "Java Class" type starts an external Java application. This type is used, for instance, to export XML data.

 Note that external Java applications may only be started by the system vendor's representatives.

Subitem parameters are determined in the "Java Class Parameters for <...>" form (see Fig. 31).

Fig. 31. Parameters of a menu subitem of the "Java Class" type

This form contains the following fields:





- *Name* – name of a Java application
- *Parameters* – parameters used by the Java application


Type "Message Box"

Executing a subitem of the "Message Box" type displays a message box on the screen. Subitem parameters are specified in the "Message Box Parameters for <...>" form (see Fig. 32).

Fig. 32. Parameters of a menu subitem of the "Message Box" type

This form contains the following fields:

- *Class* – message type:
 - "Message" – dialogue box with a message and the [OK] button
 - "Confirmation" – dialogue box with a question and response buttons. In case of a positive response (clicking the [OK] button), the next subitem is executed; in case of a negative response (clicking the [Cancel] button), execution of the current item is terminated.
 - "Progress" – progress bar window
- *Title* – message window title
- *Text** – message text
- *Can be canceled* – when this box is checked, a progress bar contains the [Cancel] button
 -  This box is only available for messages of the "Progress" type.
- *Type* – drop-down list for selecting an icon shown in the message box:
 - "None" – no icon
 - "Information" – 
 - "Warning" – 
 - "Error" – 

 This field is only available for messages of "Message" and "Confirmation" types.

Type "Voice Authorisation"

Executing a subitem of this type starts the voice authorisation interface for bankcard requests. Subitem parameters are specified in the "Voice Authorisation Parameters for <...>" form (see Fig. 33).

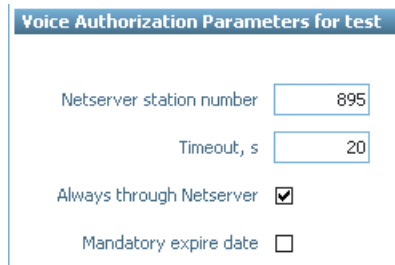


Fig. 33. Parameters of a menu subitem of the "Voice Authorisation" type

This form contains the following fields:

- *Netserver station number* – identifier of the NetServer that will be used by WAY4 Manager to start authorisation of "on-us" and "foreign" cards
- *Timeout, s* – maximum period of waiting for a NetServer response in seconds
- *Always through Netserver* – when this box is checked, requests are always routed to the database through NetServer



It is recommended that this box be checked.

- *Mandatory expire date* – when this box is checked, a bankcard's expiration date must be entered to perform authorisation

Type "Blob Management"

When executing a "Blob Management" type subitem, actions are executed (loading, opening, saving) with BLOB objects (Binary Large Object). This subitem type is used, for example, if files must be saved in the database (documents, images, software code).

Subitem parameters are specified in the "Blob Management Parameters for <...>" form (see Fig. 34).

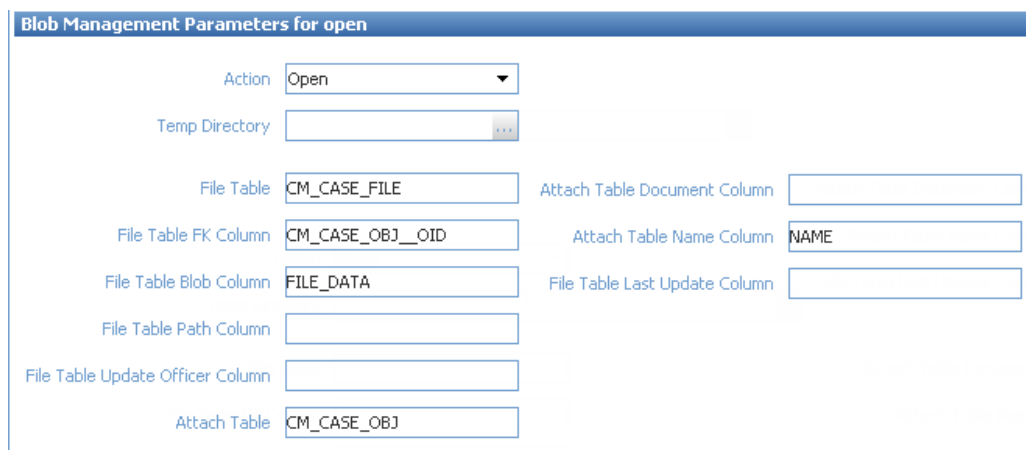


Fig. 34. "Blob Management" type menu subitem parameters

This form contains the following fields"

- *Action* – the action that must be executed with files:
 - "Save" – save a file from the database to the hard drive.
 - "Open" – open a file.
 - "Load" – load a file from the hard drive to the database.
 - "Save All" – save all files to the hard drive.
 - "Save all from Context" – save all files the IDs of which were specified in this item's previous menu subitems.
- *Temp Directory* – directory for saving temporary files created during execution of the "Open" action (open a file).
- *File Table* – name of the table in which the file (Blob object) will be stored.
- *File Table FK Column* – name of the table field (*File Table*) that is the foreign key. According to the value of this field, a link is made with the table in which records about the file are stored (*Attach Table*).
- *File Table Blob Column* – name of the table field (*File Table*) in which the file will be stored. The default value is "FILE_DATA".
- *File Table Path Column* – name of the table field (*File Table*) in which the path to the directory from which the file was loaded into the database will be stored. The default value is "DOCUMENT".
- *File Table Update Officer Column* – the name of the table field (*File Table*) in which information about the user who loaded the file into the database will be stored. The default value is "UPDATE_OFFICER".
- *File Table Last Update Column* – the name of the table field (*File Table*) in which the date and time of the last file update and information about it is stored. The default value is "LAST_UPDATE".
- *Attach Table* – the name of the table in which records about the file will be stored.
- *Attach Table Document Column* – the name of the table field (*Attach Table*) in which the path to the directory from which the file was loaded into the database is stored. The default value is "DOCUMENT".
- *Attach Table Name Column* – the name of the table field (*Attach Table*) in which the name of the record about the file will be stored.

Type "Run Script"

When a "Run Script" type subitem is executed, a JavaScript script is run. This type is used, for example, if a certain screen must be opened.



It is not recommended to use the "Run Script" type subitem without WAY4 vendor representative agreement.

The "Run Script Parameters for <...>" form (see Fig. 35) is used to specify the script.

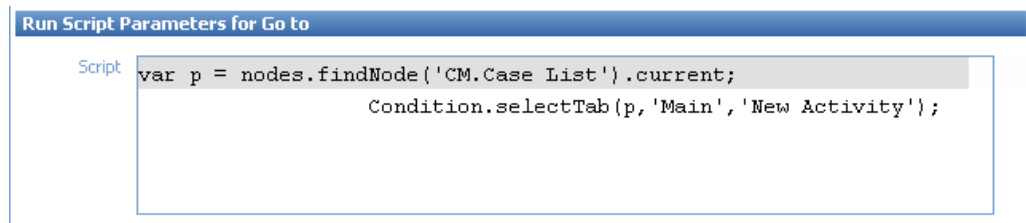


Fig. 35. "Run Script" type menu subitem parameters

A Java Script script is specified in the *Script* field of this form.

Type "Flag"

Executing a subitem of the "Flag" type sets or removes a special parameter (flag). This mechanism is used, for instance, to delimit resource access or to notify users of a specific event. Subitems of this type are used while working with WAY4 Scheduler (see the document "Scheduler R2").

Subitem parameters are determined in the "Flag Parameters for <...>" form (see Fig. 36).

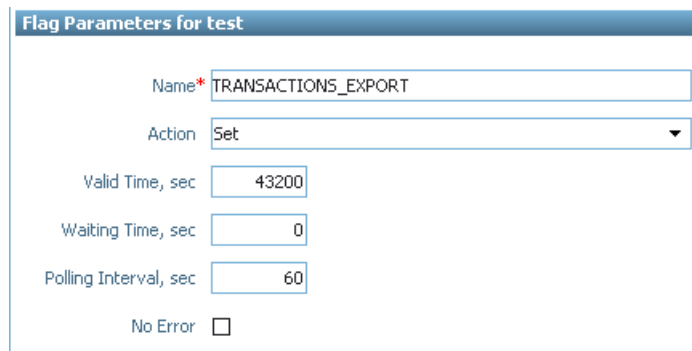



Fig. 36. Parameters of a menu subitem of the "Flag" type

This form contains the following fields:

- *Name** – flag name
- *Action* – action that must be applied to the flag
 - "Set" – set the flag to "Y"
 - "Reset" – reset the flag, i.e. set it to "N"
 - "Wait" – wait until the flag is set to "Y"
 - "Lock" – set the flag to "Y" only if the flag is not set
- *Valid Time, sec* – time period (in seconds) during which flag setting is valid; it is necessary to fill in this field if the *Action* field contains "Set" or "Reset"
- *Waiting Time, sec* – waiting time (in seconds); it is necessary to fill in this field if the *Action* field contains "Wait" or "Lock"
- *Polling Interval, sec* – database polling time interval (in seconds), it is necessary to fill in this field if the *Action* field contains "Wait" or "Lock"
- *No Error* – when this box is checked, the *Action* field contains "Wait" or "Lock" and the flag is not set to "Y" after the waiting time expires, execution of this menu item ends without an error message; otherwise, execution of the menu item is terminated, and the menu item specified in the *Execute Menu Item on Error* field of the "Subitems" form (see the figure Fig. 14 in section "Editing Menu Subitems") is started.

 If a menu item containing a "Flag" subitem is called from another menu item, the *No Error* flag is set, the *Action* field contains "Wait" or "Lock" and the flag is not set to "Y" after the waiting time expires, the next subitem of the menu that called the menu item is executed.

Type "Waiting Files"

When a subitem of the "Waiting Files" type is executed, the system waits until the specified file appears in the specified directories. Subitems of this type are used when working with WAY4 Scheduler (see the document "Scheduler R2").

Subitem parameters are determined in forms "Waiting Files Parameters" and "Directories" (see Fig. 37).

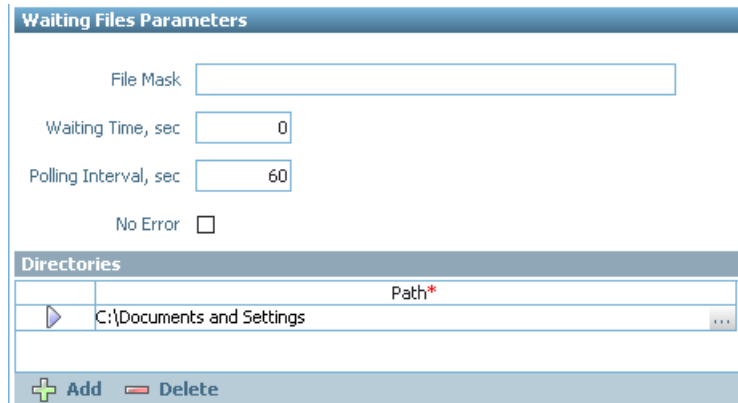






Fig. 37. Parameters of a menu subitem of the "Waiting Files" type

The "Waiting Files Parameters" form contains the following fields:

- *File Mask* – regular expression (mask) for a file name; specified in the Java regular expression format. For example, to wait for a file with any name and extension, specify the ".*" mask, for files with the ".xml" extension – the ".\.xml" mask. All files with the ".txt" extension beginning with the capital letter "A" will comply with the mask "A.*\txt".
- *Waiting Time, sec* – waiting time (in seconds)
- *Polling Interval, sec* – polling interval (in seconds)
- *No Error* – when this box is checked and the file does not appear in the directories by the end of the waiting period, execution of this menu item ends without an error message. When the box is not checked and the file does not appear in the directories by the end of the waiting period, execution of the menu item is terminated, and the menu item specified in the *Execute Menu Item on Error* field of the "Subitems" form (see the figure Fig. 14 in section "Editing Menu Subitems") is started.

 If a menu item containing a "Waiting Files" subitem is called from another menu item, the *No Error* flag is set and the file did not appear in the specified directories by the end of the timeout, the next subitem of the menu that called the menu item is executed.

The "Directories" form is used to specify the path to the directory in which a file must appear. Clicking the  button in the *Path** field opens the standard MS Windows window "Open", where the path to the necessary directory is specified.

Buttons  **Add** and  **Delete** are used to add and delete a path to a directory, respectively.

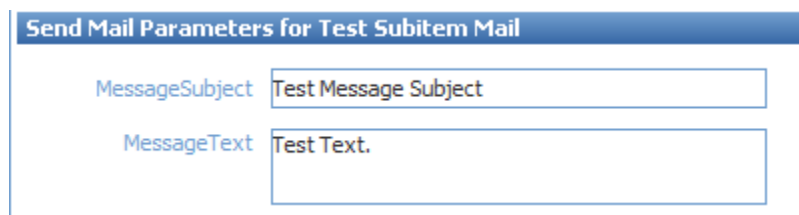
"Send Mail" Type

When the "Send Mail" subitem is executed, a message will be sent by e-mail.

If this subitem is run from the WAY4 Manager application, the recipient's address specified in the *To e-mail address* field of the "Please fill report parameters" form will be used. This form is opened by selecting the system menu item "Help => Send feedback with debug info" (see the section "Help" Item" of the document "Working with WAY4 Manager").

If the subitem is run using Scheduler, the address specified using Scheduler's "mail_address_to" configuration parameter will be used as the recipient's address (see the section "Configuring Scheduler" of the document "Scheduler R2").

The subitem's parameters are specified in the "Send Mail Parameters for <...>" form (see Fig. 38).



Send Mail Parameters for Test Subitem Mail	
MessageSubject	Test Message Subject
MessageText	Test Text.

Fig. 38. "Send Mail" menu subitem parameters

Fill in the message subject in the *Message Subject* field and the message text in the *Message Text* field.

Chapter 3. Importing and Exporting the User Menu

The WAY4 Manager user menu can be modified both directly, i.e. by editing menu folders and items, and after upgrade, i.e. data import from a special format file/files.

Menu upgrade can be performed during total system upgrade (in this case, the standard menu developed by OpenWay is imported) or when developed and debugged menu items are copied from one system to another.

Exporting Menu Folders and Items to a File

Menu folders and items are exported after new menu elements are developed and debugged in one system to move them to another system, e.g. from a test system to a production one.

To export menu elements, click the "ROOT" menu folder in the right-hand section of the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") and proceed in one of the following ways:

- Right-click the mouse and select "Export Menu" from the context menu that opens.
- Click the [Export Menu] button in the "ROOT" form (see Fig. 39).

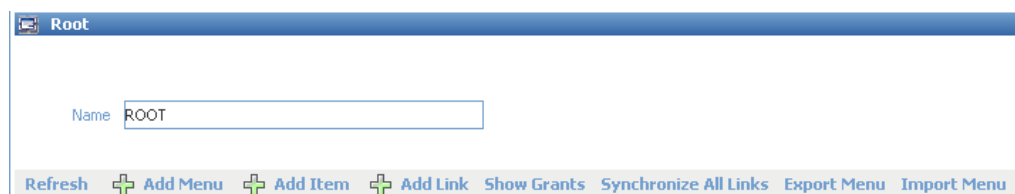


Fig. 39. "ROOT" menu item

As a result, the "Menu Export" window will be displayed (see Fig. 40). It is used to select user menu folders and/or items to be exported.

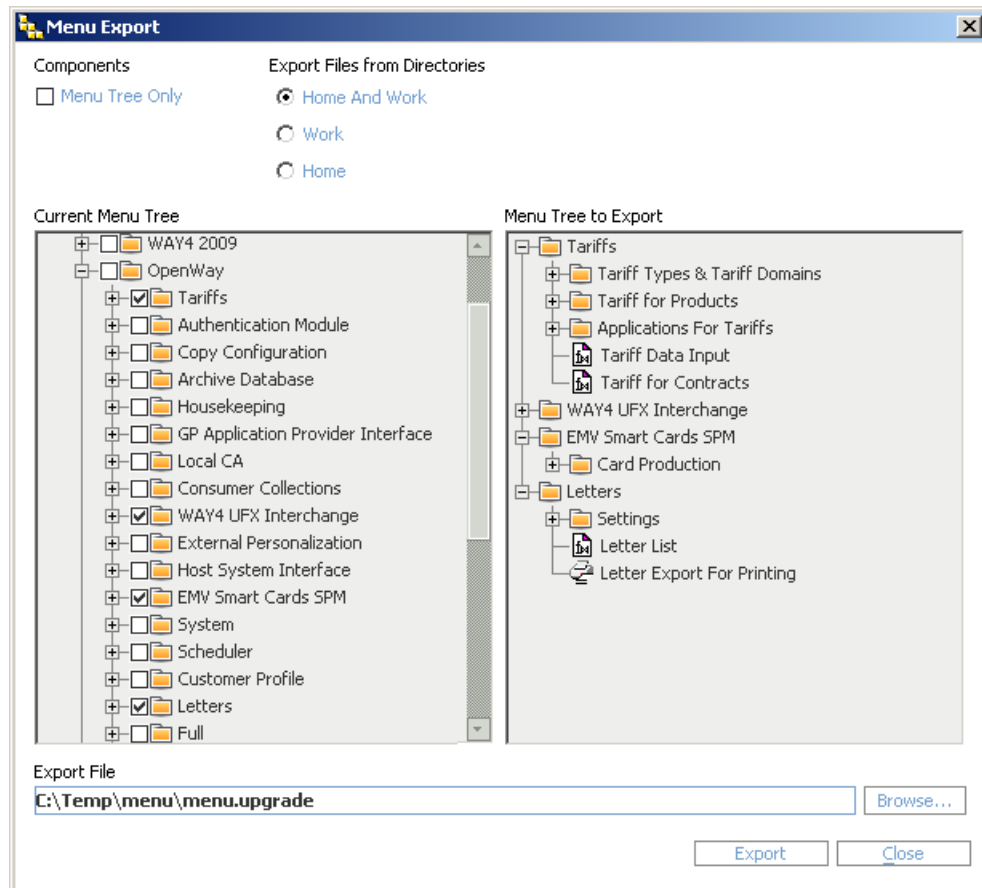



Fig. 40. Dialogue box for selecting menu elements to be exported

The *Current Menu Tree* field contains a list of all menu folders and items (menu tree). To select menu elements to be exported, check the boxes to the left of the necessary elements.

As a result, the menu elements selected for export will appear in the right-hand section of the window in the *Menu Tree to Export* field.

To exclude a menu element from the list of exported element, uncheck it; as a result, the element will be deleted from the *Menu Tree to Export* field.

 To export all elements of the user menu, check the "ROOT" menu folder.

The following parameters of menu element export are determined in the "Menu Export" window:

- *Menu Tree Only* – when this box is checked, only the list of menu folders and items (menu tree) will be exported; menu item definitions and forms will not be exported
- *Export Files from Directories* – group of radio buttons that determine the order of standard WAY4 directories from which files will be taken during export of menu folders and items. For a description of standard file server directories and their access privileges, see section "Classification of WAY4 Users" in the WAY4™ User Management Administrator Manual. The radio buttons have the following meanings:
 - *Home And Work* – the system will search for all necessary files in the <OWS_HOME> directory, if no files to be exported are found, the system will search for files in the <OWS_WORK> directory

- *Work* – the system will search for all necessary files in the <OWS_WORK> directory only
- *Home* – the system will search for all necessary files in the <OWS_HOME> directory.

After selecting menu elements and specifying export parameters, click the [Browse...] button in the *Export File* field to specify the path and the name of the file in which data will be saved. Export files are automatically assigned the ".upgrade" extension.

To export selected menu elements, click [Export]; to cancel export, click [Close].

If export is completed successfully, a window with the "The export file <name of file> has been created" message will be displayed on the screen.

Importing Menu Folders and Items from a File

Users import menu folders and items after receiving menu upgrade files from the WAY4 system vendor or creating them in a test system.

To import menu elements, click the "ROOT" menu folder in the right-hand section of the Menu Editor window (see the figure Fig. 1 in section "Editing the User Menu") and proceed in one of the following ways:

- Right-click the mouse and select "Import Menu" from the context menu that opens.
- Click the [Import Menu] button in the "ROOT" form (see the figure Fig. 39 in section "Exporting Menu Folders and Items to a File").

As a result, the "Menu Import" window (see Fig. 41) will be displayed. It is used to select user menu folders and/or items to be imported.

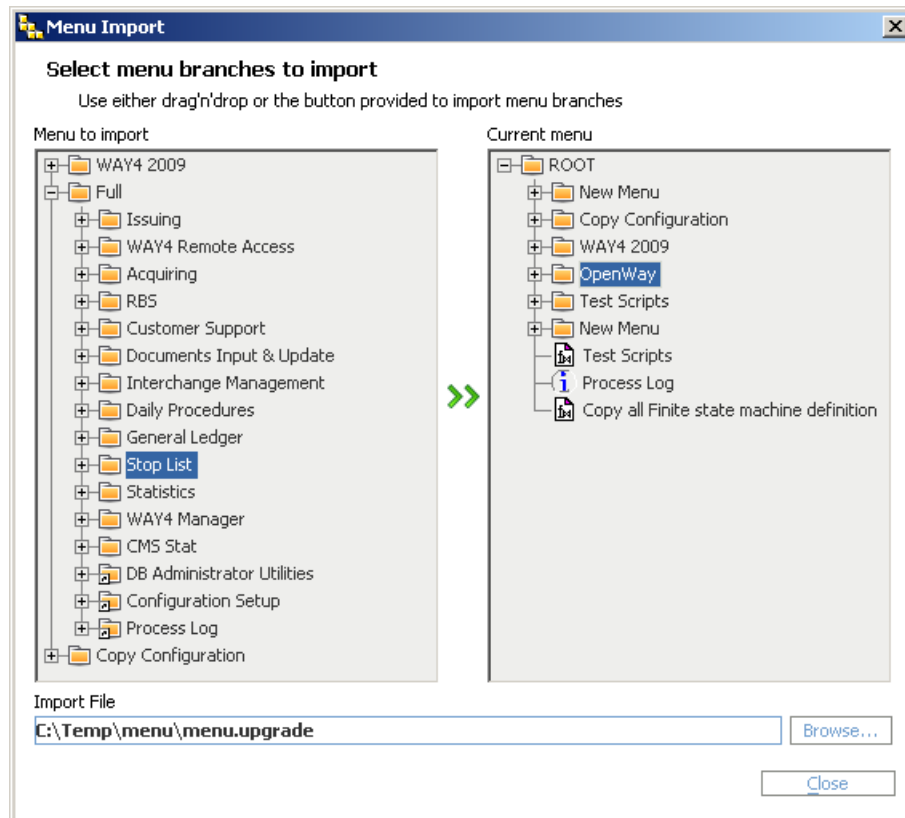


Fig. 41. Dialogue box for selecting menu elements to be imported

In the *Import File* field of the form, click the [Browse...] button and specify the path and the name of the file from which the menu will be imported. Then, the *Menu to import* field will display the menu elements contained in the selected file.

The *Current menu* field contains a list of all menu folders and items installed on the workstation.

To display information about the differences between imported menu folders and menu folders installed on the workstation, proceed as follows:

- Click the menu folders to be compared in fields *Menu to import* and *Current menu*.
- Right-click any of the selected folders and select "Show difference" from the context menu that opens.

As a result, the compared folders and items will be highlighted: folders and items that are the same, in green, folders and items that are only present in imported or installed menu folders, in pink (see Fig. 42).

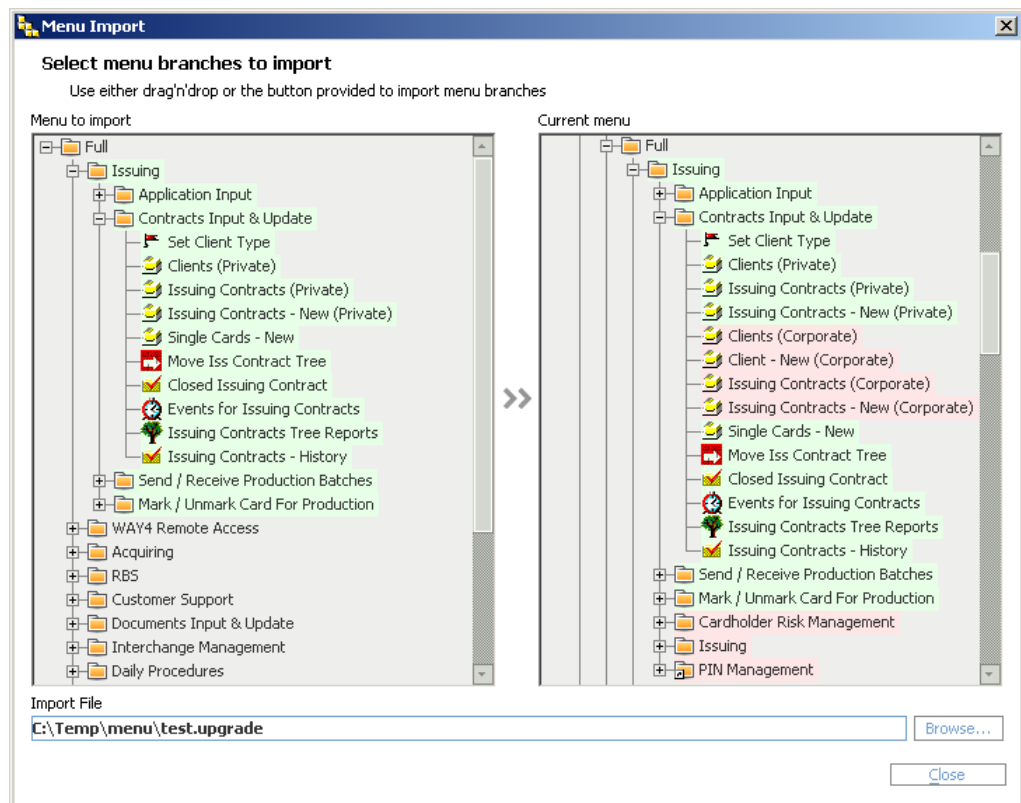


Fig. 42. Differences between imported menu folders and menu folders installed on the workstation

To cancel comparison of menu folders, select "Hide difference" from the context menu.

To import a menu element, proceed in one of the following ways:

- In the *Menu to import* field, click the name of an element to be imported and, while the button is pressed, drag the selected element to the necessary menu folder in the *Current menu* field.
- In the *Menu to import* field, click the name of an element to be imported, in the *Current menu* field, click the necessary menu folder; then, click the **>>** button.

As a result, the "Resources To Import" window (see Fig. 43) will be displayed.

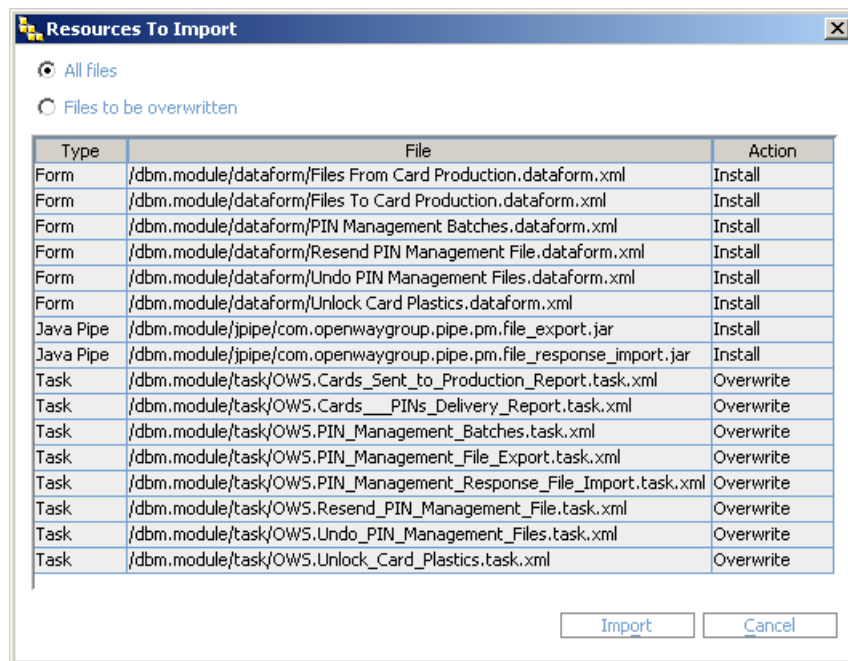



Fig. 43. List of files to be imported

This form contains a table with a list of files that are necessary to execute imported menu items. The list of displayed files depends on which radio button is set in the form:

- *All files* – the list contains all files necessary to execute imported menu items
- *Files to be overwritten* – the list only contains imported files that are already present in the user menu; an imported file may be both different and the same as the corresponding file

The list of files contains the following fields:

- *Type* – file type (form, pipe, or stored database procedure)
 - *File* – file path and name
 - *Action* – drop-down list for selecting an action that must be applied to the file during menu import:
 - "Install" – the file will be imported into the user menu. This value is used by default for imported files that are absent from the user menu.
 - "Overwrite" – the file, which is the same as a file installed on the workstation, will be imported into the user menu. This value is used by default for imported files that are already present in the user menu.
-  Note that in this case the installed file will be replaced by the imported one.
- "Ignore" – the file will not be imported

After specifying user menu element import parameters, click the [Import] button in the "Resources To Import" window to start the import procedure. To cancel import, use the [Cancel] button.