



# Commands window

## OnCommand Workflow Automation 5.1

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# Commands window

The Commands window displays the available commands, in alphabetical order. You can access this window by selecting **Workflow Design > Commands**.



Depending on your role and account privileges, this window might not be displayed.

A command is defined as an action taken as part of a workflow.

- Commands table
- Toolbar

## Commands table

The Commands table lists the available commands.

You can customize the table display by using the filtering and sorting features available for each column, as well as by rearranging the column order.

- enables or disables filtering for the entire table. A red "x" appears over the icon if filtering is disabled.
- Double-clicking clears and resets the filtering selections.
- on each column header enables you to filter based on the content of the columns. Clicking in a column allows you to filter on a specific item from the drop-down list or on all available items.
- Clicking the column header toggles between ascending and descending order of sorting. You can identify the applied sort order by the sort arrows ( for ascending and for descending).
- To rearrange the location of columns, you can drag and drop columns to place them in any required order. However, you cannot hide or delete any of these columns.
- Clicking the **Search** filter text box allows you to search for specific content. In addition, you can search using supported operators for the applicable column type, Alphabetic or Numeric.

The Commands table contains the following columns:

- **Certification**

Indicates whether the command is user-created (), PS (), community (), user-locked (), or NetApp-certified (.

- **Name**

Displays the name of the command.

- **Scheme**

Displays the scheme associated with commands. A scheme represents the data model for a system. For example, a vc scheme contains data relevant to your virtual environment, such as virtual machines, hosts, and datastores.

- **Entity Version**

Displays the version number of the object in `major.minor.revision` format—for example, 1.0.0.

- **Description**

Displays the description of the command.

You can search for commands by entering the description in the **Search** filter text box.

- **OS Compatibility**

Indicates whether the command is compatible with the host operating system.

- **Last Updated On**

Displays the date and time when the command was last updated.

- **Updated By**

Displays the user who updated the command.

- **Locked By**

Displays the user who locked the command.

You can search for commands by entering the user name in the **Search** filter text box.

- **Command Language**

Displays the programming language in which the command is written (Perl or PowerShell).

- **Min. Software Versions**

Specifies the minimum versions of the software that is required to execute the workflow. For example, the software can be clustered Data ONTAP 8.2.0 and vCenter 6.0. The versions are displayed as comma-separated values.

- **Mandatory Parameters**

Displays the parameters selected as mandatory for the command.

## Toolbar

The toolbar is located above the column header. You can use the icons in the toolbar to perform various actions. These actions can also be accessed from the right-click menu in the window.

-  **(New)**


Opens the New Command Definition window, which enables you to create a command.

-  **(Edit)**

Opens the Edit Command Definition window for the selected command, which enables you to edit the command. You can also double-click the command to open the Edit Command Definition window.

-  **(Clone)**

Opens the Edit Command Definition <command\_name> - copy window, which enables you to create a clone or copy of the selected command.

-  **(Lock)**

Opens the Lock Command confirmation dialog box, which enables you to lock the selected command. This option is enabled only for the commands you have created.

-  **(Unlock)**

Opens the Unlock Command confirmation dialog box, which enables you to unlock the selected command. This option is enabled only for the commands locked by you. However, administrators can unlock commands locked by other users.

-  **(Delete)**

Opens the Delete Command confirmation dialog box, which enables you to delete the selected user-created command.



You cannot delete a WFA or PS command.

-  **(Export)**

Enables you to export the selected user-created command.



You cannot export a WFA or PS command.

-  **(Test)**

Opens the Testing Command <CommandName> in <ScriptLanguage> dialog box, which enables you to test the selected command.

-  **(Add To Pack)**

Opens the Add To Pack Command dialog box, which enables you to add the command and its dependable entities to a pack, which is editable.



The Add To Pack feature is enabled only for commands for which the certification is set to **None**.

-  **(Remove From Pack)**

Opens the Remove From Pack Command dialog box for the selected command, which enables you to delete or remove the command from the pack.



The Remove From Pack feature is enabled only for commands for which the certification is set to **None**.

## New Command Definition dialog box

The New Command Definition dialog box enables you to define a new command. You can create new commands for your workflows if the predefined commands do not meet

your requirements.

- Properties tab
- Code tab
- Parameters Definition tab
- Parameters Mapping tab
- Reservation tab
- Verification tab

## Properties tab

Enables you to specify the properties of the command, such as the name, description, and entity version.

- **Name**

Enables you to specify a name for the command. You must specify a name in order to save the command.

- **Entity Version**

Enables you to specify the version number for the command in `major.minor.revision` format—for example, 1.0.0.

- **Description**

Enables you to enter a description for the command.

- **String Representation**

Enables you to specify a string representation for the command using MVFLEX Expression Language (MVEL) syntax.

You must specify the string representation in order to save the command. The string representation is used to display the details of the command in the workflow design during planning and execution. You must use only the parameters of a command in the string representation for that command.

- **Timeout (s)**

Enables you to specify the timeout value (in seconds) for the command. The default value is 600 seconds.

- **Command Type**

Enables you to specify the type of execution for the command.

- **Standard execution**

Enables the command to be executed without any waiting period. Standard execution is selected by default.

- **Wait for condition**

Enables you to specify the time (in seconds) for which the command has to wait before execution. The default value is 60 seconds.

- **Minimum Software Versions**

Specifies the minimum versions of the software that are required for the command to operate. For example, the software can be clustered Data ONTAP 8.2.0 and vCenter 6.0. The versions are displayed as comma-separated values.

## Code tab

Enables you to enter the code for the command in the selected scripting language. You can add a new scripting language by selecting the required language from the Script language drop-down list.

- **Discover Parameters**

Copies the parameters defined in the PowerShell code to the Parameters Definition table and the Parameters Mapping table.

## Parameters Definition tab

Displays the parameters defined in the code that you entered in the Code tab.

- **Name**

Displays the name of the parameter.

- **Description**

Displays the description of the parameter.

- **Mandatory**

Displays a selected check box for the mandatory parameters.

- **Type**

Displays the type of the parameter, such as string, enum, array, or password.

- **Values**

Displays the value that is set for the parameter.

- **Add Parameter**

Enables you to add a parameter to the command if the selected scripting language is Perl.

- **Remove Parameter**

Enables you to remove a parameter from the command if the selected scripting language is Perl.

## Parameters Mapping tab

Enables you to map the parameters to dictionary objects and to specify the attribute and object name.

- **Name**

Displays the name of the parameter.

- **Type**

Enables you to select a dictionary object for the parameter.

- **Attribute**

Enables you to specify the required attribute. You can either select the attribute (if available), or enter the attribute.

- **Object Name**

Enables you to specify a name for the dictionary object.

## Reservation tab

Enables you to reserve the resources that are required by the command.

- **Reservation Script**

Enables you to enter an SQL query to reserve the resources that are required by the command. This helps ensure that the resources are available during a scheduled workflow execution.

- **Reservation Representation**

Enables you to specify a string representation for the reservation using MVEL syntax. The string representation is used to display the details of the reservation in the Reservations window.

## Verification tab

Enables you to verify a reservation and remove the reservation after the command is executed.

- **Verification Script**

Enables you to enter an SQL query to verify the usage of the resources that were reserved by the reservation script. The verification script also verifies whether the WFA cache is updated, and removes the reservation after a cache acquisition.

- **Test Verification**

Opens the Verification dialog box, which enables you to test the parameters of the verification script.

## Command buttons

- **Test**

Opens the Testing Command <CommandName> in <ScriptLanguage> dialog box, which enables you to test the command.

- **Save**

Saves the command and closes the dialog box.



- **Cancel**

Cancels changes, if any, and closes the dialog box.

## Edit Command Definition dialog box

The **Edit Command Definition** dialog box enables you to edit the selected command.

- Properties tab
- Code tab
- Parameters Definition tab
- Parameters Mapping tab
- Reservation tab
- Verification tab

### Properties tab

The Properties tab enables you to edit the properties of the command, such as the name, description, and scripting language.

- **Name**

Enables you to edit the name of the command. You must enter a name to save the command.

- **Entity Version**

Enables you to enter the version number for the command in `major.minor.revision` format—for example, 1.0.0.

- **Description**

Enables you to edit the description for the command.

- **String Representation**

Enables you to specify a string representation for the command using MVEL syntax. You must specify the string representation to save the command.

- **Timeout (s)**

Enables you to specify the timeout value (in seconds) for the command. The default value is 600 seconds.

- **Command Type**

Enables you to specify the type of execution for the command.

- **Standard execution**

Enables the command to be executed without any waiting period. Standard execution is selected by default.


- **Wait for condition**

Enables you to specify the time (in seconds) for the command to wait before execution. The default value is 60 seconds.

- **Minimum Software Versions**

Specifies the minimum versions of the software that is required for the command to operate. For example, the software can be clustered Data ONTAP 8.2.0 and vCenter 6.0. The versions are displayed as comma-separated values.

## Code tab

This tab enables you to edit the code for the command in Perl, PowerShell, or both. You can add a new scripting language by clicking  and then selecting the required language from the Script language drop-down list.

- **Test**

Opens the Verification dialog box, which enables you to test the parameters for the specified verification script.

- **Discover Parameters**

Copies the parameters defined in the PowerShell code to the Parameters Definition table and the Parameters Mapping table. The Discover Parameters button is disabled for the Perl codes.

## Parameters Definition tab

This tab displays the parameters defined in the code that you have entered in the Code tab.

- **Name**

Displays the name of the parameter.

- **Description**

Displays the description of the parameter.

- **Mandatory**

Displays a selected check box for the mandatory parameters.

- **Type**

Displays the type of the parameter, such as string and enum.

- **Values**

Displays the value that is set for the parameter.

- **Add Parameter**

Enables you to add a parameter to the command if the selected scripting language is Perl.

- **Remove Parameter**

Enables you to remove a parameter from the command if the selected scripting language is Perl.

## Parameters Mapping tab

This tab enables you to map the parameters to dictionary objects and to specify the attribute and object name.

- **Name**

Displays the name of the parameter.

- **Type**

Enables you to select the dictionary object for the parameter.

- **Attribute**

Enables you to specify the required attribute. You can select the attribute, if available, or enter the attribute.

- **Object Name**

Enables you to enter a name for the object.

## Reservation tab

This tab enables you to reserve resources that are required by the command. For more information about reservations, see the *OnCommand Workflow Automation Workflow Developer's Guide*.

- **Reservation Script**

Enables you to enter an SQL query to reserve resources required by the command. This ensures that the resources are available during a scheduled workflow execution.

- **Reservation Representation**

Enables you to specify a string representation for the reservation using MVEL syntax. The string representation is used to display the details of the reservation in the Reservations window.

## Verification tab

This tab enables you to verify a reservation and remove the reservation after the execution of the command is completed. For more information about verifying reservations, see the *OnCommand Workflow Automation Workflow Developer's Guide*.

- **Verification Script**

Enables you to enter an SQL query to verify the usage of resources that were reserved by the reservation script. It also verifies if the WFA cache is updated and removes the reservation after a cache acquisition.

## Command buttons

- **Save**

Saves the changes and closes the dialog box.

- **Cancel**

Cancels changes, if any, and closes the dialog box.

## Clone Command Definition dialog box

The Clone Command Definition dialog box enables you to copy a command and edit the cloned command.

- Properties tab
- Code tab
- Parameters Definition tab
- Parameters Mapping tab
- Reservation tab
- Verification tab

### Properties tab

Enables you to edit the properties of the cloned command, such as the name, description, and entity version.

- **Name**

Enables you to edit the name of the cloned command. By default, the name of the command that you have selected to clone is used as the name for the clone, appended with “- copy”.

- **Entity Version**

Enables you to edit the version number of the command in `major.minor.revision` format—for example, 1.0.0.

- **Description**

Enables you to edit the description of the command.

- **String Representation**

Enables you to specify a string representation for the command using MVFLEX Expression Language (MVEL) syntax. You must specify the string representation in order to save the command.

- **Timeout (s)**

Enables you to specify the timeout value (in seconds) for the command. The default value is 600 seconds.

- **Command Type**

Enables you to specify the type of execution for the command.

- **Standard execution**

Enables the command to be executed without any waiting period. Standard execution is selected by default.

- **Wait for condition**

Enables you to specify the time (in seconds) for which the command has to wait before execution. The default value is 60 seconds.

- **Minimum Software Versions**

Specifies the minimum versions of the software that are required for the command to operate. For example, the software can be clustered Data ONTAP 8.2.0 and vCenter 6.0. The versions are displayed as comma-separated values.

- **Retain reservation and verification scripts from original command**

Enables you to retain the reservation and verification scripts that were originally specified for the command that you want to clone.

## Code tab

Enables you to edit the code for the command.

- **Discover Parameters**

Copies the parameters defined in the PowerShell code to the Parameters Definition table and the Parameters Mapping table.

## Parameters Definition tab

Displays the parameters defined in the code that you entered in the Code tab.

- **Name**

Displays the name of the parameter.

- **Description**

Displays the description of the parameter.

- **Mandatory**

Displays a selected check box for the mandatory parameters.

- **Type**

Displays the type of the parameter, such as string or enum.

- **Values**

Displays the values that are set for the parameter.

- **Add Parameter**

Enables you to add a parameter to the command if the selected scripting language is Perl.

- **Remove Parameter**

Enables you to remove a parameter from the command if the selected scripting language is Perl.

## **Parameters Mapping tab**

Enables you to map the parameters to dictionary objects and to specify the attribute and object name.

- **Name**

Displays the name of the parameter.

- **Type**

Enables you to select a dictionary object for the parameter.

- **Attribute**

Enables you to specify the required attribute. You can either select the attribute (if available), or enter the name of the attribute.

- **Object Name**

Enables you to specify a name for the dictionary object.

## **Reservation tab**

Enables you to reserve the resources that are required by the command.

- **Reservation Script**

Enables you to enter an SQL query to reserve the resources that are required by the command. This helps ensure that the required resources are available during a scheduled workflow execution.

- **Reservation Representation**

Enables you to specify a string representation for the reservation using MVEL syntax. The string representation is used to display the details of the reservation in the Reservations window.

## **Verification tab**

Enables you to verify a reservation and remove the reservation after the command is executed.

- **Verification Script**

Enables you to enter an SQL query to verify the usage of the resources that were reserved by the reservation script. The verification script also verifies whether the WFA cache is updated, and removes the reservation after a cache acquisition.

- **Test Verification**

Opens the Verification dialog box, which enables you to test the parameters of the verification script.

## **Command buttons**

- **Test**

Opens the Testing Command <CommandName> in <ScriptLanguage> dialog box, which enables you to test the command.

- **Save**

Saves the command and closes the dialog box.

- **Cancel**

Cancels changes, if any, and closes the dialog box.

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