



INTEGRATION PACK FOR RUNBOOK MANAGEMENT

For Microsoft System Center Orchestrator

For System Center 2016 and 2019, you must use the 32-bit version of the integration pack, which has the name **Keverion_Integration_Pack_for_Runbook_Management_4.0**

For System Center 2022 and later, you must use the 64-bit version of the integration pack, which has the name **Keverion_IP_Runbook_Management_x64_4.0**

Release Notes

Version 4.0

August 2024

Introduction

The **Kelverion Integration Pack for Runbook Management** is an add-in for Microsoft System Center Orchestrator that enables the automation of the following activities:

- Start an Orchestrator runbook job.
- Stop an Orchestrator runbook job.
- Get information about Orchestrator runbooks.
- Get information about Orchestrator runbook jobs.
- Get information about Orchestrator events.
- Monitor events in Orchestrator.

This integration pack allows the creation of workflows that interact with and transfer information to other Orchestrator Integrations. It uses the Orchestrator Web Service to integrate with Orchestrator's Runbook management functions.

System Requirements

The Integration Pack for Runbook Management requires the following software to be installed and configured before deployment. For further information about how to install and configure System Center Orchestrator see the respective product documentation.

Kelverion_Integration_Pack_for_Runbook_Management (32-bit)

- Microsoft System Center Orchestrator 2016, 2019
- Microsoft .NET Framework 4.6.2

Kelverion_IP_Runbook_Management_x64 (64-bit)

- Microsoft System Center Orchestrator 2022
- Microsoft .NET Framework 4.6.2

Both versions support integrating with an environment with at least one of these:

- System Center Orchestrator Web Service (2016, 2019)
- System Center Orchestrator Web API Service (2022)

Registering and Deploying the Integration Pack

After you download the integration pack, you register the integration pack file with the Orchestrator management server, and then deploy it to runbook servers and computers that have the Runbook Designer installed.

IMPORTANT: Ensure that you are deploying the correct version of the Integration Pack.

- For System Center 2016 and 2019, you must use the 32-bit version of the integration pack, which has the name **Kelverion_Integration_Pack_for_Runbook_Management**

- For System Center 2022 and later, you must use the 64-bit version of the integration pack, which has the name **Kelverion_IP_Runbook_Management_x64**

To register the integration pack:

1. On the management server, copy the **.OIP** file for the integration pack to a local hard drive or network share.
2. Confirm that the file is not set to **Read Only** to prevent unregistering the integration pack later.
3. Start the **Deployment Manager**.
4. In the navigation pane of the Deployment Manager, expand **Orchestrator Management Server**, right-click **Integration Packs** to select **Register IP with the Management Server**. The **Integration Pack Registration Wizard** opens.
5. Click **Next**.
6. In the **Select Integration Packs or Hotfixes** dialog box, click **Add**.
7. Locate the **.OIP** file that you copied locally from step 1, click **Open** and then click **Next**.
8. In the **Completing the Integration Pack Wizard** dialog box, click **Finish**.
9. On the **End User Agreement** dialog box, read the Kelverion License Terms, and then click **Accept**.
10. The **Log Entries** pane displays a confirmation message when the integration pack is successfully registered.

To deploy the integration pack:

1. In the navigation pane of the **Deployment Manager**, right-click **Integration Packs**, click **Deploy IP to Runbook Server or Runbook Designer**.
2. Select the integration pack you want to deploy, and then click **Next**.
3. Enter the name of the runbook server or computers with the Runbook Designer installed, on which you want to deploy the integration pack, click **Add**, and then click **Next**.
4. Continue to add additional runbook servers and computers running the Runbook Designer, on which you want to deploy the integration pack. Click **Next**.
5. In the **Installation Options** dialog box, configure the following settings.
6. To choose a time to deploy the integration pack, select the **Schedule installation** check box, and then select the time and date from the **Perform installation** list.
7. Click one of the following:
 - a. **Stop all running runbooks before installing the integration pack** to stop all running runbooks before deploying the integration pack.
 - b. **Install the Integration Packs without stopping the running Runbooks** to install the integration pack without stopping any running runbooks.
8. Click **Next**.

9. In the **Completing Integration Pack Deployment Wizard** dialog box, Click **Finish**.
10. When the integration pack is deployed, the **Log Entries** pane displays a confirmation message.

Known Issues and Limitations

1. When using the **Start Runbook** activity with the Web API Service (Orchestrator 2022), the target runbook must have unique input and output parameter names.
2. When filtering records with **Get** and **Monitor** activities, some filtering operations are performed client-side in the activity, after data has been retrieved from Orchestrator. This can be less efficient and affect activity performance. For more details please refer to the **Server-Side vs Client-Side Filters** section, as well as specific activity reference, in the User Guide.
3. There is a known issue when targeting the new Web API Service in System Center 2022 and later where you may encounter an error when requesting Runbooks. To work around this issue, run the following SQL against the Orchestrator Database:

```
GRANT CONTROL ON ASYMMETRIC KEY::[ORCHESTRATOR_ASYM_KEY] TO
[Microsoft.SystemCenter.Orchestrator.Admins]
GRANT CONTROL ON SYMMETRIC KEY::[ORCHESTRATOR_SYM_KEY] TO
[Microsoft.SystemCenter.Orchestrator.Admins]
GRANT EXECUTE ON
object::[Microsoft.SystemCenter.Orchestrator].[GetSecurityToken] TO
[Microsoft.SystemCenter.Orchestrator.Operators]
GRANT SELECT ON
object::[Microsoft.SystemCenter.Orchestrator.Internal].[Settings] TO
[Microsoft.SystemCenter.Orchestrator.Operators]
GRANT SELECT ON
object::[Microsoft.SystemCenter.Orchestrator.Internal].[AuthorizationCa
che] TO [Microsoft.SystemCenter.Orchestrator.Admins]
```

4. There is a [known issue](#) with System Center Orchestrator, in which the collection of runbooks recognized by the Orchestrator web service stops getting refreshed. As a result of this issue, the **Get Runbooks** activity may return zero runbooks or only a subset of runbooks.

To resolve this issue:

1. Open SQL Management Studio and connect to the SQL Server instance that is hosting your Orchestrator database.
2. Type in the following SQL Query:

```
USE Orchestrator
TRUNCATE TABLE
[Microsoft.SystemCenter.Orchestrator.Internal].AuthorizationCache
```

If the problem reoccurs, schedule a periodic cleanup of the Authorization table.

1. Open SQL Management Studio and connect to the SQL Server instance that is hosting your Orchestrator database.
2. Type in the following SQL Query:

EXEC [Microsoft.SystemCenter.Orchestrator.Maintenance].EnqueueRecurrentTask 'ClearAuthorizationCache'

This will establish a new SQL Service Broker conversation to flush the authorization cache every 10 minutes.

3. Keep your Orchestrator database in an optimized state so that the stored procedures that rebuild the Cache consistently complete in under 30 seconds, which will prevent the Cache build process from timing out.

Version History

Version 4.0

- Added support for System Center Orchestrator's new Web API Service (2022).
- Implemented server-side filtering for some of the legacy Web Service filters.
- Implemented a combination of **server-side** and **client-side** filtering to improve performance and support compatibility between Microsoft Orchestrator's two web-service frameworks. See **Server-Side vs Client-Side Filters** section in the User Guide for best practices.

Version 3.0

- Added new 64-bit product version with support for System Center Orchestrator 2022. (Requires you to install System Center Orchestrator 2019 Web Service)

Version 2.7

- Updated license agreement.

Version 2.6

- Fixed issue in *Get Runbooks* activity with accurately publishing *Folder Path* and supporting values over 260 characters long.

Version 2.5

- The **Start Runbook** activity now publishes runbook return data.
- Fixed publishing of *Runbook Server* and *Runbook Server ID* properties in the *Start Runbook* activity. These properties are now published only if *Wait for Completion* is set to True.
- The *Get Runbooks* activity now also publishes the parent folder path.
- Added input properties *Path* and *Folder Path* to *Get Runbooks* activity, for server-side filtering of runbooks.
- The IP now requires .NET Framework 4.5.2 (instead of 4.0).
- Added support for TLS 1.2
- Introduced new Configuration Option property *Skip Certificate Validation* to specify if the IP should be validating the server SSL certificate. This applies only when connecting to the server over HTTPS. The default value for this property is False and IP activities may fail, if you are using a self-signed certificate, or if the specified server name is not listed on the certificate. Please, ensure that the server is configured with a valid certificate signed by a valid certificate authority and that the specified server name is listed on the certificate. Alternately, for a secure network environment when working with at trusted server, you may choose not to validate the server certificate.

Version 2.41

- Fixed an issue in the Start Runbook activity where the optional Runbook Server property was being ignored.

Version 2.4

- Fixed a bug in the Start Runbook activity that was causing the Job ID to not be published correctly.
- Added the ability to wait for a job to complete when using the Start Runbook activity.

Version 2.3

- Updated Kelverion.Management.dll.
- New end user license agreement.

Version 2.2

- Added Get Events and Monitor Events.

Version 2.11

- Updated Kelverion.Management.dll.

Version 2.1

- Introduced a new licensing model that distinguishes evaluation, production and non-production licenses. Evaluation licenses enable the integration pack to run on any Runbook Server and are valid for a specified number of days from the start of the evaluation. Production and non-production licenses enable the integration pack to run on a predefined set of Runbook Servers, the names of which must be provided to Kelverion before the license can be generated. Furthermore, each license file can now enable multiple integration packs thus eliminating the need to have separate license files for each integration pack that you have in your environment.
- **IMPORTANT:** If you are upgrading an existing deployment of this integration pack you must contact your sales contact or info@kelverion.com to obtain a new license before upgrading to this version.

Version 2.0

- Added support for System Center 2012 R2 Orchestrator.

Version 1.2

- Added support for retrieving runbooks using filter criteria that you specify.
- Added support for retrieving runbook jobs using filter criteria that you specify.