



Workflows window

OnCommand Workflow Automation 5.1

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Workflows window







The Workflows window displays all of the available workflows, in alphabetical order. You can access this window by selecting **Workflow Design > Workflows**.

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

- Workflows table
- Toolbar

Workflows table

The Workflows table lists the available workflows. 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 Workflows table contains the following columns:

- **Certification**

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

You can search for workflows by selecting the required option check boxes from the filter list.

- **Name**

Displays the name of the workflow.

You can search for a workflow by entering its name in the **Search** filter text box.

- **Scheme**

Displays the schemes associated with workflows. 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.

You can search for a workflow by entering one of its schemes in the **Search** filter text box.

- **Entity Version**

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

You can search for a workflow by entering the version number in the **Search** filter text box.

- **Description**

Displays the description of the workflow.

You can search for a workflow by entering its description in the **Search** filter text box.

- **OS Compatibility**

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

- **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.

- **Categories**

Displays the user-defined labels associated with workflows.

You can use the categories to organize collections of workflows. For example, to help distinguish workflows, there might be a separate category for provisioning tasks, a category for maintenance tasks, and a category for decommissioning tasks. In addition, categories are used to restrict workflow execution for specific operators.

You can search for workflows by entering a category in the **Search** filter text box.

- **Last Updated On**

Displays the date and time that the workflow was last updated.

You can search for workflows by selecting the required time category from the filter drop-down list.

- **Updated By**

Displays the name of the user who updated the workflow.

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

- **Locked By**

Displays the name of the user who locked the workflow.

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

- **Ready for production**

Identifies whether the workflow is marked ready for production (true or false).

You can search for workflows by selecting the required production option check box from the filter list.

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 Workflow window, which enables you to enter the details for the new workflow.

-  **(Edit)**

Opens the workflow editor for the selected workflow, which enables you to edit the workflow. You can also double-click the workflow to open the workflow editor.

-  **(Clone)**

Opens the New Workflow <selected_workflow_name> - copy window, which enables you to create a clone or a copy of the selected workflow.

-  **(Lock)**

Opens the Lock Workflow confirmation dialog box, which enables you to lock the selected workflow. This option is enabled only for the workflows that you have created.

-  **(Unlock)**

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

-  **(Delete)**

Opens the Delete Workflow confirmation dialog box, which enables you to delete the selected workflow. This option is enabled only for the workflows that you have created.

-  **(Export)**

Opens the File Download dialog box, which enables you to save the selected workflow as a .dar file. This option is enabled only for the workflows that you have created.

-  **(Execute)**

Opens the Execute Workflow <selected_workflow_name> dialog box for the selected workflow, which enables you to execute the workflow.

-  **(Add To Pack)**

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



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

-  **(Remove From Pack)**

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



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

New Workflow window

The **New Workflow** window displays a newly created workflow and its associated commands.

New Workflow

The **New Workflow** window displays the name of the workflow in the header of the window. The associated commands are displayed as blue boxes in columns that are presented in the sequential order of execution—read left to right, top to bottom. The variables and objects for each command are displayed as gray boxes in the column of the command.

- **Insert a row**

Adds a new row above or below the selected row in the workflow.

You can click  to add a row below the last available row.

- **Copy row**

Copies the selected row from the workflow and saves it to the clipboard. Copying a row does not copy the repetition details set for the row.

- **Paste row**

Places the last item saved to the clipboard in a new row below the selected row. Unique names are used for variables; however, variables in expressions are not changed.

- **Repeat row**

Opens the **Row Repetition Details** dialog box.

- **Edit row repetition**

Opens the **Row Repetition Details** dialog box, which enables you to modify the **Repeat Row** action set for the selected row.

- **Remove row repetition**

Cancels the **Repeat Row** action set in the **Row Repetition Details** dialog box for the selected row.


- **Add condition**

Opens the Conditions for row <row number> dialog box, which enables you to select a condition. The selected condition is applicable to all the commands in the row. All commands in the row will be executed only if the selected condition is met.


- **Remove row**

Deletes the selected row from the workflow.

- **New Approval Point**


You can click  to open the **New Approval Point** dialog box, which enables you to add an approval point before the execution of the command.

- **Edit Approval Point**

You can click  to open the **Edit Approval Point** dialog box, which enables you to edit the approval point comment.

- **Add Command Parameters**

Adds parameters for a command in the selected row.

You can place your cursor below the selected command, at the required row, and click  to open the Parameters for <command_name> dialog box.

- **Edit Command Parameters**

Opens the Parameters for <command_name> dialog box to enable you to modify the selected parameters for a command.

You can place your cursor over the gray box that you want to edit and click to open the Parameters for <command_name> dialog box.

- **Delete Command Parameters**

Removes the parameter.

You can move the cursor over the gray box that you want to delete and click the “X” on the upper-right corner of the gray box.

Command buttons

The command buttons are available at the bottom of the workflow window. The commands can also be accessed from the right-click menu in the window.

- **Preview**

Opens the **Preview Workflow** dialog box, which enables you to specify user input attributes.

- **Save As**

Enables you to save the workflow with a new name.

- **Save**

Saves the workflow.

- **Close**

Closes the window. In the process, if any changes were made to the configuration, a **Save Changes confirmation** dialog box is opened, prompting you to either save the changes, close the window without saving changes, or cancel the closing action.

Parameters for commands dialog box

You can specify parameters and other settings for the execution of commands through the Parameters for commands dialog box.

The dialog box displays one or more dictionary object tabs and the following tabs:


- Other parameters
- Advanced

<Dictionary objects> tabs

- **Define <dictionary object>**

Enables you to specify the command parameters that are mapped to the dictionary object by specifying attributes, using a previously defined object, or searching for an existing object.

- **by filling-in attributes**

Enables you to enter attributes for this variable. You can use the Resource Selection dialog box for fields marked with . Optionally, you can use a template that includes predefined values for certain attributes of the object. You can view and use additional attributes by clearing the **Show only attributes used by <dictionary object>** check box. The box next to **Define <dictionary object>** displays the default name of the selected variable. You can edit the name of the variable. The mandatory attributes are marked with an asterisk (*) and red border for the box.

- **by using a previously defined <dictionary object>**

Enables you to select a previously defined variable. You can select the previously defined dictionary object in the box next to **Define <dictionary object>**.

- **by searching for an existing <dictionary object>**

Enables you to define a variable by searching for an existing dictionary object. You can specify the search criteria for the dictionary object. You can specify one of the following action if the dictionary object is found:

- Abort workflow
- Disable the command
- Fill-in attributes for the <dictionary object> and execute the command



This option is similar to the **by filling-in attributes** option.

Other Parameters

Enables you to specify the command parameters that are not mapped to any dictionary object for the execution of the command.

Advanced

Enables you to specify conditions for the execution of the command and provide a description. You can also configure the workflow so that the workflow execution continues even if one or more commands in the workflow have failed.

- **Execute this command**

- **Always**

- Executes the command unconditionally.

- **If the following variable was found**

- Enables you to execute a command only when the specified variable is found. You can specify the variable in the adjacent box.

- **If the following variable was not found**

- Enables you to execute a command only when the specified variable is not found. You can specify the variable in the adjacent box.

- **If the following expression is TRUE**

- Enables you to execute a command only when the specified MVFLEX Expression Language (MVEL) expression is “true”. You can specify the expression in the adjacent box.

- **Description**

- Enables you to enter a description for the command.

- **If execution fails**

- **Abort workflow execution**

- Enables you to end the workflow execution.

- **Continue execution from the next step**

- Enables you to continue the workflow execution from the next step.

- **Continue execution from the next row**

- Enables you to continue the workflow execution from the next row.

Resource Selection dialog box

The Resource Selection dialog box enables you to search for resources and map the resources to a command.

- Select <dictionary object> by tab
- Advanced tab

Select <dictionary object> by tab

This tab enables you specify a finder or filters as the search criteria and enter attributes for the selected search criteria. You can also save the selected filters as a finder.

- **Define filter rules**

Enables you to define a set of rules for dictionary entry resources, such as vFiler units, aggregates, and virtual machines.

The filter rules can contain one or more groups of rules.

A rule consists of a dictionary entry attribute, an operator, and a value. The attribute can also include attributes of its references. For example, you can specify a rule for aggregates as follows: List all aggregates with name starting with the string “aggr” and have an available size greater than 5 GB. The first rule in the group is the attribute “name”, with the operator “starts-with”, and the value “aggr”. The second rule for the same group is the attribute “available_size_mb”, with the operator “>” and the value “5000”.

The **Define filter rules** option is disabled if you have selected a finder.

You can clear the values specified by clicking the **Reset** button.

- **Select one resource by its natural keys**

Enables you to select a resource based on the natural keys of the resource.

- **Finder**

Enables you to select a finder from the list. **None** is selected by default.

Filters are displayed below the finder list. You cannot select filters if you have selected a finder.

- **Parameters**

Enables you to enter the values for the selected finder or filters. You must enter all the required values to complete the search criteria.

- **Command buttons**

- **Save As Finder**

Saves the selected filters as a finder.

- **Test**

Enables you to test the parameters for the selected filters before specifying the values in the Parameters area.

- **OK**

Saves the configurations settings and closes the dialog box.

- **Cancel**

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

Advanced tab

This tab enables you to specify when the search should be performed and allows you to sort the resource attributes and the status of the resource attributes.

- **Execute this search always**

Executes the search without any restriction when the command is executed.

- **Execute search only when the following expression evaluates to TRUE**

Executes the search only when the value of the optional attribute specified in the box is “true”. You can use MVFLEX Expression Language (MVFL) syntax to specify the optional attribute.

- **Sorting table**

Displays the attributes and the sort order for the filters selected in the **Select <dictionary object> by** tab. The sort order is significant for resource selection—for example, if you selected descending as the sort order for aggregates, the aggregate with maximum `available_space` is selected as the resource. To change the sort order for an attribute, you can click the status column of the attribute and select the required sort order from the list.

- **Command buttons**

- **Up**

Moves the selected entry up one row in the Sorting table.

- **Down**

Moves the selected entry down one row in the Sorting table.

Incremental Naming Wizard

The Incremental Naming Wizard enables you to define the value of an attribute based on a search for an existing parameter.

- **Search criteria for existing <dictionary object>**

Opens the **Resource Selection** dialog box, which enables you to specify search criteria for the dictionary object.

- **Enter a value for <attribute> if no <dictionary object> matches the above search criteria**

Enables you to specify a value for the <attribute> when the <dictionary object> is not found using the specified search criteria.

- **If <dictionary object> was found using above search criteria, set value for <attribute> by**

Enables you to specify a value for the <attribute> when the <dictionary object> is not found using the specified search criteria.

- **Enter a value for <attribute> if no <dictionary object> matches the above search criteria**

Enables you to select a method for setting the value for the <attribute> if the <dictionary object> is found

using the specified search criteria.

- **providing an increment value and suffix**

Enables you to enter a numeric value for the increments and optionally enter a suffix of the attribute name.

- **providing a custom expression**

Enables you to enter a custom expression for the value of the attribute. You can use MVFLEX Expression Language (MVEL) syntax to specify the value.

Row Repetition Details dialog box

The Row Repetition Details dialog box enables you to specify how the parameters in the row should be repeated.

Repeats

Enables you to select the required type of repeat option. The **Number of times** option is selected by default.

- **Number of times**

Enables you to specify the following:

- The number of times the specific row should be executed
- Index Variable
- Variables
- **Number of Times**

Enables you to specify a numeral for the number of times the specific row should be executed.

- **Index Variable**

Enables you to specify the name of the index variable for row repetition.

- **Variables**

Enables you to include additional variables that have to be used during row repetition.

- **Add**

Adds a new row in the variables table.

- **Remove**

Removes the selected row from the variables table.

- **For every resource in a group**

Enables you to specify the following:

- Resource Type

- Resource Search Criteria
- Resource Variable
- Index Variable
- Group Size Variable
- Variables
- **Resource Type**

Enables you to select the resource type.

- **Resource Search Criteria**

Opens the Resource Selection dialog box, which enables you to specify the criteria for searching resources of the selected resource type. The loop is executed for each searched resource based on the specified criteria.

- **Resource Variable**

Enables you to enter a name for the resource variable.

- **Index Variable**

Enables you to specify the index for row repetition.

- **Group Size Variable**

Enables you to enter a name for the group size variable.

- **Variables**

Enables you to include additional variables that have to be used during row repetition.

- **Command buttons**

- **OK**

Saves the settings and closes the dialog box.

- **Cancel**

Does not save any changes, if any, and closes the dialog box.

Workflow <workflow name> window

The Workflow <workflow name> window displays the selected workflow and its associated commands and parameters. The commands associated with the workflow are displayed as blue boxes in columns that are arranged in the sequential order of execution—left to right. The variables and objects for each command are displayed as gray boxes below the command.

Workflow tab

The Workflow tab enables you to select and use child workflows and commands, and customize the display name.

- **Available Steps**

Provides a list of available child workflows and commands that you can add to your workflow.

You can search for child workflows or commands by using the name, scheme, and minimum software version as search strings in the text box.

You can customize the workflow display by rearranging the order of the commands. To rearrange the commands, you can drag and drop commands in the required order. Double-clicking a command moves that command to the end of the list. You can modify the display name by double-clicking the display name of the command in the blue box. You can delete a command by moving the cursor over the blue box, and then clicking "X" on the upper-right corner.

You can click the row number to perform various functions on the row.

- **Insert a row**

Inserts a new row above or below the selected row in the workflow.

- **Copy row**

Copies the selected row from the workflow and saves it to the clipboard. The repetition details set for the row is copied when a row is copied.

- **Repeat row**

Opens the Row Repetition Details dialog box, which enables you to specify the type of repetition.

- **Add condition**

Opens the Condition for row <row number> dialog box, which enables you to select a condition. The selected condition is applicable to all the commands in the row. All commands in the row will be executed only if the selected condition is met.

- **Remove row**

Deletes the selected row from the workflow.

- **Paste Row**

Pastes the copied row above or below the selected row. This option is available after selecting the Copy row function.

Details tab

The Details tab enables you to provide general information about the workflow.

- **Workflow name**

Enables you to specify the name of the workflow using an alphanumeric string.

- **Entity Version**

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

- **Categories**

Displays the associated category for the workflow. You can assign a workflow to a category from the Category window.

- **Workflow Description**

Enables you to enter a description of the workflow. You can click in the field to open the Edit Description dialog box.

- **Ready for production**

Enables you to mark the workflow ready for production, which allows the workflow to be executed and listed in the Workflows window.

- **Consider Reserved Elements**

Enables you to use the reservation feature for the workflow, when selected resources are available for the workflow until the reservation expiration period you have configured. The reservation feature enables you to exclude resources reserved by other workflows during resource selection.



You must not select this check box if you require the filters to search only the contents of the persistent cache without considering reservations set by other workflows.

- **Enable element existence validation**

Enables you to validate the existence of elements and avoid failure of certain actions during the execution of workflows. For example, you can avoid creating a new volume in an array with the same name as that of an existing volume.

- **Minimum 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.

User Inputs tab

The User Inputs tab enables you to view and edit the user input attributes that you created when you defined the workflow objects and created user inputs. The values for the user input attributes are filled when you preview or execute the workflow.

You can double-click the user input that you want to edit, which opens the Edit Variable: <user_input> dialog box, enabling you to edit the user input.

You can customize the table display by rearranging the column order. To rearrange the columns, you can drag and drop columns in the required order. However, you cannot hide or delete any of these columns.

- **Name**

Displays the name of the user input attribute.

- **Display Name**

Displays the name that is displayed to the workflow user.

- **Type**

Displays the user input type, such as string, query, boolean, table, or password.

- **Values**

Displays the allowed values for the user input—for example, range for numbers and regular expression for strings.

- **Default Value**

Displays the default value of the user input.

- **Input Dependency**

Displays another user input from the list that provides a value to the selected user input.

- **Group**

Displays the name of the group for the user input attributes.

- **Mandatory**

Displays the status of the user input. If the check box is displayed as selected, the user input attributes are mandatory for the execution of the workflow.

- **Command buttons**

- **Up**

- Moves the selected entry up one row in the table.

- **Down**

- Moves the selected entry down one row in the table.

Constants tab

The Constants tab enables you to define the value of the constants that can be used multiple times in the workflow. You can specify the following as the value of constants:

- Numbers
- Strings
- MVEL expressions
- Functions
- User inputs
- Variables

You can customize the table display by sorting each column, as well as by rearranging the column order.

- **Name**

Displays the name of the constant.

- **Description**

Enables you to specify a description for the constant.

- **Value**

Enables you to specify a value for the constant.

- **Command buttons**

- **Add**

Adds a new row in the Constants table.

- **Remove**

Deletes the selected row from the Constants table.

You can also right-click the constants to use the copy and paste functionality.

Return Parameters tab

The Return Parameters tab enables you to define and provide a description of the return parameters for the workflow that can be viewed from the Monitoring window or from web services.

- **Parameter Value**

Enables you to specify the parameter value.

- **Parameter Name**

Enables you to specify the parameter name.

- **Description**

Enables you to specify a description for the selected parameter.

- **Command buttons**

- **Add Row**

Adds a new row in the Return Parameters table.

- **Remove Row**

Deletes the selected row from the Return Parameters table.

Help Content tab

The Help Content tab enables you to add, view, and remove the Help content for the workflow. The workflow Help content provides information about the workflow for storage operators.

Advanced tab

The Advanced tab enables you to configure a custom URI path for workflow execution through API calls. Each segment in the URI path can be a string or a valid name of the user input of the workflow in brackets.

For example, /devops/{ProjectName}/clone. The workflow can be invoked as a call to *https://WFA-Server:HTTPS_PORT/rest/devops/Project1/clone/jobs*.

Command buttons

The command buttons are available at the bottom of the workflow window. The commands can also be accessed from the right-click menu in the window.

- **Preview**

Opens the Preview Workflow dialog box, which enables you to specify user input attributes.

- **Save As**

Enables you to save the workflow with a new name.

- **Save**

Saves the configurations settings.

Execute Workflow dialog box

The Execute Workflow dialog box enables you to specify the required user inputs, time for execution, and execution comment for a workflow.

User Inputs

Enables you to specify the inputs for the workflow. The mandatory attributes are marked with an asterisk (*) and the border for the boxes are in red.

Options

Enables you to specify the time for the workflow execution.

- **Execute now**

Enables you to execute the workflow immediately.

- **Execute recurrently**

Enables you to set the workflow to recur periodically. This option is displayed only when a schedule has been created.

- **Execute once**

Enables you to schedule the execution of the workflow.

Execution Comment

Enables you to specify a comment for the workflow execution. This comment is displayed in the Execution Status window.

Edit Variable dialog box

The Edit Variable: <UserInputName> dialog box enables you to edit the user input attributes of a workflow.

Properties

- **Variable Name**

Enables you to edit the name of the user input. Renaming the user input updates all the references to the user input in the workflow.

- **Display Name**

Enables you to specify or edit the display name for the user input. You can specify a unique display name if you have created user input attributes with a similar name.

- **Description**

Enables you to specify or edit a description for the user input. The description appears as a tooltip when you execute or preview the workflow.

- **Type**

Enables you to select the type of user input. Fields or a link to a dialog box is displayed based on the selected options. Available options include the following:

- String: Enables you to enter a regular expression for valid values in the RegEx field—for example, a*.
- Number: Enables you to enter a numerical range in the Range field—for example, 1 to 15.
- Enum: Enables you to enter a closed list of values in the Enum Values field.
- Query: Enables you to enter a simple SQL query to obtain the result.

Users can select only the values from the first column of the result.

- Query (Multi-select): Enables you to enter an SQL query that obtains a list of values.

Users can select a single value or multiple values while executing the workflow—for example, you can select a single volume, multiple volumes, or volumes with their shares and exports.

You can select values from any column displayed in the result. Selecting a row selects the values from all the columns of the selected row.

- Boolean: Enables you to display a check box in the User Inputs dialog box.

- **Table:** Enables you to specify the column headers of the table that can be used to enter multiple values during the execution of the workflow—for example, a table that can be used to specify a list of node names and port names.

You can also configure the type of column user input and the properties associated with the column user input. A dialog box is displayed based on the selected user input type. Available options include the following:

- **String:** Enables you to enter a regular expression for valid values in the RegEx field—for example, `a*`.
- **Number:** Enables you to enter a numerical range in the Range field—for example, 1 to 15.
- **Enum:** Enables you to enter a closed list of values in the Enum Values field.
- **Query:** Enables you to enter a simple SQL query to obtain the result.

Users can select only the values from the first column of the result. A query within the column of the table user input cannot reference other user inputs within the query.

- **Boolean:** Enables you to select “true” or “false” as the boolean value from the drop-down list.
- **Password:** Enables you to encrypt a password that is provided as an input by the user.

When encrypted, the password is displayed as a sequence of asterisk characters across the WFA application and in the log files.

- **Dictionary:** Enables you to add the table data for the selected dictionary entry.

The dictionary entry attribute selects the attribute that is to be returned. You can select a single value or multiple values while executing the workflow. For example, you can select a single volume, multiple volumes, or volumes with their shares and exports. By default, single values are selected. You can also select Rules for filtering. A rule consists of a dictionary entry attribute, an operator, and a value. The attribute can also include attributes of its references. For example, you can specify a rule for aggregates by listing all aggregates with name starting with the string “aggr” and have an available size greater than 5 GB. The first rule in the group is the attribute `name`, with the operator `starts-with`, and the value `kaggr`. The second rule for the same group is the attribute `available_size_mb`, with the operator `>` and the value `5000`.

- **Lock Values**

Enables you to specify whether the user is allowed to input a value other than the query-returned values. Selecting the check box does not allow the user to provide a value; only the query-returned values can be selected. This option is used with the Enum and Query type options.

- **Default Value**

Enables you to set the default value of the user input.

- **Mandatory**

Enables you to specify whether user input is mandatory for the execution of the workflow.

Group

- **Group Name**

Enables you to group the related user input attributes together. The user input attributes are displayed in groups that you have defined when previewing or executing the workflow. For example, you can group the user input attributes related to Volume Details together.

- **Expand group by default**

Enables you to display all the user input attributes specified in a group as an expanded list. If the check box is not selected, the user input group appears collapsed.

Dependency

Enables you to enable a user input based on the value entered for another user input. For example, in a workflow that configures the NAS protocol, you can specify the required user input for protocol as “NFS” to enable the “read-write host lists” user input or “CIFS” to enable “CIFS ACL configuration”.

- **Choose user input to depend on**

Enables you to select the user input required to enable the user input displayed in the Variable Name field.

- **Applicable values (comma separated)**

Enables you to specify the value of the conditional user input that enables the user input displayed in the Variable Name field.

Preview Workflow dialog box

The Preview Workflow dialog box enables you to specify values for user inputs associated with a workflow and then to preview the execution of that workflow with the specified values.

User Inputs values

The Preview Workflow dialog box displays the user inputs associated with the selected workflow and enables you to set the values for user inputs.

Command buttons

- **Preview**

Opens the Monitoring window for the associated workflow.

- **Cancel**

Closes the dialog box.

Monitoring window

The Monitoring window displays details about results of the planning or execution phase of the workflow. The tabs in the window display read-only content. You can access this window from various areas of the WFA application when selecting the **Details**, **Preview**,

or **Execute** options.

- Status area
- Flow tab
- Details tab
- Execution Plan tab
- User Inputs
- Return Parameters tab
- History tab

Status area

The Status area above the tabs displays detailed information about the result of the planning or execution process.

- **Workflow status**

At the top of the window, a color-coded header displays the result of the planning or execution process:

- Green indicates a successful action—for example, Planning Completed or Execution Completed.
- Red indicates failure—for example, Planning Failed or Execution Failed.

- **Less/More info action**

This action link is available when the preview or execution process fails. You can toggle between **Less info** and **More info** using the action link. Depending on the action, the link opens or closes the information box to show more or less information about the failed result.

- **Detailed status**

This box is available when the preview or execution process fails. It displays details about the planning or execution process. When a process fails, this box is open by default and provides details of the cause of the failure.




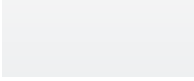



Flow tab

The Flow tab provides a graphical presentation of the workflow.

Commands and child workflows are displayed in the top row with their objects and variables displayed below. The status of the command details and child workflows during preview or execution is displayed using various colors.

The following table shows the following:

- The color scheme used to display the status of the command or workflow execution
- The icons used in the window

Color scheme and icon	Status
	Execution is successful
	Execution failed
	Execution is in progress
	Execution skipped
	Child workflow header
	Opens the logs
	The child workflow includes an approval point

Details tab

The Details tab provides more detailed information about the workflow. The information is provided in table format, with the commands in the header row and the associated objects and variables listed below. This tab provides each command with all of its arguments and parameters.

This tab is useful for debugging a failed preview or execution of the workflow.

Execution Plan tab

The Execution Plan tab provides a translated list of the workflow commands and their arguments that are being executed (scripts or commands).

You can use this tab for debugging a failed preview or execution of the workflow.

User Inputs tab

The User Inputs tab displays values entered by users during the preview or execution of the workflow.

You can use the sort arrows (▼ or ▲) in the column header to sort the column entries in ascending or descending order.

Return Parameters tab

The Return Parameters tab lists the output of the workflow, by parameter name and parameter value.

You can access these return parameters by using web services.

History tab

The History tab lists changes in the statuses for the workflow, when the status change occurred, who initiated the action, and the message associated with the status change.

Command buttons

- **Download Logs**

Enables you to download a zip file of all the log files, including the specific execution logs.

- **Column Visibility**

Enables you to show or hide columns in the Details tab.

- **OK**

Closes the Monitoring window.

New Approval Point dialog box

The New Approval Point dialog box enables you to add an approval point as a checkpoint in a workflow to pause the workflow execution and resume it based on your approval.

- **Enter comment (optional)**

Enables you to provide information, such as time of change, user, and comments, which enables you to see when and why the workflow execution was paused or resumed.

The approval point comments can include MVFLEX Expression Language (MVEL) expressions.

- **Enter the execution condition (if any)**

Enables you to specify conditions for the execution of a command:

- Always

Executes the command unconditionally.

- If the following variable was found

Enables you to execute a command only when the specified variable is found. You can specify the variable in the box.

- If the following variable was not found

Enables you to execute a command only when the specified variable is not found. You can specify the variable in the box.

- If the following expression is TRUE

Enables you to execute a command only when the specified MVEL expression is “true”. You can specify the expression in the box.

Command buttons

- **OK**

Enables you to add the approval point.

- **Cancel**

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

Edit Approval Point dialog box

The Edit Approval Point dialog box enables you to modify an approval point that was added as a check point in a workflow to pause the workflow execution and resume it based on your approval.

- **Enter comment (optional)**

Enables you to provide information, such as time of change, user, and comments, which enables you to see when and why the workflow execution was paused or resumed.

The approval point comments can include MVFLEX Expression Language (MVEL) expressions.

- **Enter the execution condition (if any)**

Enables you to specify the following conditions for the execution of a command:

- Always

Executes the command unconditionally.

- If the following variable was found

Enables you to execute a command only when the specified variable is found. You can specify the variable in the box.

- If the following variable was not found

Enables you to execute a command only when the specified variable is not found. You can specify the variable in the box.

- If the following expression is TRUE

Enables you to execute a command only when the specified MVEL expression is "true". You can specify the expression in the box.

Command buttons

- **Remove Approval**

Enables you to remove the approval point before the command is executed.

- **OK**

Enables you to modify the changes to the approval point settings.

- **Cancel**

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

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