



Managing Automation Packs

Automation packs are collections of configuration definitions of process definitions, target types, variables, categories, target groups, and other system elements needed to define a set of automated IT processes. The out-of-the-box automation definitions in automation packs allow customers to get productive quickly.

Automation packs allow users with the appropriate rights to export their own processes and share them with other customers in the community. Users can customize third-party automation packs and move them from one environment to another. Automation pack authors have control over how end users can override their automation definitions. The purpose of this control is to improve the ease of:

- Consuming future upgrades. Customers naturally expect that some amount of work is involved in upgrades. During an upgrade, all properties customized by users will be preserved. If a workflow is customized, it will be preserved. Process Orchestrator does not merge workflows. If any part of the workflow has been customized, all of the workflow will be left intact (no updates will be made to a customized workflow).
- Consuming patches and hotfixes for content. Customers do not expect these to be difficult or dangerous to consume.

An automation pack is a single file (package) that contains:

- Configuration (processes, categories, knowledge base articles, and so on)
- An optional custom configuration user interface that presents a wizard used to configure essential elements of the automation pack. For example, a configuration UI for SAP performance management might ask the user importing the automation pack to define the SAP systems that Process Orchestrator will manage and provide credentials to reach those systems.
- Report Definition files. These files are extracted into a directory during automation pack import, and can then be imported by the customer into their chosen reporting system
- External management system configuration files such as those to define alerts in a health monitoring application such as Microsoft System Center Operations Manager or HP OpenView SPI Modules.
- Binaries that the customer installs in an external system that the automation pack might require. For example, in Cisco Intelligent Automation for Cloud, Process Orchestrator provides the elements that can be imported into Cloud Portal to order cloud services.

The Administration workspace includes an Automation Pack view that displays the list of automation packs that have been imported. From this view, automation pack authors can create and export their own automation packs and share them with others in the community. Users can also export the customizations that they have made to third-party automation packs.

This is the typical process you will want to follow when you create an automation pack:

1. Create the basic automation pack—See [Creating an Automation Pack](#)

- [Adding Automation Pack Objects](#)
 - [Creating an Automation Pack Patch](#)
 - [Applying an Automation Pack Patch](#)
 - [Removing Automation Pack Objects](#)
 - [Refreshing References in an Automation Pack](#)
 - [Viewing Automation Pack Properties](#)
 - [Archiving Process Instances in an Automation Pack](#)
2. Verify it—See [Validating Automation Packs](#)
 3. Modify its settings as necessary—See [Controlling the Customization of Automation Pack Elements](#)
 4. Review its dependencies—See:
 - [Executing a Circular Dependency Check](#)
 - [Reviewing Automation Pack Validation Rules](#)
 - [Selecting Automation Pack Dependencies](#)
 5. Export it—See [Exporting an Automation Pack](#)
 6. Customize it— See:
 - [Exporting Customization Packs](#)
 - [Importing Customization Packs](#)

Creating an Automation Pack

Process Orchestrator Automation Package files include processes and other objects for Process Orchestrator. The defined automation packs included with the product are located in the install directory on the machine where the product was installed. Individual-created automation packs and customizations made to the third-party automation packs can be exported and reimported from one environment to another on an as-needed basis.

Each exportable object in Process Orchestrator supports at least two customization settings; you can tune these settings to control what customers can edit (see [Controlling the Customization of Automation Pack Elements](#)).

- No—The object is not customizable.
- Limited—Some object properties can be customized. The extent to which properties are customizable varies by object type; the controls for any non-customizable (immutable) property will be read-only. Most objects default to Limited.

Processes have three customization settings:

- No—Users have no process editing capabilities.
- Limited—This is the default setting, under which users can make the following changes:
 - Change the execution and archival option.
 - Change the default target and default runtime user.
 - Change the process input variable value. Users cannot add or create process variables (input or output), only the value of the input variables.
 - Add new triggers to the process.

- Enable/disable existing triggers. Users can remove only those triggers that they created from the process.
- Add category (assuming the category customization setting is set to limited).
- Remove category that is added by users (assuming the category customization setting is set to limited).
- Workflow—Users have near full control to edit processes with this setting. Under the Workflow setting, in addition to the above, users can make the following changes:
 - Edit the process workflow. If the process is shipped with some workflow, defined users can delete the existing workflow (activities).
 - Create process local or definition variables.
 - Delete process variables they have created.

Users cannot:

- Delete the process
- Change the input or output variables. Input and output variables are the API or the contract between parent and child process.
- Change the name, description, target type, or runtime user that the process can run against.

The best practice for authors, then, is to plan extension points. Most processes that an author ships in an automation pack would be locked down. Authors design specific points of extension, and embed calls to processes with workflow customization enabled for these extension points. The workflow for these extension point processes would be empty.



Note

You cannot export a process from an automation pack you do not own. Therefore, instead of creating your extension in the extension point itself, call a child process where you code the logic. In other words, the contents of an extension point should simply be an invocation of child processes, not activities within the extension point workflow. In this way, you can ship an automation pack with your extension. However, the call to this process must be coded into the extension point in each development, test, and production system.

Recommendations

- The functionality authored to extend the solution should be defined in terms of child processes, not activities within the workflow of the extension point.
- It should be exported separately from solution-packaged automation packs
- The functionality authored to extend the solution should be imported separately from solution-packaged content and stitched into the solution extension points.
- By passing target objects rather than specific parameters in to extension points, your automation becomes more extensible from a data perspective as well. For example, someone can come along and add more properties to some target type, and if the target is passed through to the extension point, this data is available.
- If XML is passed into a process request, it is a good idea to make this XML available to extension points as well, so that they are open to extension. Moreover, the child processes in the extension point can modify the target properties.

Before You Begin

You must have Process Orchestrator Administrator privileges to create an automation pack.

To create an automation pack:

Step 1 Choose **Administration > Automation Pack**, right-click and choose **New > Automation Pack**.

Step 2 If the automation pack file is a community automation pack, click the **About** tab, then check **Community Automation Pack**. This lets anyone modify and export this automation pack.



Note The Community Automation Pack check box is available only during automation pack creation, and cannot be turned on or off later. Use this feature with caution; it is mostly suitable if the author has no plans for maintaining and releasing new versions, and wants to post this automation pack as an “open source”.

Step 3 On the **General** tab, enter the required information.

Step 4 Click the **Objects** tab to add objects to the automation pack.

Step 5 Click the **Dependencies** tab to review the list of automation packs and adapter information referenced and required by the objects in the automation pack.

The Referenced Objects dialog box displays the list of objects in an automation pack that depends on an object in different automation pack. This dialog box is launched when an entry on the Dependencies tab is right-clicked and the **View Referenced Objects** option is chosen.



Note The dependent automation pack and required adapter lists will be updated when the automation pack properties is first opened or when there is a change to the **Objects** page, such as adding or removing an object.

Step 6 Click the **Import Custom Tasks** tab to view the list of custom tasks for the current automation pack. You can also add, edit, and remove the custom tasks from the property page.



Note The custom tasks is executed while importing an automation pack (.TAP).

Perform the following steps to add a custom task:

- a. Click **Add**, the **Import Custom Task** dialog box is displayed.
- b. Select task from the **Custom Task** drop-down list.
- c. Enter **Parameters**.



Note This is applicable only for custom tasks for which configurable parameters are available.

For example:

Execute PowerShell Script

You can enter the PowerShell Script in the parameters to configure this custom task.

- d. Click **OK** to save your changes.

Select the imported custom task and click **Edit**, the import custom task dialog box is displayed. Where you can edit the task.

Select the imported custom task and click **Remove** to remove the task from the list.

For certain custom tasks you need to enable the configuration settings. For more information, *see* [Setting Process Orchestrator Console Environment Properties](#).

- Step 7** Click the **Style Checker Selection** tab to select the rules you want to validate against an automation pack.
 - Step 8** Click the **Patches** tab to view the list of patches that are applied to the automation pack.
 - Step 9** Click **OK** to save your changes.
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Viewing Automation Pack Properties

Use the Automation Packs Properties property sheet to view or modify the processes and objects in an automation pack.

To view automation pack properties:

- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
 - Step 2** On the Automation Pack Properties property sheet, click the appropriate tab to review the properties.
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Importing Automation Packs

Use the Automation Pack Import Wizard to import product objects that are required to create and manage processes. The wizard automatically launches after the installation is complete and the automation pack initialization is completed. The wizard does not fully launch until after the automation server has started.



Note

Using the Automation Pack Import Wizard, you can only import an automation pack (.TAP). You cannot import a customization pack (.apc).

After the automation pack initialization is complete, the Select Automation Packs dialog box displays.

- Step 1** Check the check box to the left of each appropriate automation pack to be imported and click **OK**.
The available automation packs for import are dependent upon the product license. The Core automation pack will be imported first.
The Welcome to the Automation Pack Import Wizard panel displays.



Note

If you do not want to display the Welcome panel the next time the wizard is launched, check the Do not show this page next time check box.

- Step 2** Click **Next** to continue to the General Information Panel.
- Step 3** Check the **Disable all imported processes** check box if you want all processes to be disabled after being imported.

- Step 4** On the Email Keystore Password panel, specify password for Keystore file containing email digital signatures.
- Step 5** On the Email Configuration panel, specify the default SMTP server and sender's email address to be used for email activities, then click **Next**.
- Default SMTP server—The name of the SMTP server that is used as the default server for sending emails. This server name can be changed when configuring email activities that require a different server.
 - Default SMTP port—The port number for the SMTP server. This field is automatically populated with port number 25 but can be changed if necessary.
 - Default sender—The email address of the sender that is designated as the default sender for email activities.



Note The settings in this panel can be manually changed when configuring a specific email activity that requires a different SMTP server or sender email address.

- Step 6** On the Automation Summary Configuration panel, specify where the automation summary reports that are generated by activities are to be saved and how long the reports are to be retained, and click Next.
- Automation summary file share—Verify the default file path that the Cisco Process Orchestrator server will use when creating automation summary reports.

Click **Browse** to determine the file share location on the network where all the automation summary reports are stored or click the **Create a share on the current Orchestrator Server** link.



Note Verify that the UNC share file path is on a network where the Cisco Process Orchestrator service account has write permissions.

- Credentials—Enter the credentials for Cisco Process Orchestrator Server to access the file share.
- Virtual directory mapping—Select the Enable Virtual Directory mapping check box if you want to map the automation summary to an IIS Virtual Directory. This allows end-users easier access to automation summaries using email or the Cisco Process Orchestrator Web Console.

In the Virtual directory path box, enter the name of the virtual directory or click the **Create a virtual directory on the current Orchestrator Server** link to manually create a virtual directory on the local machine.



Note The file paths specified indicate the path that will be used when viewing the automation summary reports.

- Archiving Automation Summary Reports—Delete automation summary reports older than—Check this check box to limit the number of automation summary reports that are retained.
 - Enter the number of days that the reports should be retained in the text field.
 - Reports that have been retained for a period past the specified number of days will be deleted.

- Step 7** On the Data Extraction panel, under Specify the destination for the extracted data, verify the default location for where the Cisco Process Orchestrator-provided data files should be copied.

- Step 8** Under Select data to extract, check the appropriate check boxes to indicate which data files should be extracted.

**Note**

Reports should be imported after the Automation Pack Import Wizard is completed.

The Review Prerequisites panel displays.

- Name—Name of the prerequisite
- Status—Status shows whether the prerequisite was located on the computer
 - Passed—Correct item or version of item was on the computer
 - Failed—Correct item or version of item was not on the computer
- Complete—Percentage of computer checked when verifying prerequisite
- Description—Displays description of the prerequisite information or instructions to further requirements for the prerequisites to be installed.

The green check mark verifies that the prerequisite was located on the computer.

The red X determines that the prerequisite is not available on the computer. When this occurs, the import progress is stopped and cannot continue until all prerequisites have been met.

If you click **Cancel** during the import, the wizard will close and the automation pack will not be imported.

**Note**

If all prerequisites are passed, the wizard automatically continues to the next panel which displays the status of the automation pack objects being imported.

After the objects have been imported, the importing of the Core automation pack is complete.

Step 9 If other automation packs were selected to be imported, the wizard will relaunch for the next automation pack, otherwise click **Close**.

**Note**

If there is an existing object on the Cisco Process Orchestrator server, the Overwrite Objects dialog box displays. Click **Yes** or **Yes to All** to continue.

Related Topics

[Importing from the Console](#)

Importing from the Console


To use the Automation Pack Import Wizard from the Process Orchestrator console to import automation packs:

Step 1 Choose **Administration > Automation Packs**, right-click and choose **Import**.

Step 2 Select the automation packs to be imported and click **OK**.

You can import multiple Cisco automation packs from multiple directories. The Automation Pack Import Wizard will verify that all of the dependent automation packs already exist in the database, or in the list of automation packs to import, before allowing the import to continue.

The automation packs that are available for import depend on the product license.

- Step 3** When the Welcome to the Automation Pack Import Wizard panel displays, click **Next**.
- Step 4** On the General Information Panel, you can optionally check **Disable all imported processes** to indicate that all processes from this tab should be disabled by default after being imported.
- Step 5** Review the information about the automation pack, then click **Next**.
- Step 6** Some automation packs might include additional steps in the wizard to configure elements of that automation pack. Follow the instructions to perform each configuration.
- A Warning dialog box indicates that the listed objects within the automation pack may be incompatible with the current release of the product.
- Step 7** Some automation packs might include supplemental files that ship in the automation pack. These files are typically used to configure external systems, such as report definitions, that can be imported into your chosen reporting technology. If the automation pack includes these elements, you will see a Data Extraction panel. On this panel:
- Verify the default location for where the Process Orchestrator-provided data files should be copied.
 - Under **Select data to extract**, check the appropriate check boxes to indicate which data files should be copied, then click **Next**.
- Step 8** The Review Prerequisites panel displays the status of each prerequisite:
- The green check mark verifies that the prerequisite was met on the computer.
 - The red X determines that the prerequisite is not met on the computer. When this occurs, the import progress is stopped and cannot continue until all prerequisites have been met.
-  **Note** If all prerequisites are passed, the wizard automatically continues to the next panel which displays the status of the automation pack objects being imported. After the objects have been imported, the importing of the automation pack is complete.
- Step 9** If other automation packs were selected to be imported, the wizard will relaunch for the next automation pack. Otherwise, a Finish page will display the information about the automation packs that were imported. Click **Close**.

Related Topics

- [Creating an Automation Pack](#)
- [Exporting an Automation Pack](#)
- Cisco Process Orchestrator Installation Guide*

Extracting Data Files

Data files are embedded in some Process Orchestrator-provided automation packs. By default, you can extract these data files during the automation pack import process. However, if you decide not to extract the files at that time, use the following steps to extract the files in the automation pack to a location on the computer.

- Step 1** Choose **Administration > Automation Packs**, right-click and choose **Extract**.
- Step 2** Highlight the appropriate automation pack, then click **Open**.

- Step 3** In the Data Extraction dialog box, verify the default location for where the selected files are to be copied.
- Step 4** Check the check box to the left of the appropriate data file to indicate that the data file should be extracted, then click **OK**.
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Overwriting Existing Objects

Use the Overwrite Objects dialog box to confirm whether to overwrite existing objects that currently reside in Process Orchestrator. The Overwrite Objects dialog box displays only if both the following are true:

- The Cisco Process Orchestrator server contains existing objects with the same unique ID.
- The current user is the author of the object.

To overwrite the existing version of the object, check the check box to the left of the object, then click **OK**.

If the object belongs to a third-party automation pack, the object will be updated automatically. Any changed value of the object will be preserved.

Deleting Automation Packs

If you import the wrong automation pack, use the following steps to delete it from Process Orchestrator.



Note

Automation packs that have objects with dependencies cannot be deleted. First delete the dependent objects, then return to try deleting the automation pack again.

- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Delete**.
- Step 2** On the Delete Confirmation dialog box, uncheck the **Select the checkbox to delete all member objects** check box to keep all member objects in the product.



Note


This check box is available *only* to the automation pack's authors. If this check box remains checked, all objects in the automation pack will also be deleted.

- Step 3** Click **OK** to delete the automation pack.
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Working with Automation Pack Objects

Adding Automation Pack Objects

Use this option to add more objects to an automation pack.

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
- Step 2** Click the **Objects** tab, then click **Add** to add objects to the automation pack.
- Step 3** In the Select Object dialog box, click the **Filter by Object Type** drop-down list and choose the appropriate object type to filter the list of objects.
-  **Note** Objects that already belong to an automation pack will be filtered from this dialog box.
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- Step 4** Under Select Object, highlight the appropriate objects and click **OK**. Or click **New** to create an object to add to the automation pack.
- Step 5** Click **OK**.
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Creating an Automation Pack Patch

After shipping the automation pack to the customers, you might sometimes want to add or modify an object in the automation pack and then ship the modified object to another environment.

Using the Create Automation Pack Patch Wizard, you can easily create a patch by adding the objects that exists in the current automation pack to a .pat file and then export this patch file to another environment.

You can create and manage multiple patches for a single automation pack.

The Create Patch option displays only if the current user is the author of the automation pack. The user must also have Process Orchestrator Administration Privileges.

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Create a Patch**.
-  **Note** You need to be the author of the automation pack, otherwise the command will be grayed out (disabled).
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- Step 2** On the Create Automation Pack Patch Wizard panel, click **Next**.
- Step 3** On the Add Objects to the Patch panel, click **Add**.
- Step 4** Under Select Object, highlight the appropriate objects and click **OK**.
- Step 5** On the Select a Location panel, verify the default location for where the patch file is to be saved or click Browse...to select the location.
-  **Note** The patch file is saved as a .pat file.
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- Step 6** Verify the default version or specify the new version of the patch that is being created for the automation pack and then click **Next**.

- Step 7** Click **Close** to complete the create automation pack patch process.
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Applying an Automation Pack Patch

Patches can sometimes have a dependency on another automation pack or objects. They might also have dependency on another patch created for the same automation pack. Before applying the patch, verify that all the dependent automation packs, objects, and patches exists in the environment.



Note You can apply a patch on the same version of the automation pack on another environment.

- Step 1** Choose **Administration > Automation Pack**.

- Step 2** Highlight the appropriate automation pack, right-click and choose **Apply a Patch**.



Note You need to be an administrator in order to apply a patch, otherwise the command will be grayed out (disabled).

- Step 3** Select the patch file that you want to apply and click **Open**.

- Step 4** On the Apply Automation Patch Wizard, click **Close** to apply the automation pack patch.
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Viewing Patch Details

Using the View Patch Details wizard, you can view the version of the patch, the time when it was created, and the objects included in the patch.

- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.

- Step 2** Click the **Patches** tab, highlight the appropriate automation pack, and then click **View**.
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Removing Automation Pack Objects

Use this option to remove objects from an automation pack. Removing objects from the list of objects in the automation pack does not delete the object from the system.

- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.

- Step 2** Click the **Objects** tab, highlight the appropriate object and click **Remove**.

Step 3 Click **OK**.

Refreshing References in an Automation Pack

Use the following instructions to update list of objects in the Objects tab.

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- Step 1 Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
- Step 2 Click the **Objects** tab, then click **Refresh References** to update the list of references associated with the object, then click **OK**.
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Archiving Process Instances in an Automation Pack

Use the Automation Packs Properties property sheet to archive instances of all processes in an automation pack. When this option is checked, it will override and *force* an archive, regardless of the individual process archival setting.

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- Step 1 Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
- Step 2 In the **General** tab, click **Always archive all process instances in this automation pack**, then click **OK**.
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Validating Automation Packs

Automation pack authors are not always aware of best practices for creating content. In fact, the challenge is that the further removed one is from the product team, the less awareness there is of best practices.

Style checkers are sets of validation rules that run against an automation pack and its member objects to ensure that the automaton pack follows best practices. Some of the style checkers can be run against a process under development in the Process Editor. Some of the benefits that style checkers provide include:

- Automating best practice checks that QA performs on packaged content, including:
 - Ensuring that the content follows best practice guidelines.
 - Identifying issues with automation pack objects (broken references, missing required values).
- Raising the quality of packaged automation and automation created by Cisco Services, delivery partners, or customers.
- Tuning preferred checks per automation pack. Style checkers can be turned on or off based on need. For example, automation packs developed for in-house use might want to turn off some style checkers (such as target, or users included in automation pack).

- Embedded help for identified issues. Help topics notify users why a style check is added, and what the consequences might be if the warning is not resolved.

To run a style checker against an automation pack:

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
- Step 2** Click the **Style Checker Selection** tab to select the rules you want to validate against an automation pack (see [Controlling the Customization of Automation Pack Elements](#)), then click **OK**.
- Step 3** To start the validation process, you can either:
- Right-click on the automation pack and choose **Validate** from the context menu.
 - On the Process Editor, choose **File > Validate** to display the Style Checkers Selection dialog box.
- Note that:
- The automation pack validation action can be run on-demand or at export.
 - This menu item is disabled if you click an automation pack that you did not create.
 - Validation of an automation pack could take several minutes.
- Step 4** Click **OK**. The process validator will start processing the selected validation rules against the current process.
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Controlling the Customization of Automation Pack Elements

Use the Settings dialog box to define the customization settings for the objects included in an automation pack. These settings can only be modified by the automation pack author.



Note

This functionality (the Settings dialog box and Customization settings) is not available on “Community” automation packs; anyone can modify objects in those types of automation packs. For more information, see [Creating an Automation Pack](#).

When the automation pack author imports a newer version of the automation pack, the objects in the automation pack will replace the objects in the database.

When a third-party user imports a newer version of the automation pack, the customization setting of an object will determine whether user-customized values will be preserved.

The following are instances where an object customization will be lost:

- The author of the object no longer allows users to customize the object. Any customization of the object will be lost on upgrade.

For example, the global variable customization level is set to *Limited*. Users change the variable value. However, in the updated automation pack, the author no longer allows users to change the variable value, because the automation pack must have a particular value. Therefore, the customization level is now set to *No*.

- The object customization level is unchanged, but the schema of the object is changed. The old object is now obsolete and needs to be replaced.

To change the customization of an object:

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
 - Step 2** Click the **Objects** tab, highlight the appropriate object, then click **Settings**.
 - Step 3** In the **Settings** dialog box, click the **Customizable** drop-down list and choose the appropriate option, then click **OK**.
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Executing a Circular Dependency Check

Use the Circular Dependency Check command to perform an automation pack circular dependency check on the selected automation pack.

Before You Begin

- You can only run this test if you are the “author”.
- This command relies on the automation pack dependencies and their dependent automation packs dependencies (recursively) to be accurate. The command will not continue if it detects the automation pack or its dependent automation pack is not up to date.

To run this check, choose **Administration > Automation Packs**, highlight the appropriate automation pack (you must be the author), and choose **Circular Dependency Check**.

Reviewing Automation Pack Validation Rules

Before you export an automation (see [Controlling the Customization of Automation Pack Elements](#)), you should review the adapter and automation pack dependencies.

To review automation pack dependencies:

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
 - Step 2** Click the **Dependencies** tab to view the dependent automation pack and required adapter lists for the automation pack.

The dependencies will be updated when the automation pack properties is first opened or when there is a change to the Objects tab, such as adding or removing an object.
 - Step 3** Review the list of automation packs and adapter information referenced and required by the objects in the automation pack (see the Automation Pack Details and Required Adapters tables in [Controlling the Customization of Automation Pack Elements](#)), then click **OK**.
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Selecting Automation Pack Dependencies

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- Step 1** Choose **Administration > Automation Pack**, highlight the appropriate automation pack, right-click and choose **Properties**.
 - Step 2** Click the **Style Checker Selection** tab to select the rules you want to validate against an automation pack (see [Controlling the Customization of Automation Pack Elements](#)).
 - Step 3** Click **OK** to save your changes.
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Exporting an Automation Pack

The automation definitions included in Process Orchestrator Automation Packs can be exported. Exporting automation definitions allows them to be moved from one environment to another, creates a backup of the automation definition, and allows automation to be shared with another organization.

Use the Automation Pack Export Wizard to export an automation pack file to a designated file path on your computer.

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- Step 1** Choose **Administration > Automation Packs**, highlight the appropriate automation pack, right-click and choose **Export**.
 - Step 2** On the Welcome to the Automation Pack Export Wizard panel, click **Next**.
 - Step 3** On the Objects to Export panel, review the list of objects associated with the process being exported, then click **Next**.
 - Step 4** On the Dependencies panel, review the list of automation packs and adapter information referenced and required by the objects in the automation pack, then click **Next**.
 - Step 5** On the Prerequisite Selection panel, review the additional prerequisite information used to export the automation pack. Click **Select All** to select all the objects to be included when this automation pack is imported. Click **Unselect All** to clear the objects from selection.
 - Step 6** On the General Information panel, modify the version number for the automation pack, as necessary, and click **Next**.
 - Step 7** On the Export Location panel, in the File name text box, specify the name of the file and where the automation pack will be exported onto the computer, then click **Next**.
The Validate Objects panel displays progress of the object validation.
 - Step 8** On the Validate Objects panel, review the following information about the objects being validated, then click **Next**.
 - Step 9** Click **Close** to complete the automation pack export process.
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Automating Automation Pack Exports and Imports

You can use the automation pack export and import CLI to automate moving the self-authored or customization packs from development to test to production.

Use the PowerShell interface on the Process Orchestrator server (see [Using the PowerShell Snap-in CLI](#)) to get the syntax help for a command.

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- Step 1** Enter the following command to list all of the available commands:
- Get-Command *-Orchestrator***
- Step 2** Enter the Get-Help command to view the syntax help for the automation pack export and import commands.
- To view the syntax for exporting self-authored automation packs, enter:
Get-Help Export-OrchestratorAutomationPack -full
 - To view the syntax for importing self-authored automation packs, enter:
Get-Help Import-OrchestratorAutomationPackFile -full
 - To view the syntax for exporting customization packs, enter:
Get-Help Export-OrchestratorCustomizationPack -full
 - To view the syntax for importing customization packs, enter:
Get-Help Import-OrchestratorCustomizationPackFile -full
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Exporting Customization Packs

Automation Packs allow users to customize third-party processes and share them with other customers in the community. When you export a customized automation pack, the customized objects are exported to a customization pack and are saved with the extension .apc.

Use the Automation Pack Customization Export wizard to export the customized objects to a customization pack.

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- Step 1** Choose **Administration > Automation Packs**, highlight the appropriate automation pack that is customized, right-click and choose **Export Customized Objects**.
- Step 2** On the Welcome to the Automation Pack Customization Export Wizard panel, click **Next**.
- Step 3** On the Objects to Export panel, review the list of objects associated with the process being exported, then click **Next**.



Note

Not all customized values are exported to the customization pack. For example, if you customize the target value of a target that doesn't exist in the automation pack, such referenced target value is not exported to the customization pack.

- Step 4** On the Customization Export Location panel, specify the location of the file and the password to encrypt data in the data file, then click **Next**.

- File name—Specify the name of the file and where the automation pack will be exported onto the computer.
- Password to encrypt data in data file—Password used for encrypting data such as the password of the runtime user, target properties with the type secure string, and so on.
- Confirm the Password—Re-enter the password

Step 5 Click **Close** to complete the customized automation pack export process.

Importing Customization Packs

Before importing the customization pack, make sure that the same version of the automation pack that you used to customize already exists in the environment. Also, verify that all the dependent automation packs already exist in Process Orchestrator.

The customizations made to the automation pack can be imported on the same version of the automation pack that you customized.

Use the Automation Pack Customization Import wizard to import the customization pack.

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- Step 1** Choose **Administration > Automation Packs**, highlight the appropriate customization pack, right-click and choose **Import Customized Objects**.
- Step 2** Select the customization pack that you want to import and click **Open**.
- Step 3** On the Welcome to the Automation Pack Customization Import Wizard panel, click **Next**.
- Step 4** On the Decryption Password panel, enter the decryption password to decrypt the encrypted data.
The decryption password is the same as the encryption password entered while exporting the customization pack.
- Step 5** Click **Close** to complete the customized automation pack import process.

Using the Wizard

Launching the Import Wizard

Launch the Wizard and follow the steps as instructed.

Launching the Export Wizard

Launch the Wizard and follow the steps as instructed.

