

# Kelverion Integration Module for Data Manipulation

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## Release Notes

*Version: 1.1*

*Released: October 2019*



## Introduction

The Kelverion Integration Module for Data Manipulation is a new Integration Module for Runbook Studio and Azure Automation that lets you parse, compose and manipulate XML and JSON.

The integration module includes the following activities:

Activity	Description
Apply-Xslt	Used in a runbook to apply an XSL transformation on input XML.
Compose-Text	Used in a runbook to compose text (xml, html or text) from the specified inputs.
Convert-XmlToJson	Used in a runbook to convert JSON formatted text into XML.
Convert-JsonToXml	Used in a runbook to convert XML text into JSON text.
Parse-Text	Used in a runbook to parse a text (xml, html or text).

## System Requirements

The Integration Module for Data Manipulation requires the following software to be installed and configured prior to implementing the integration.

- Kelverion Runbook Studio 3.4
- Microsoft .NET Framework 4.6.2
- Azure Automation account

The Integration Module for Data Manipulation supports Azure Automation and Service Management Automation (SMA) platforms:

- Azure Automation requirements:
  - Azure Automation account
  - Hybrid Worker Group with at least one Hybrid Worker (required to access on-premises resources)
- SMA requirements:
  - System Center 2016 SMA
  - At least one Automation Worker

## Installing the Integration Module from PowerShell Gallery

You can install the Integration Module directly from the PowerShell Gallery to your Azure Automation Account and Hybrid Workers. If you want to build runbooks in Keverion Runbook Studio using the integration module you must also install it on your Runbook Studio host system.

### To install the Integration Module for Runbook Studio:

1. Confirm you have the latest PowerShellGet module. See online documentation for more information: <https://www.powershellgallery.com/>
2. Start a PowerShell window as Administrator and run the command:  
**Install-Module -Name Keverion.DataManipulation**

### To install the Integration Module in Azure Automation:

1. Go to the PowerShell Gallery URL:  
<https://www.powershellgallery.com/packages/Keverion.DataManipulation>
2. Click the button “**Deploy to Azure Automation**” and you will be redirected to the Microsoft Azure portal.
3. Select your Automation account and click **OK** to upload the module.

### To install the Integration Module on a Hybrid Worker:

1. Confirm you have the latest PowerShellGet module on your Hybrid Worker computer. See online documentation for more information: <https://www.powershellgallery.com/>
2. Start a PowerShell window as Administrator and run the command:  
**Install-Module -Name Keverion.DataManipulation**

## Installing the Integration Module Manually

After download the integration module, you must upload it to your Portal and Worker hosts. If you want to build runbooks in Keverion Runbook Studio using the integration module you must also install it on your Runbook Studio host system.

### To install the Integration Module for Runbook Studio:

1. Copy the **Keverion.DataManipulation.zip** to your computer.
2. Right click on the file and select properties. Unblock the file if it is blocked.
3. Unzip the **Keverion.DataManipulation.zip** file.
4. Copy the **Keverion.DataManipulation** folder to a location in the `%PsModulePath%` path.

### To install the Integration Module in Azure Automation Portal:

1. Go to your automation account and select **Assets**.
2. In **Assets** select **Modules**.
3. In **Modules** select **Add a module**.
4. In **Upload File** field, select the **Keverion.DataManipulation.zip**.
5. Select **OK** to upload the module.

### To install the Integration Module on a Hybrid Worker:

1. In the Keverion Runbook Studio or Microsoft Azure portal:
  - a. Create an Runbook with the following PowerShell: `$Env:PSModulePath`.
  - b. Test this runbook on the Hybrid Worker and record the output for use in Step 5.
2. Copy the **Keverion.DataManipulation.zip** to your Hybrid Worker computer.
3. Right click on the file and select properties. Unblock the file if it is blocked.
4. Unzip the **Keverion.DataManipulation.zip** file.
5. Copy the **Keverion.DataManipulation** folder to a location in the path returned in Step 1b.

Note: The Hybrid Worker uses its own unique value for `%PSModulePath%`, and will differ from that of the system.

### To install the Integration Module in SMA 2016:

1. Go to your Service Management Portal and select **Automation**.

2. In Automation select **Assets**, and then at the bottom select **Import Module**.
3. In the Import Integration Module dialog, select **Browse for file...** and select the **Kelverion.DataManipulation.zip**.
4. Select the Complete **checkmark** to upload the module.

#### To install the Integration Module on an SMA Automation Worker:

1. In the Service Management Portal:
  - a. Create an Runbook with the following PowerShell: **\$Env:PSModulePath**.
  - b. Test this runbook on an Automation Worker and record the output for use in Step 5.
2. Copy the **Kelverion.DataManipulation.zip** to your Automation Worker computer.
3. Right click on the file and select properties. Unblock the file if it is blocked.
4. Unzip the **Kelverion.DataManipulation.zip** file.
5. Copy the **Kelverion.DataManipulation** folder to a location in the path returned in Step 1b.

Note: The Automation Worker uses its own unique value for %PSModulePath%, and may differ from that of the system.

## Licensing the Integration Module

Licenses for Kelverion Integration Modules are managed and deployed using Kelverion Runbook Studio.

Register an Integration Module license with Runbook Studio:

1. Open Kelverion Runbook Studio
2. In the **File** tab, click **About**.
3. Click **License Information**.
4. Click the **Integration Modules** tab.
5. Click **Add License**.
6. Select the integration module license file (\*.kaml) and click **Open**.
7. You should see your entitlements displayed in the list.
8. Click **OK**.

**Note:** Entitlements will not display until after the Integration Module has been installed on the Runbook Studio computer.

License keys are distributed to Azure using connection assets. To Create a Connection Asset with a license key and upload it to Azure, do the following:

1. In the **Home** tab, click **Sign In**.
2. Select the Azure Automation Account that will contain the connection.
3. Click **New Asset** and click **Connection**.
4. In the **Name** field, enter a name to identify the connection.
5. In the **Connection Type** field, select the desired connection type.
6. Enter the appropriate connection information in the provided fields.
7. Click **OK**.

To update all Connection Assets to use the latest license key and upload it to Azure, do the following:

1. In the **Home** tab, click **Sign In**.
2. Click **Azure (Online)**.
3. Right-click the Azure Automation Account that contains the connection assets you would like to update.
4. Click **Update License Keys**.
5. A summary dialog is displayed, listing all updated connection assets.

## Changes History

### Version 1.1

- Improved error message when no valid licenses are found.